2024 Abstracts
40th Annual Meeting of the American Society for Metabolic and Bariatric Surgery

June 9th- 13th, 2024
San Diego Convention Center
San Diego, California

About the American Society for Metabolic and Bariatric Surgery

The ASMBS is the largest national society for this specialty. The vision of the Society is to improve public health and well-being by lessening the burden of the disease of obesity and related diseases throughout the world.

Founded in 1983, foremost American surgeons have formed the society's leadership and have established an excellent organization with educational and support programs for surgeons and integrated health professionals. The purpose of the society is to advance the art and science of metabolic and bariatric surgery by continually improving the quality and safety of care and treatment of people with obesity and related diseases by:

- Advancing the science of metabolic and bariatric surgery and increasing public understanding of obesity.
- Fostering collaboration between health professionals on obesity and related diseases.
- Providing leadership in metabolic and bariatric surgery the multidisciplinary management of obesity.
- Advocating for health care policy that ensures patient access to prevention and treatment of obesity.
- Serving the educational needs of our members, the public and other professionals.

Educational Overview and Information

Purpose

The American Society for Metabolic and Bariatric Surgery is committed to providing tools for physicians and integrated health professionals as they participate in the Maintenance of Certification program, a lifelong learning process which includes areas of self-assessment and quality improvement of practice performance by physician specialists. Presentations of papers submitted from the most current research, as well as invited lecturers, promote the exchange of information and experiences between those practiced in bariatric surgery and newcomers to the field. The Scientific Session is offered as a culmination to the selection of courses presented in various learning formats designed to meet the needs of the learner. The primary goal is continual

improvement in competence and performance of those in the field of bariatric surgery which will result in improved patient outcomes.

Target Audience

The conference is designed for all clinical and academic surgeons and support staff, including any health professional involved in the care of the patient with obesity, who wish to increase their knowledge of the surgical and perioperative management of the patient with obesity. The conference is also designed for those seeking practical pearls and hands-on experience to modify their practice and thereby achieve more favorable patient outcomes.

Educational Objectives

Upon completion of this conference, physicians and support staff should be able to:

- Define, discuss, and solve specific challenges in the treatment of patients who suffer from obesity and obesity-related metabolic diseases and conditions
- Describe the development and use of new techniques to achieve weight loss by surgery in patients with obesity
- Examine the broad scope of patient care services
- Identify the specific needs of bariatric patients and assist in targeting their care in a coordinated multidisciplinary team effort

Accreditation Statements

The American Society for Metabolic & Bariatric Surgery is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The American Society for Metabolic and Bariatric Surgery designates this educational activity for a maximum of 30.25 AMA PRA Category 1 Credit™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Nursing Credits up to 30.25 CE contact hours are provided by Taylor College, Los Angeles, California possibly may not be accepted for national certification. Provider is approved by the California Board of Registered Nursing, provider number CEP-3285, for the stated number of contact hours.

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and ASMBS. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education

(ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.
Amedco LLC designates this live activity / enduring materials for a maximum of 28.50 live / 95.25 enduring Psychologist contact hours.

As a Jointly Accredited Organization, Amedco is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. Amedco maintains responsibility for this course. Social Workers completing this course receive 28.50 live / 95.25 enduring GENERAL continuing education credits.

Educational Disclaimer
The primary purpose of this conference is education. Information presented, as well as publications, technologies, products, and/or services discussed, are intended to inform you about the knowledge, techniques, and experiences of bariatric surgeons who are willing to share such information with colleagues. A diversity of professional opinions exists in bariatric surgery, and the views of the conference's faculty are offered solely for educational purposes. Faculty's views neither represent those of the ASMBS nor constitute endorsement by the Society. The ASMBS disclaims any and all liability or damages to any individual attending this conference for all claims, which may result from the use of information, publications, technologies, products, and/or services of the meeting. Faculty disclosure statements have been requested from the speakers and will be presented in the conference materials.

Table of Contents

Top Papers Session I

Tuesday, June 11th, 2024
8:00 AM – 9:30 AM

A420

The Long Term (15 year) Impact of Bariatric Surgery on Conversion from Pre-Diabetes to Type II Diabetes Mellitus.

John Nguyen-Lee *Danville PA*[1], Michael Furey *Dallas PA*[2], Craig Wood *Danville PA*[1], Luis Pina *Danville PA*[1], Mark Mahan *Danville PA*[1], Ryan Horsley *Scranton PA*[1], Benefsha Mohammad *Danville PA*[1], Alexandra Falvo *Scranton PA*[1], Christopher Still *Danville PA*[1], Peter Benotti *Danville NY*[1], Anthony Petrick *Danville PA*[1], Vladan Obradovic *Manlius NY*[1], David Parker *Danville PA*[1] Geisinger Medical Center[1] Geisinger Wyoming Valley (GWV)[2]

Introduction

There is a paucity of literature on the impact of bariatric surgery on the conversion from pre-diabetes (PDM) to Type II Diabetes Mellitus (T2DM). The aim of this study was to evaluate the conversion to pre-diabetes to DM in bariatric surgery compared to a non-surgical cohort.

Methods

This retrospective study of morbidly obese patients with PDM patients who underwent Roux-en-Y gastric bypass (RYGB) or sleeve gastrectomy (SG) between 2001-2022. Non-surgical controls from a primary care cohort were propensity matched by hemoglobin A1c, age, sex, and BMI. DM was defined as a clinical diagnosis of T2DM or hemoglobin A1c≥6.5%. Kaplan-Meier analysis was used to estimate time until T2DM within bariatric patients. Cox regression was used to compare time until T2DM in RYGB versus SG and in bariatric surgery versus non-surgical controls.

Results

We identified 1326 bariatric cases with PDM (n=1154 RYGB, n=172 SG). The cohort was 83% female, mean age=45.3, mean BMI=46.9 kg/m^2, and median follow-up=7.2 years. The T2DM conversion at 5, 10, and 15 years postoperative was 1.8%, 3.3%, and 6.7%, respectively. The T2DM conversion was 20-times higher in matched non-surgical controls at 5, 10, and 15 years, 31.1%, 51.4%, and 68.7%, respectively (HR=19.8, 95% CI=[13.9-28.4], p<0.0001). When stratifying by surgery type, those with SG were 4-times more likely to convert to T2DM versus RYGB (HR=4.01, 95% CI=[1.71-9.39], p=0.0014).

Conclusion

Bariatric Surgery significantly decreases the conversion from pre-diabetes to T2DM. The impact of preventing conversion to T2DM was significantly higher for RYGB compared to SG.

A266

Outcomes for knee arthroplasty candidates who undergo bariatric surgery: interim analysis of SWIFT trial results

(This research was conducted with support by the Investigator-Initiated Study Program (Grant #ETH-14-621) of Ethicon Endo-Surgery, Inc.)

Steven Em *New York NY*[1], G Craig Wood *Danville PA*[2], Peter Benotti *Southold NY*[3], Manish Parikh *New York NY*[1], Jonathan Samuels *New York NY*[4], Ran Schwartzkopf [4], Alexander McLawhorn *New York NY*[5], Christine Ren-Fielding *new York NY*[4], James Browne *Charlottesville VA*[6], Peter Hallowell [7], Benjamin Ricciardi *Rochester NY*[8], Brian McGrath [9], Aaron Hoffman [9], Christopher Still *Danville PA*[3]
Bellevue Hospital Nyu[1] Geisiinger Medical Center[2] Geisinger Medical Center[3] NYu medical Center[4] Hospital for Special Surgery NY[5] University of Virginia[6] UVA bariatrics[7] University Rochester Medical Center[8] University at Buffalo[9]

Introduction: The SWIFT trial is a multi-site, prospective trial comparing knee physical function outcomes in total knee arthroplasty (TKA) candidates with severe obesity who undergo bariatric surgery prior to TKA versus TKA only. This preliminary analysis evaluates changes in knee function for patients who underwent bariatric surgery.

Methods: Patients with bariatric surgery and > 6 months postoperative follow up were evaluated for changes in outcomes including TKA deferral, improvement in Knee Injury and Osteoarthritis Outcome Score (KOOS, 10-point increase), and improvement in Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC, 16% reduction). Multiple logistic regression was used to assess the association of patient characteristics with knee outcomes.

Results: Of 66 bariatric surgery patients, 46 (23 RYGB; 23LSG) completed surgery with adequate follow up; age 53±10; BMI 46±8; female 83%. Comorbidity: 54% OSA; 41% diabetes; 67% hypertension. 51% of patients deferred TKA because of knee improvement; 68% and 64% achieved improvement in KOOS and WOMAC, respectively. In multiple regression, surgery type, age, and gender were not associated with knee outcomes. Lower pre-surgery BMI was associated with greater TKA deferral (p=0.0052), greater KOOS improvement (p=0.018), and greater WOMAC improvement (p=0.038). Higher comorbidity burden was associated with reduced likelihood of TKA deferral (p=0.012), and lower chance of both improved KOOS and WOMAC (p=0.05 and P0.010 respectively).

Conclusion: Bariatric surgery in patients eligible for TKA leads to improved knee function and short-term avoidance of TKA with optimization of outcomes associated with lower BMI and reduced disease burden.

A461

Metabolic Disease Remission Rates after Gastric Bypass are Dependent on Pre-Operative Disease Severity: Use of a New Objective Metabolic Scoring System

Annie Wang *Sacramento CA*[1], Victoria Lyo *Sacramento CA*[1], John Lew *SACRAMENTO CA*[1], Tiffany Wong *Sacramento CA*[1], Hazem Shamseddeen *Sacramento CA*[1], Shushmita Ahmed *Sacramento CA*[1], Mohamed Ali *Sacramento CA*[1]
University of California Davis[1]

Background

Severity stratification and longitudinal evaluation of metabolic comorbidities in response to Roux-en-y gastric bypass (RYGB) are not standardized. We updated our previously published comorbidity severity scoring system to combine treatment and biochemical data and develop a more objective Assessment of Obesity-related Metabolic Comorbidities (AOMC) system, which assigns comorbidity severity on a 6-point scale to more precisely and reproducibly measure metabolic disease response to RYGB.

Methods

AOMC scores (Table 1) for diabetes (DM), dyslipidemia (DYS), and hypertension (HTN) were calculated pre- and post-operatively (1-, 2-, and 5-years) in patients who underwent RYGB over 5 years at our academic institution. AOMC trends were tested with Chi-squared analysis and post-hoc Fisher's exact tests.

Results

Of 351 patients, 214, 188, and 303, presented with any DM, DYS, or HTN respectively. Overall, one-year remission rates were: DM 57.1%, DYS 59.7%, HTN 29.3%. Over 5 years post-RYGB, remission rates declined for DM (Figure A, $p<0.05$) and DYS (Figure B, $p<0.05$), but remained steady for HTN (Figure C, $p>0.05$). Furthermore, remission was associated with preoperative disease severity: those with pre-metabolic disease had the highest remission rates (i.e. one-year: pre-DM 81.4%, pre-DYS 91.4%, pre-HTN 53.5%, Figure D-F blue, all $p<0.05$), while those with most severe scores preoperatively (untreated/poorly-controlled) had the lowest remission rates (Figure D-F).

Conclusions

AOMC allows precise assessment of comorbidity severity and disease-specific postoperative quantification of comorbidity responses and remission rates. These findings can guide preoperative metabolic disease optimization and postoperative metabolic recovery expectations as well as standardize communication regarding comorbidity severity.

A478

Left Ventricular Assist Device and Bariatric Surgery: Outcomes from MBSAQIP

Scott Mu *Newark NJ*[1], Moamena El-Matbouly *Hawthorne NJ*[2], Alan Saber *Newark NJ*[2]
Rutgers New Jersey Medical School[1] Newark Beth Israel Medical Center[2]

Background:

Obesity is a known contributor to heart failure, and many patients with end-stage heart failure are being managed with left ventricular assist device (LVAD) implantation. Previous studies of bariatric surgery outcomes of patients with history of LVAD implantation are largely from single- institutions, with small sample sizes.

Methods:

We used the 2022 version of MBSAQIP to understand nationally representative outcomes after bariatric surgery for patients with history of LVAD. We analyzed the baseline characteristics and preoperative comorbidities, and tabulated the occurences of postoperative complications within 30 days.

Results:

In total, 120 patients in the 2022 version of MBSAQIP had a recorded history of LVAD implantation. Patients generally had multiple comorbidities, including diabetes (38%), hypertension (84%), anticoagulation (63%), and ASA class of III and IV (37%, 60%). The most commonly performed procedure was laparoscopic sleeve gastrectomy (79%), followed by laparoscopic roux-en-y gastric bypass (13%). 10 (8.3%) of patients required a transfusion in the 72 hours after the procedure, and 3 (2.5%) experienced gastrointestinal tract bleeding. In this group, 2 (1.7%) had a reintervention, 7 (5.8%) had a reoperation, 12 (10%) had a readmission, and 1 (0.8%) experienced death within 30 days. All but 1 patient (99%) were able to be discharged home after their procedure.

Conclusion:

Excellent outcomes after bariatric surgery can be achieved for patients with previous history of left ventricular assist device placement. Further study is needed to understand the comparative risks and benefits of different bariatric procedures for this high-risk population.

A049

Survival Crossroads: Unveiling the Impact of Progressive Chronic Kidney Disease Stage on Post Operative Outcomes in Metabolic Surgery—A Propensity Matched Analysis

Florina Corpodean *New Orleans LA*[1], Michael Kachmar *Baton Rouge LA*[1], Kyle LaPenna *New Orleans LA*[2], Denise Danos *New Orleans LA*[2], Michael Cook *New Orleans LA*[2], Philip Schauer *Baton Rouge LA*[1], Vance Albaugh *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

Introduction:
Metabolic surgery (MS) improves renal parameters for individuals with obesity and chronic kidney disease (CKD). Despite recognized benefits, concerns persist about the perioperative safety for CKD patients undergoing MS. This study aimed to identify the CKD stage associated with the most significant increase in postoperative complications.

Methods:
Using the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database (2017-2021), patients undergoing laparoscopic gastric sleeve (SG), or Roux-en-Y gastric bypass (RYGB) were identified. Propensity-matched comparisons were conducted to investigate the risk of adverse outcomes associated with progressive CKD.

Results:
A total of 531,701 patients (359,106 without CKD and 172,595 with CKD stages I-V), were examined. Endpoints included infection, serious complications, length of stay (LOS) >5 days, major adverse cardiovascular events (MACE), and death. Both SG and RYGB groups exhibited linear increases in odds of serious complications, MACE, and LOS >5 days with advancing CKD stage. Stage III demonstrated the highest odds for death in both SG (OR = 3.00, 95% CI [1.89, 4.76]) and RYGB groups (OR = 2.10, 95% CI [1.25, 3.52]), while only infection was increased in the SG group, OR 1.12 (95% CI [1.02, 1.22]).

Discussion:
While it is generally accepted that increasing CKD stage correlates with higher surgical risk, this analysis identified CKD stage III as a major inflection point for risk of infectious complications and death. These findings are useful for preoperative counseling and procedure selection and suggest a need for heightened attention to patients in this CKD stage undergoing MS.

Top Papers Session II

Tuesday, June 11th, 2024
10:15 AM – 12:00 PM

A112

The safety profile of One-Anastomosis Gastric Bypass compared to Roux-en-Y Gastric Bypass: A MBSAQIP analysis

Seyed Arshad *Milwaukee WI*[1], Benjamin Clapp *El Paso TX*[2], Sarah Samreen *Galveston TX*[3], Sabrena Noria *Columbus OH*[4], Michael Edwards *Ponte Vedra Beach FL*[5], Tammy Kindel *Milwaukee WI*[1]
Medical College of Wisconsin (MCW)[1] El Paso Bariatric Surgery[2] UTMB[3] OSU MC[4] Mayo Clinic[5]

Introduction:
One anastomosis gastric bypass (OAGB) is an ASMBS-endorsed bariatric surgery. As utilization of OAGB increases, it is important that the safety profile of OAGB be rigorously assessed. We therefore aimed to study the 30-day safety of OAGB compared to a similar gastro-jejunal anastomotic procedure, Roux-en-Y gastric bypass (RYGB).

Methods:
A matched case-control study was conducted of patients (Age 13-80) who underwent primary gastric bypass surgery 2021-2022, identified in the MBSAQIP database. Each patient who underwent OAGB was matched to 4 controls who underwent RYGB on age (+/-10), sex, race, body mass index (+/- 5 kg/m^2), preoperative functional status, American Society of Anesthesia (ASA) classification, and 13 comorbidities. Univariate, multilevel and multivariate regression analyses were performed.

Results:
1569 patients who underwent OAGB were matched to 6276 controls. Matched baseline characteristics were similar between groups. Operative time, length of stay (LOS), and overall complication rate were lower in the OAGB cohort ($p<0.001$, Table), despite higher 30-day BMI loss percentage ($p=0.048$). OAGB was associated with a significantly lower bowel obstruction rate, as compared to RYGB (0.1% vs 1.0%, $p<0.001$). On logistic regression adjusting for all variables used in matching, OAGB was associated with a 27% decrease in overall complication rate (OR 0.73, 95% CI 0.62-0.87, $p<0.001$) (Image).

Conclusions:
Although OAGB is minimally utilized, the 30-day safety profile appears favorable. As compared to RYGB, OAGB was associated with shorter operative time, shorter LOS, and a lower complication rate, partially due to minimization of small bowel obstructions with a loop anatomy.

A109

Duodeno-ileal magnetic anastomosis with Sleeve Gastrectomy: 12-months data from a prospective multicenter study

Laurent Biertho *Ville de Québec* [1], Simon Marceau *Quebec* [2], Stefane Lebel *Quebec* [2], Andre Tchernof *Quebec City* [2], Thomas Ransom [3], Richard Spence [3], James Ellsmere *Halifax* [3]
Quebec Heart and Lung Institute[1] Laval University[2] Dalhousie University[3]

Background

Magnetic digestive anastomosis has the potential to reduce anastomotic complications and complexity. We report the 1-year results of a new surgical technique using Self-forming Nitinol magnet Anastomosis Procedure with Sleeve gastrectomy (SNAP-S, GI-Windows).

Methods

Prospective non-randomized multicenter trial. Surgery consisted in creating a side-to-side duodeno-ileal anastomosis at 300cm from IC valve, using circular magnetic anastomosis. The proximal magnet was deployed by endoscopy and the distal one by laparoscopy. A sleeve gastrectomy was performed at the same time. Data is reported as Mean±Standard Deviation for continuous variable or percentage for non-continuous ones.

Results

A total of 19 participants were recruited, with a mean age of 45 (28-59) years, sex-ratio (%F) of 74% and initial BMI of 42.6±4.9kg/m^2. All patients had T2D with an initial Hemoglobin A1c (HbA1C) of 7.3±1.3%. All procedures were performed using a combination of endoscopy and laparoscopy. There was no conversion or peri-operative mortality. A total of 41 procedure related adverse events were recorded during the 12-month follow-up. Seven events in 4 subjects were considered serious. Total Weight Loss at 3, 6 and 12 months was 22±19%, 28±19% and 35±19%, respectively. All patients had an HbA1c≤6.0% at 12 months with a mean HbA1C of 5.1±0.5% and a mean absolute drop of 2.2%.

Conclusion

Data at 12-months suggest that SNAP-S procedure is feasible and safe and provides significant weight loss and improvement of comorbidities. Additional prospective data is required.

A238

Pumping the Brakes on Robotic Sleeve Gastrectomy: MBSAQIP Database Analysis of Over 600,000 Cases Shows Higher Complication Rates Compared to Laparoscopic

Graham Spurzem *La Jolla CA*[1], Hannah Hollandsworth *SAN DIEGO CA*[1], Ryan Broderick *La Jolla CA*[1], Santiago Horgan *San Diego CA*[1]
University of California, San Diego[1]

Introduction

The use of robotic-assisted bariatric surgery is growing. The optimal approach to minimize complications remains unclear. We compare outcomes for robotic and laparoscopic bariatric surgery cases over an eight-year period using the MBSAQIP database.

Methods

Analysis of the MBSAQIP database was performed on patients who underwent primary sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) from 2015 to 2022. Revisions, conversions, cases converted to another approach, and combined cases were excluded. 30-day outcomes for robotic and laparoscopic cases were compared. T-test was used for continuous variables and chi-square test for categorical variables with $p < 0.05$ considered significant.

Results

855,046 patients were identified (619,320 SG; 235,726 RYGB). From 2015 to 2022, the percentage of SG and RYGB performed robotically increased from 6.7% and 6.4% to 29.5% and 31.8% respectively. Robotic SG and RYGB operative times were significantly longer than laparoscopic (SG: 88.1 ± 38.4 vs 64.4 ± 32.5 min; RYGB: 147.3 ± 57.5 vs 113.3 ± 50.3 min, $p < 0.001$). Robotic SG had a significantly higher risk of postoperative leak (0.19% vs 0.14%, $p < 0.001$) and GI bleeding (0.27% vs 0.21%, $p = 0.01$). Robotic RYGB had a significantly higher risk of readmission (5.4% vs 5.1%, $p < 0.01$) and lower GI bleeding risk (0.62% vs 0.75%, $p < 0.05$) without difference in leak rate (0.3% vs 0.3%).

Conclusion

This analysis demonstrates that robotic SG has higher complication rates and longer operative times compared to laparoscopic. Further studies are warranted to elucidate the factors driving these findings.

A129

Impact of Same Day Sleeve Gastrectomy Surgery on Postoperative Emergency Department Visits: A Statewide Analysis from the Michigan Bariatric Surgery Collaborative

Oliver Varban *Detroit MI*[1], Sarah Petersen *Ann Arbor MI*[2], Tammy Kindel *Milwaukee WI*[3], Sabrena Noria *Columbus OH*[4], Michael Edwards *Ponte Vedra Beach FL*[5], Anthony Petrick *Danville PA*[6], Nabeel Obeid *Chelsea MI*[7], Jonathan Finks *Ann Arbor MI*[7], Dr. Arthur Carlin *Clinton Township MI*[1]

Henry Ford Hospital[1] University of Michigan[2] Medical College of Wisconsin[3] The Ohio State University[4] Mayo Clinic, Jacksonville[5] Geisinger Health System[6] Michigan Medicine[7]

Introduction:

Same day sleeve gastrectomy surgery (SDSG) is being performed in select patient populations with increased regularity. Despite a reported low incidence of complications, the impact on emergency department (ED) visits remains unclear.

Methods:

Using a state-wide bariatric specific data registry, all patients undergoing SDSG between 2020 and 2023 were identified (n=984). Rates of 30-day ED visits and complications were compared between SDSG and a 2:1 propensity matched cohort with a 1-2 day length of stay (n=1,968).

Results:

The mean age and body mass index of SDSG patients were 41.7 years and 45.9 kg/m^2, respectively. When compared to the matched cohort, SDSG patients had higher rates of ED visits (9.2% vs. 6.2%, p=0.0029) as well as a higher proportion of ED visits not requiring hospital readmission (87.8% vs. 71.1%, p<0.0037), despite experiencing similar overall complication rates (4.7% vs. 3.7 %, p=0.2087). The most common reason for an ED visit after SDSG was nausea (58.9% vs. 66.9%, p=0.2294), and the most common day to present was Friday (20.0% vs. 20.7%, p=0.9061), which was similar between groups. SDSG patients were more likely to present to the ED sooner (10.3 days vs 12.9 days, p=0.0118) and also had higher rates of reoperation (0.7% vs 0.2%, p=0.0137).

Conclusions:

SDSG patients had higher rates of ED visits despite similar overall complication rates as compared to matched non-SDSG patients. Programs interested in performing SDSG should consider protocols to mitigate the increased risk of unnecessary ED visits after surgery.

A227

Cost-effectiveness of Bariatric Surgery and Anti-Obesity Medications

Ira Leeds *New Haven CT*[1], Lee Ying *New Haven CT*[1], Grace Chao *New Haven CT*[1], Genevieve Gill-Wiehl *New Haven CT*[1], John Morton *MADISON CT*[2]
Yale[1] Yale School of Medicine[2]

Introduction

Prior to anti-obesity medications (AOMs), weight loss surgery (WLS) had demonstrated cost-effectiveness. The purpose of this study was to conduct a cost-effectiveness analysis comparing weight loss surgery versus AOMs with a long-term societal perspective.

Methods

Utilizing TreeAge Pro®, a decision tree was designed for a base case of a patient with body mass index > 40 utilizing long-term use of AOMs versus weight loss surgery (Figure 1). Strategies in the decision tree included escalating therapy from AOMs to WLS, surgical revision conversion if treatment response not met, use of adjuvant AOMs after weight loss surgery, and complications of weight loss surgery. Sensitivity testing was performed to identify a potential breakeven point. The model was informed by systematic review and expert opinion as needed. Future costs and quality of life years (QALYS) were by convention discounted at 3% per year and standardized to 2019 U.S. dollars.

Results

Weight loss surgery as initial therapy was the dominant strategy yielding 21.96 versus 20.58 QALYs for long-term AOMs alone at a cost of $301,374 versus $687,885, respectively. Drivers of inferiority for AOMs included the high continuing costs relative to the lower cost of weight loss surgery. On sensitivity analysis, no combination of more willingness to convert from medications to surgery, drug pricing, or medication adherence changed the dominance of an upfront surgery recommendation.

Discussion

Relative to AOMs, the low cost and durability of surgery argues it is the societally favorable option with better expected quality of life as well as lower total costs.

IH Top Oral Abstracts

Tuesday, June 11th, 2024
8:00 AM – 9:30 AM

A210

Leveraging Patient-Reported Outcome Measures (PROMs) to Understand How Food Insecurity Impacts Eating-related Behavior, Distress, and Symptoms in Patients with Obesity

Danny Mou *Brookhaven GA*[1], Savannah Smith *Atlanta GA*[1], Jamil Stetler *Atlanta GA*[1], Katherine Fay *Atlanta GA*[1], Elizabeth Hechenbleikner *Atlanta GA*[1], Scott Davis *Altanta GA*[1], Chelsea Yost *Atlanta GA*[1]
Emory University[1]

INTRODUCTION:
In patients with obesity, the relationship between food insecurity (FI) and eating-related (ER) experiences is poorly described. We explored this relationship with the Body-Q Eating Scales, which consists of three scales – ER behavior (eating habits, snacking frequency), ER distress (emotions after eating), and ER symptoms (nausea, vomiting, pain associated with eating).

METHODS:
All patients who presented to a major academic institution for evaluation for medical or surgical weight loss were given the Body-Q Eating Scales and the two-question FI screen. Body-Q Eating Scale scores were summed, and individual questions of each Body-Q domain were dichotomized between presence and absence of scale item. FI was dichotomized as presence or absence of FI over the prior 12 months. Pearson's correlation was used to evaluate the relationship between FI and Body-Q.

RESULTS:
Overall, 761 patients completed both Body-Q and FI with an 83% compliance rate. Twenty percent of the cohort reported FI. The baseline demographics of those with and without presence of FI did not significantly differ in age or BMI (Table). Those with FI had significantly worse ER symptoms ($p<0.001$) and ER distress ($p<0.001$), but not ER behavior (Figure).

CONCLUSIONS:
In patients being evaluated for obesity treatment, 20% suffer from FI, which is associated with worse ER symptoms and ER distress, but not worse ER behavior. These findings suggest that FI is an important screening tool to identify patients with high risk of poor eating-related symptoms and emotional distress. Pre-emptive diet-related interventions may be indicated for high-risk patients.

A176

Is physical activity associated with lower migraine risk in adults who are pursuing surgical or medical obesity treatment?

Devika Umashanker *Glastonbury CT*[1], Lauren Alvarez [1], Yin Wu [1], Tara McLaughlin *Hartford CT*[1], Connie Santana *Glastonbury CT*[1], Darren Tishler *Glastonbury CT*[1], Pavlos Papasavas *Hartford CT*[1], Allison Verhaak *West Hartford CT*[1], Brian Grosberg *West Hartford CT*[1], Dale Bond *Hartford CT*[1]
Hartford Healthcare[1]

Background.
Migraine is a neurological disease characterized by moderate-to-severe headaches and associated clinical features (e.g., nausea, light sensitivity). We previously showed that obesity increases risk for migraine and patients pursuing obesity treatment experience migraine at a rate that is 2-fold higher than that observed in the general population. Physical activity (PA) contributes to lower migraine risk, but it is unclear whether this association persists in the presence of obesity. This study evaluated whether PA relates to lower migraine risk among adults pursuing obesity treatment.

Methods.
Adult patients pursuing surgical (n=228)/medical (n=326) obesity treatment completed the: (1) ID-Migraine screener, which asks about whether headaches limit activities and are accompanied by nausea and light sensitivity; and (2) Physical Activity Vital Sign, that identifies which patients are active according to national MVPA guidelines (i.e. ≥150 MVPA minutes/week). Multivariate logistic regression assessed whether being active related to migraine risk, controlling for age, sex, race, and BMI.

Results.
Of 554 participants (84.7% Female; 46.8±13.3 years old; 40.6% Non-White race; BMI=40.1±8.4 kg/m^2), 152 (27.4%) screened positive for migraine. Participants reported 130.2±152.2 MVPA minutes/week and 203 (36.6%) were classified as active. Active participants were 41% less likely to have migraine versus those who were inactive (OR=0.59, 95% CI: 0.39, 0.90, *p*=.015).

Discussion.
Active participants were less likely to have migraine, suggesting that performing recommended levels of PA might confer protection against migraine risk even in the presence of obesity. Additional research should evaluate the importance of both PA and weight loss for improving migraine after obesity treatments.

A002

Physical Literacy and Motivation to Engage in Physical Activity after Bariatric Surgery

Deborah Pillarella *Munster IN*
The Community Healthcare System

Background*:*
Sustained weight loss and improved health after bariatric surgery require patients to adhere to healthy post-surgical lifestyles, including physical activity (PA). Physical literacy is a holistic, multifaceted concept fundamental to participation in lifelong PA. Physical literacy and its relationship to motivation for PA is currently void from bariatric patients pre-surgical journey.

Purpose*:*
This study explored a post-bariatric surgical patient population at two hospitals in Indiana. It assessed if there was a relationship between perceived physical literacy and motivation to engage in PA after bariatric surgery.

Method*:*
This quantitative, non-experimental single-stage survey study used a cross-sectional design. The population was a homogeneous, convenience, non-random sampling of post-bariatric surgical patients who completed email or postal mailed survey.

Results*:*
A total of 128 respondents were included in the final sample. Bivariate correlations revealed significant associations between PPLI Summary score ($r = .44$, $p < .001$), sub-scales of Knowledge and Understanding ($r = .57$, $p < .001$) and Sense of Self ($r = .35$, $p < .001$) with the Autonomous Motivation Index. Linear regression analysis showed that the model significantly predicted the Autonomous Motivation Index $F(2, 125) = 23.54$, $p < .001$, adjusted $R^2 = .31$. The Knowledge and Understanding score, which significantly contributed to the model ($p < .001$), increased by one unit and the Autonomous Motivation Index score increased by 1.37. No significant correlations were found between age, motivation, or perceived physical literacy ($p > .05$), suggesting perceived physical literacy (PPL) may contribute to motivating post-bariatric surgical patients' PA engagement.

A319

Evaluating Importance of Food Wanting and Liking in Relation to Number and Severity of Food Addiction Symptoms after Sleeve Gastrectomy

Dale Bond *Hartford CT*[1], Vaughn Steele [2], Yin Wu [3], Isabel Michalak *Hartford CT*[4], James Mitchell *Chaska MN*[5], Godfrey Pearlson *Hartford CT*[4], Michael Stevens *Hartford CT*[4], Darren Tishler *Glastonbury CT*[6], Pavlos Papasavas *Hartford CT*[3]

Hartford Hospital/HealthCare[1] Yale University[2] Hartford Hospital[3] Hartford HealthCare[4] North Dakota State University[5] Harford Hospital[6]

Background:

Research suggests addictive-like eating behaviors (e.g., diminished control over consumption) triggered by exposure to highly-processed foods are common among patients undergoing metabolic and bariatric surgery (MBS). Yet, little is known about changes in food addiction (FA) symptoms and relations with food wanting (motivation to consume food) and liking (pleasure from tasting food) after MBS.

Objective:

Evaluate pre- to 1-year postoperative changes in FA symptom count and severity after sleeve gastrectomy (SG); and associations of changes in food wanting/liking with changes in FA symptoms.

Methods:

Participants completed the: Yale Food Addiction Survey (YFAS) to determine FA symptom count (range=0-7) and severity (frequency/presence of addictive behaviors across all symptoms combined, score range=0-76); Power of Food Scale (PFS) to measure food wanting (higher scores=more food wanting); and Food Liking Survey Dietary Quality Index (higher scores=healthier food liking). Multiple linear regression assessed associations between changes in food wanting/liking and FA symptom count/severity, controlling for baseline demographics, depression severity, and FA symptoms.

Results:

Participants (n=57) on average reported decreases in FA symptom count (2.48±1.45 to 1.95±1.53, p=.019) and severity (19.0±9.43 to 14.90±10.73, p=.004) postoperatively. Decreases in PFS-total scores related to decreases in FA symptom count and severity (ßs=0.41-0.58, ps<.001). Increases in DQI scores were related to decreases in symptom count only (ß=0.21, p=.023).

Conclusion:

Decreased food wanting and increased liking of healthier foods were related to favorable FA symptom changes after SG. Future research should examine whether changes in FA symptoms and relationships with food wanting/liking are sustained beyond the immediate postoperative year.

A368

Impact of Socioeconomic Status on Dietary Intake, Physical Activity, and Weight Loss Outcomes Two Years After Metabolic and Bariatric Surgery

Jessica MacWilliams *Cleveland Heights OH*[1], Kristine Steffen *Moorhead MN*[2], Dale Bond *Hartford CT*[3], Ross Crosby *Fargo ND*[4], Leslie Heinberg *Cleveland OH*[5]
Cleveland Clinic Lerner College of Medicine[1] North Dakota State University[2] Hartford Hospital[3] Sanford Health and Uni. of North Dakota[4] Cleveland Clinic[5]

Background

Lower socioeconomic status (SES) is associated with reduced weight loss following metabolic and bariatric surgery (MBS), although factors driving differences have not been widely explored. This study aims to describe the impact of SES on post-surgical dietary intake and physical activity and to determine how these factors contribute to post-surgical outcomes.

Methods

Anthropometrics, 3-day validated 24-hour dietary recall, and 7-day actigraphy was collected prospectively at baseline, and at 12- and 24-months post-MBS in 124 patients. Self-reported income was used to categorize patients into low, middle, and high SES.

Results

Mean percent total weight loss (%TWL) at 24 months in low (26.5 ± 8.4%), middle (27.4 ± 9.6%), and high (27.4 ± 9.5%) SES groups did not differ ($p = 0.99$). Similarly, mean percent weight regained from nadir weight (%WR) at 24 months did not differ among low (15.0 ± 19.3%), middle (5.45 ± 12.95%), or high (13.1 ± 15.7%) SES groups ($p = 0.10$). Average daily kilo-caloric intake (kcal) and average daily minutes of MVPA averaged across all timepoints were not predictive of TWL% at 24 months for low [kcal: ($p = 0.69$); MVPA ($p = 0.50$)], middle [kcal: ($p = 0.81$); MVPA ($p = 0.93$)], or high [kcal: ($p = 0.36$); MVPA ($p = 0.76$)] SES.

Conclusion

All SES groups achieved similar %TWL and %WR at 24 months and kcal and MVPA did not differ by SES nor predict %TWL at 24 months suggesting good benefit across SES.

Top Videos

Tuesday, June 11th, 2024
1:30 PM- 3:00 PM

Reconstruction following pancreaticoduodenectomy after open roux en-y gastric bypass
Osama Shaheen *Fresno CA*[1], Pearl Ma *Fresno CA*[2], Amarita Klar *Fresno CA*[2], Keith Boone *Fresno CA*[2], Kelvin Higa *Fresno CA*[1] ALSA, CHP, Fresno, Ca[1] ALSA, CHP, Fresno, CA,[2]

Pancreatoduodenectomy is a complex procedure consisting of two main stages: the resection stage with or without pylorus preservation and the reconstruction stage. In a patient with a history of roux en-y gastric bypass (RYGB), selecting specific techniques for reconstruction after the Whipple procedure is a challenging decision and very important in decreasing morbidity and complication.
Here we are presenting a 68-year-old. female with h/o open RYGB in 2003 who was found to have a pancreatic head mass obstructing the biliary and pancreatic duct after a long history of pancreatitis and back pain and underwent a successful laparoscopic Whipple procedure.

The video illustrates the importance of identifying gastric bypass anatomy early during surgery. It demonstrates the key elements for reconstruction, including gastric remnant resection vs preservation, and considers pancreatic and biliary reconstruction based on the length of the remnant biliopancreatic limb.
In our case, the significant inflammation from chronic pancreatitis and the inability to preserve the pylorus were the main reasons to perform remnant gastrectomy and to avoid adding another anastomosis
In addition, the adequate length of the remnant biliopancreatic limb was appropriate to be used for both pancreatojejunostomy and hepaticojejunostomy

A286

Surgical management of Achalasia in Obese patients

Osama Shaheen *Fresno CA*[1], Pearl Ma *Fresno CA*[2], Amarita Klar *Fresno CA*[2], Keith Boone *Fresno CA*[2], Kelvin Higa *Fresno CA*[2]
ALSA, Fresno, Ca, CHP[1] ALSA, CHP, Fresno, CA[2]

This abstract presents a novel proposal for managing achalasia in patients with morbid obesity. Our patient is a 54-year-old female patient with a history of morbid obesity, metabolic syndrome including hypertension, hyperlipidemia, uncontrolled type 2 diabetes mellitus on insulin, and severe gastroesophageal reflux disease (GERD).

The patient presented with a nine-month history of progressive dysphagia, nausea, and vomiting. Additionally, she experienced a significant 60-pound weight loss over the past four months, with a current BMI of 45 kg/m2. Extensive workup, including esophagogastroduodenoscopy (EGD) and esophageal manometry with esophagogram, revealed a positive diagnosis of achalasia. Achalasia management with myotomy with endoscopic and surgical approaches is well described in the literature. However, in the presence of morbid obesity, the definitive treatment of both diseases is treated by Roux-en-Y gastric bypass (RYGB) and concurrent Heller myotomy (HM).

Given the technical complexities of performing laparoscopic HM and Roux-en-Y gastric bypass (RYGB) due to the small gastric pouch, we present an innovative approach in our video. In our presentation, an esophagojejunostomy with stapling through the lower esophageal sphincter is an alternative technique to a traditional myotomy. This technique addresses the challenges related to the limited space within the gastric pouch while ensuring an adequate myotomy length. During the video, we discuss the advantages, technical considerations, and implications of this proposed approach, offering a promising avenue for the surgical management of achalasia with morbid obesity.

A053

Laparoscopic Magnetic Gastro-Ileostomy Side-to-Side (MAGGI)

Michel Gagner *Westmount* [1], Lamees Almutlaq *Westmount* [1]
Westmount Square Surgical Center[1]

This video demonstrates compression anastomosis using linear magnets to achieve weight loss and remission of co-morbidities, and used as a revision strategy for weight regain after sleeve gastrectomy. Options may vary and may include Single Anastomosis Duodeno-Ileostomy (SADI), but recently side-to-side magnetic duodeno-ileostomy (MAGDI) has been described as an interim step, causing less malnutrition and provides access to the duodenum (duodenal bipartition). Another version of these bipartitions is the SASI or so called Single Anastomosis Sleeve-Ileostomy.
Several steps are shown in a recent laparoscopic Magnetic Gastro-Ileostomy (MAGGI).
A new longer linear magnet was delivered by gastroscopy using a flexible endoscopic catheter in the duodenum under sedation, and after 3 hours, radiological confirmation was obtained to establish a jejunum position (from peristalsis). At laparoscopy, a positioning device transported the endoluminal jejunal magnet to a point 250 cm proximal to the ileocecal valve. Posterior gastric adhesions were cleared in order to support a posterior anastomosis, behind old metal clips and previous stapled line. A second linear magnet was positioned by gastroscopy in the gastric antrum; the segments containing the magnets were apposed to initiate gradual incisionless compression. No enterotomies were necessary and avoided. Laparoscopic assistance was used to obtain accurate bowel measurements, divide adhesions, avoid tissue interposition, and close mesenteric defects. MAGGI can be used as a bipartition, bringing the ileal loop with the gastric antrum, it also permits duodenal access in case of biliary pathologies, and can be reversed with linear stapling if necessary.

A362

GASTRIC PERFORATION AFTER ENDOSCOPIC SLEEVE GASTROPLASTY

Amador Garcia Ruiz de Gordejue *Donostia* [1], Iñigo Augusto *San Sebastián* [1], Maria Iraola *San sebastian* [1], Itziar de Ariño *Donostia* [1], Lorena Arrabal [1], Laura Martí *San Sebastian* [1], Emma Eizaguirre [1] Hospital Universitario Donostia[1]

Introduction.

Endoscopic Sleeve Gastroplasty (ESG) is a new and promising endoscopic bariatric procedure. Even it is a minimally invasive procedure, it is not exempted of potential severe complications.

Case Report.

A 33 years old lady with no relevant past medical history with a BMI of 38kg/m^2 underwent a ESG in a private center. 18 hours after the procedure she consulted at the Emergency Room for severe abdominal pain and fever. Abdominal examination showed generalized tenderness. CT scan was requested and reported a gastric perforation.

Emergency laparoscopy was indicated and a generalized peritonitis with a perforation of the anterior wall of the stomach was found. Some of the stitches of the ESG were attached to the anterior abdominal wall and the perforation was found between those stitches. The stomach was desestructurated and a simple stitch or a conversion to Sleeve Gastrectomy were not considered safe procedures at that time. Patient was stable and a conversion into Roux-n-Y-Gastric bypass was indicated. The excluded stomach with the perforation was resected.

The patient had an uneventful postoperatory and was discharged on POD 7. She is doing well and 12 months after the procedure her BMI is 28kg/m^2 with good quality of life and no complications.

A028

Multimodal Therapy for Biliary Tract Disease in a Bypass Patient

Ann Rogers *Hershey PA*[1], McKell Quattrone *Hershey PA*[1], Eric Pauli *Hershey PA*[1], Victoria Rendell *Madison WI*[2] Penn State Health[1] University of Wisconsin Health[2]

Multimodal Therapy for Biliary Tract Disease in a Bypass Patient

Background:

The patient is a 70 year-old who underwent gastric bypass elsewhere in 2010. She came to our ED after a coughing fit that resulted in severe left upper abdominal wall pain. A CT scan showed a left rectus sheath hematoma. Additionally, she was found to have cholelithiasis and choledocholithiasis. As these were asymptomatic, she was sent home, and an outpatient GI consultation was scheduled.

GI Evaluation:

GI recognized that the patient had bypass anatomy. They discussed transremnant ERCP, double balloon enteroscopy and ERCP, as well as creation of a gastrogastric fistula with a self-expanding stent, followed by ERCP. As none of these options were considered optimal, she was referred for surgical evaluation.

Surgical Evaluation:

An outpatient biliary ultrasound and follow-up labs were obtained. The patient had an alkaline phosphatase of 250 but her other lab tests were normal. The ultrasound showed a 7mm common bile duct diameter, with no choledocholithiasis. Based on this, she was scheduled for cholecystectomy and IOC; if no stones were present, we would be done. Small common duct stones would be addressed by on-table transremnant ERCP. Larger stones would be removed via common bile duct exploration.

Treatment:

The patient underwent cholecystectomy. IOC showed large common duct stones. The four known stones were removed by CBDE, with assistance of flexible choledochoscopy and balloon catheter retrieval. Completion cholangiogram showed an additional stone. This was removed radiologically via PTC. The patient subsequently did well.

A106

Endoscopic Assisted Laparoscopy for Vertical Sleeve Gastric Stenosis

Rebecca Dirks *Greenwood IN*[1], Dana Portenier *Durham NC*[1], Kunoor Jain-Spangler *Durham NC*[1] Duke[1]

Background:

Due to prior popularity, Vertical banded gastroplasty anatomy is still encountered as well as its inherent complications of stomal stenosis, reflux, and regurgitation. Band removal may not suffice to relieve the obstruction. We describe a method of addressing such an obstruction using endoscopic guided trans gastric laparoscopy.

Case Presentation:

The patient is a 64-year-old female with history of open vertical banded gastroplasty approximately 30 years ago. She presented to bariatric clinic with both weight regain to BMI 40 and symptoms of reflux and post prandial emesis. Upper GI demonstrated no spontaneous or inducible gastroesophageal reflux, normal gastric emptying, and post-surgical changes of the stomach with hiatal hernia. There was also a narrow emptying of the proximal stomach. With medical weight loss, she had lost approximately 40 lbs and was a BMI of 32. However, given her GERD and emesis, a laparoscopic takedown of her VBG with possible conversion to RYGB was scheduled. Intraoperatively, extensive adhesions precluded safe laparoscopic gastric bypass. To address her symptoms, her band was removed. After band removal, upper endoscopy demonstrated no injury, but persistent small outlet of her proximal stomach. Using the endoscope to guide port placement and stapler position across the junction of the narrowed stomach and excluded stomach, a trans gastric gastro-gastrostomy was performed to widen the aperture of the proximal stomach. On post-operative follow-up, her reflux and emesis had resolved.

Conclusions:

Upper endoscopy and trans-gastric laparoscopy can facilitate minimally invasive correction of post vertical banded gastroplasty complications.

A143

Gastric Pericardial Fistula in a Bariatric Surgery Patient

Alison Lehane *Winston-Salem NC*[1], Olivia Fukui *Winston Salem NC*[1], Adolfo Fernandez [1]
Atrium Health Wake Forest Medical Center[1]

Introduction:

Bariatric surgery has positively affected the lives many by improving their overall health with weight loss. Unfortunately, there are complications to bariatric surgery including anastomotic leaks, bowel obstructions, hernias, and ulcers. We present a case report of a gastric-pericardial fistula in the setting of a marginal ulcer in a patient with prior roux-en-y gastric bypass.

Case Presentation:

The patient is a 71 year old female with a history of diabetes, hypertension, hypothyroidism and arthritis requiring many prior joint replacements, leaving the patient partially disabled requiring assistances with activities of daily living. In addition, she had a prior roux-en-y gastric bypass 5 years prior to presentation. She presented to an outside hospital with shortness of breath, cough, and chest pain for 3 days prior. A CTA revealed pneumopericardium and small pericardial effusion. VATS & EGD with cardiothoracic surgery revealed evidence of a gastric pericardial fistula. The bariatric surgery team was then consulted and discovered risk factors including smoking and NSAID use. An esophageal stent was placed by gastroenterology and her course was complicated by COVID pneumonia requiring ICU transfer and intubation. Once recovered, surgical intervention with bariatric surgery involved laparoscopic fistula takedown, gastrojejunostomy revision and G tube placement. She recovered well.

Conclusion:

Gastric-pericardial fistula is a rare complication of bariatric surgery with a high mortality rate amongst the few cases reported. Early detection and multidisciplinary teamwork is necessary for good patient outcomes. It is important to emphasize risk factors for ulcers to patients and the serious complications that can occur.

A310

Robot-Assisted Conversion of One Anastomosis Gastric Bypass to Roux-en-Y Gastric Bypass

Allison Frederick *Charleston SC*[1], Rana Pullatt *Charleston SC*[1], Arjun Patel *Johns Island SC*[1]
Medical University of South Carolina[1]

This video demonstrates the robotic conversion of a one anastomosis gastric bypass to a Roux-en-Y gastric bypass for severe bile reflux. This patient is a 53 year old female with a history of obesity, gastroesophageal reflux, hypertension and anxiety who had previously undergone a laparoscopic one anastomosis gastric bypass in 2003 for weight loss. Over the course of 20 years, she lost over 100 pounds but developed severe bile reflux and had several hospitalizations for marginal ulcers. At the time of surgery, she was only tolerating a liquid diet due to her regurgitation and reflux. The patient's preoperative workup included an EGD which showed bile reflux and a possible gastrogastric (GG) fistula and a CT which showed a GG fistula proximal to the GJ staple line. Given her severe bile reflux and malnutrition, she elected to undergo robotic assisted conversion to Roux-en-Y anatomy. This procedure is presented and described as shown in the attached video and the patient was found to have a gastrogastric fistula which was taken down as part of the excluded stomach. The patient's postoperative course was uneventful and she was discharged home on postoperative day two tolerating a bariatric diet. She was seen in the clinic several weeks later with complete resolution of her bile reflux.

Notable Papers and Videos

Wednesday, June 12th, 2024
8:00 AM – 9:30 AM

A443

First 1000 cases of Endoscopic Sleeve Gastroplasty in Asia

Manoel Galvao *Doral FL*[1], Mohit Bhandari *Indore* [2], Winni Mathur *Indore* [2], Andre Teixeria [3]
Florida International University College of Medicine[1] Mohak Bariatrics and Robotics[2] Orlando Health Weight Loss Institute[3]

Aim: This cohort study, conducted at a single academic centre in India, emphasizes long-term outcomes by monitoring weight loss and comorbidity improvement in the first 1000 patients undergoing ESG, with a minimum 5-year follow-up.

Methods: A total of 1000 patients, predominantly females (69%), with a mean age of 41.02 ± 12.8 years and a mean BMI of 34.42 ± 4.86 kg/m^2, underwent ESG. Follow-up rates at 1, 2, 3, 4, and 5 years were 90.6%, 77.7%, 70.2%, 67.8%, and 64.2%, respectively. Patients were systematically assessed for primary and secondary outcomes, including total weight loss (TWL) and excess weight loss (EWL).

Results: The mean %TWL at 1,2,3,4 and 5 years was 19.6%, 18.1%, 16.7%, 16.2%, and 16.02%, respectively. Corresponding %EWL were 56.5%, 54.5%, 50.7%, 48.9%, and 47.6%, indicating sustained weight loss. Immediate post-operative complications were primarily minor, with one case of SAE of Bleeding in one patient. No chronic complications or mortality were observed. The mean duration of surgery was 61.96 ± 2.1 min, and the hospital stay was three days, although 85.6% of patients were clinically fit for discharge on the same day, culturally preferring a 3-day stay. Significant improvements were observed in comorbidities, with 51% resolution of T2DM, 73% for HTN, 75% DLP, and 89% remission for OSA.

Conclusion: ESG demonstrates safety and efficacy for treating obesity, providing reliable long-term results for at least five years. Regular multidisciplinary monitoring enhances the quality of life with low perioperative complications. ESG should be considered a reliable option for obesity treatment.

A080

National trends in utilizing revisional surgeries post-LSG due to GERD and recurrent weight gain: A matched case-control analysis

Pourya Medhati *Boston MA*[1], Thomas Shin *Boston MA*[1], Vasundhara Mathur *Boston MA*[1], Abdelrahman Nimeri *Boston MA*[1], Eric Sheu *Boston MA*[1], Ali Tavakkoli *Boston MA*[1]
Brigham and Women's Hospital[1]

Introduction: Despite the popularity of laparoscopic sleeve gastrectomy (LSG) as an initial weight loss procedure, there are well-documented risks of recurrent weight gain (RWG) and gastroesophageal reflux disease (GERD), necessitating conversion to Roux-en-Y gastric bypass (RYGB), biliopancreatic diversion with duodenal switch (BPD), or single-anastomosis duodenoileal bypass (SADI).

Methods: Using the 2020-2022 MBSAQIP registry, we analyzed patients following LSG conversion to RYGB or SADI/BPD due to RWG or GERD. To identify the safest conversion option for patients with RWG, we performed 1:1 matching for demographics and preoperative comorbidities and compared their 30-day post-operative outcomes following conversion to RYGB and BPD/SADI.

Results: Overall, 13,765 and 11,381 patients underwent LSG conversion due to GERD and RWG, respectively. GERD-related revisions primarily included RYGB, while in RWG, 2,474 (21.7%) had SADI/BPD, while remaining underwent RYGB. Among individuals with RWG, matched SADI/BPD and RYGB groups (2,096 patients in each) demonstrated higher post-operative occurrence in RYGB (3.6% vs. 2.5%, p=.04). This increased risk among RYGB patients was mainly driven by intra-op/post-op blood transfusion (1.4% vs. 0.4%, p<.001) and superficial surgical site infection (1% vs. 0.2%, p=.003). Additionally, RYGB showed a higher rate of emergency room visits (11.4% vs. 7.4%, p<.001) and outpatient intravenous treatment (3.7% vs. 2.5%, p=.03) compared to SADI/BPD.

Conclusions: GERD and RWG are equally common indications for LSG conversion. In those with GERD, RYGB remains the primarily conversion option, but in those with RWG, BPD/SADI is utilized in over 20% of cases and appears to have an equal, if not better, 30-day safety profile.

A447

Long Term (> 15 Year) Outcomes Following Roux-en-Y Gastric Bypass

John Nguyen-Lee *Danville PA*[1], Michael Furey *Dallas PA*[1], Craig Wood *Danville PA*[1], Luis Pina *Danville PA*[1], Mark Mahan *Danville PA*[1], Ryan Horsley *Scranton PA*[1], Benefsha Mohammad *Danville PA*[1], Alexandra Falvo *Scranton PA*[1], Christopher Still *Danville PA*[1], Peter Benotti *Danville NY*[1], David Parker *Danville PA*[1], Vladan Obradovic *Manlius NY*[1], Anthony Petrick *Danville PA*[1] Geisinger Medical Center[1]

Introduction

Roux-en-Y gastric bypass (RYGB) is a well-established metabolic surgical procedure; however, long-term follow-up data is limited. The purpose of this study is to report long-term (>15 year) outcomes following RYGB.

Methods

A retrospective review of RYGB performed at a single COE from 2001-2008 was conducted. Primary outcomes were mean percent body weight loss (using repeated measures regression), percent with diabetes (compared between insulin and non-insulin using chi-square test), and Kaplan-Meier estimated death rates (compared by age and diabetes using Logrank tests).

Results

During the analysis period, there were 2045 patients that underwent RYGB. 10+ year follow-up was available for 68% of the patients (n=1388) and 48% had >15 years of follow-up (n=987). Preoperative mean age was 46 (18-72) and BMI (kg/m2) 47.9 (35-82.2). Maximum mean post-RYGB weight loss of 31.8% occurred at 18 months post-operatively. Mean weight loss stabilized at 23% at 10-20 years post-RYGB. Of the 677 patients with pre-operative diabetes, 10% were insulin-dependent post-RYGB diabetes remission rates were 54% at 3 years but decreased to 38% at 15 years. The rate of persistent diabetes post-RYGB was higher in pre-operative insulin-treated diabetes ($p<0.0001$). The overall 15-year death rate following RYGB was 13.3%, but was 37.4% in diabetics patients > 60 years. Time until death was shorter for older age ($p<0.0010$) and patients with pre-operative diabetes ($p<0.0001$).

Conclusion

Our study represents one of the largest studies of long-term follow data for patients undergoing RYGB. Our data demonstrates that RYGB is successful in sustained weight loss and diabetes remission.

A311

5-year results of SADI-S: 250 vs 300 cm common channel length. Retrospective comparison.

Andres Sanchez-Pernaute *Madrid* [1], María Eugenia Ossola Revilla *Madrid* [1], Miguel Ángel Rubio-Herrera *Madrid* [1], Amador García Ruiz de Gordejuela *Donostia* [2], Óscar González López *Barcelona* [3], María Elia Pérez Aguirre *Madrid* [1], Antonio Torres *Madrid. Spain* [1], Javier Osorio *L'Hospitalet de Llobregat, Barcelona* [4] Hospital Clínico San Carlos[1] Hospital Donosti[2] Clínica Diagonal[3] Hospital Universitario Bellvitge[4]

Introduction

A common channel length of 250 cm offers very good bariatric and metabolic results in SADI-S. The possibility of malnutrition makes many surgeons choose a more conservative but still effective 300 cm length.

Patients

235 patients with 5 years follow-up were included. Mean age was 47 years and mean BMI 47.2 kg/m2. 116 patients had diabetes. 48 patients had a previous bariatric operation. Limb length was 250 cm in 178 cases and 300 in 57.

Results

Patients submitted to SADI-S 250 had a significantly higher preoperative BMI (48 vs 45 kg/m2) and a higher diabetes prevalence (50 vs 45%, $p = 0.026$). At 5 years, TWL > 30% was achieved in 52% of the cases after SADI-S 300 and in 86% after 250. Remission of type-2 diabetes was higher for patients undergoing SADI-S 250, 64 vs 29%, $p = 0.01$, and levels of HbA1c were significantly lower, 5.51% vs 6.07%, $p = 0.01$. Patients submitted to SADI-S 250 had significantly lower levels of calcium and vitamin D, and higher levels of AST and ALT. There were no differences in the number of bowel movements. Nine patients were reoperated for malnutrition in the group of SADI-S 250 and 0 in the group of SADI-S 300 ($p = 0.08$).

Conclusions

SADI-S is a highly effective operation, either with a 250 cm common limb or with a 300 cm one. Weight loss results are better for patients with a shorter common limb, but the incidence of malnutrition is also higher.

A303

Resection of Esophageal Leiomyoma During Hiatal Hernia Repair and Roux-en-Y Gastric Bypass

Athena Bain *New Orleans LA*[1], Dylan Wolff *New Orleans LA*[1], Michelle Nessen *New Orleans LA*[1], John Baker *New Orleans LA*[1], Carlos Galvani *New Orleans LA*[1], Shauna Levy *New Orleans LA*[1]

Tulane University School of Medicine[1]

This is a video submission detailing the discovery of an esophageal leiomyoma incidentally found during a robotic hiatal hernia repair and Roux-en-Y gastric bypass. The mass is seen in the distal esophagus during mediastinal dissection. On intraoperative EGD, there was no intraluminal component. The mass was carefully dissected from the esophageal wall, and the defect was closed with interrupted silk sutures. This case highlights the importance of thorough intraoperative exploration and the subsequent management of an esophageal leiomyoma within the context of elective bariatric surgery.

A169

Gastric Sleeve Leak Revision

Frank Buchanan *Portland OR*[1], Andrea Stroud *Portland OR*[1], Stephanie Wood *Portland OR*[1], Sergio Toledo *Portland OR*[1], Tiffany Lee *Cincinnati OH*[1]
OHSU[1]

This is a video case report of a 53 year-old female with morbid obesity (BMI 41) who originally underwent robotic-assisted gastric band removal, splenectomy due to band erosion, sleeve gastrectomy, and hiatal hernia repair with mesh (June 2022 at an outside facility). The patient then presented a month after her index operation with abdominal pain and was found to have a gastric sleeve leak at the cardia in the area of the band removal, with associated abscess requiring percutaneous drainage. The leak was initially managed with antibiotics and distal feeding access; however, with persistent leak, the patient was transferred to our bariatric center. Other endoscopic therapies, including endovac and endoscopic sutures were attempted, but unsuccessful in closing the gastric defect. Therefore, she underwent robotic-assisted repair of her recurrent hiatal hernia with mesh excision, partial gastrectomy, and Roux-en-Y esophagojejunostomy. Intraoperatively, a large full thickness gastric defect was noted just distal to the gastroesophageal junction. This defect was associated with mesh erosion that extended into the gastroesophageal junction. Mediastinal dissection was performed with at least 3 cm of intra-abdominal esophageal mobilization. The proximal stomach resection included the gastroesophageal junction, and perfusion to the distal esophagus and remnant distal stomach was confirmed with indocyanine green fluoroscopy. Postoperatively, the esophagram demonstrated no leak, and the diet was advanced per bariatric pathway. Her BMI had decreased to 25 at the 6 month follow-up.

A218

Laparoscopic Omega Loop Roux-en-Y Gastric Bypass Complicated by Undiagnosed Congenital Intestinal Malrotation

Sharika Kaula *Maywood IL*[1], Tyler Cohn *Maywood IL*[1]
Loyola University Medical Center[1]

We present the case of a forty seven year old female with class two obesity (body mass index 37), type two diabetes, and gastroesophageal reflux who was found to have congenital intestinal malrotation at the time of a laparoscopic omega loop Roux-en-Y gastric bypass (RYGB). Following creation of the gastric pouch, the ligament of Treitz was not identified in the typical anatomic location. Further abdominal exploration confirmed the diagnosis of congenital intestinal malrotation. A laparoscopic Ladd's procedure was then performed in order to prevent future gastrointestinal obstruction and permit completion of the RYGB. After finishing the Ladd's procedure, we proceeded with the gastrointestinal reconstruction in a Roux-en-Y fashion. We contrast how the abnormal anatomy in the setting of congenital malrotation (with the jejunum originating in the right upper quadrant) affects gastrointestinal reconstruction when compared to a typical omega loop RYGB. Our patient was discharged on post operative day 2 and did not experience any postoperative complications. At her six month follow up visit she demonstrated a 55 pound weight loss (41.3% total body weight loss, 23.5% excess body weight loss) with resolution of her type two diabetes.

A232

Endoscopic Kissing Stents and Endoseton for the Management of Gastric Outlet Obstruction After Vertical Banded Gastroplasty

Oscar Olavarria *HOUSTON TX*[1], Erik Wilson *Houston TX*[1]
UTHouston[1]

Patient is a 75-year-old female with past medical history of gastroesophageal reflux disease and obesity, with a remote history of a vertical banded gastroplasty (VBG) with Marlex mesh complicated with worsening reflux and symptomatic gastric outlet obstruction at the level of the band. Attempt was made to erode the Marlex mesh with an endoscopic stent, yet this was unsuccessful likely due to the fact that the Marlex mesh is too pliable. Upper gastrointestinal series revealed esophageal dilation and delayed passage of contrast at the level of the band. Esophagogastroduodenoscopy revealed severe esophagitis, mid gastric body stricture from the band, and retained food and bile in the upper gastric pouch. Additionally, she had a small gastrogastric fistula through the previous VBG staple line. Two kissing stents were placed: an Axios stent was placed through the gastrogastric fistula to widen it, and an EndoMax stent was placed across the gastric outlet. The rationale of this was to apply more radial pressure on the gastric septum to allow for erosion of the Marlex mesh, however, the mesh still not eroded. We then decided to place a vessel loop around the gastric septum to function as a cutting seton (Endoseton) by creating further ischemia of tissue and allowing further mesh erosion. This video describes the steps for placement of the vessel loop around the gastric septum. As a result of this procedure the gastric outlet was widened, the mesh was able to be eroded, subsequently cut with a Soehendra lithotripter and removed with forceps.

A258

Roux-en-O creation during robotic 2nd stage Roux-en-Y gastric bypass after open AGB removal: how to prevent it and correct it

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2], Yeisson Rivero *BROOKLYN NY*[1], Samantha Redden-Chirinos *Houston TX*[3], Victor Bolivar *Houston TX*[4], Omar Gaytan Fuentes *Mexico City MEX*[5], Seiichi Kitahama *Osaka* [6], Beniamino Pascotto *Luxembourg* [7], Pierre Blanc *Saint etienne* [8] Nacogdoches Medical Center[1] CHU Orleans[2] Baylor College of Medicine[3] University of Texas[4] UNAM[5] Chibune General Hospital[6] Centre Hospitalier de Luxembourg[7] Centre Mutualiste de Saint-Etienne[8]

Adjustable gastric band (AGB) may lead to several long-term complications that may require conversion to Roux-en-Y gastric bypass (RYGB) as a single stage or as a 2nd stage procedure. We present the case of a 47 y/o female with BMI of 56 and a prior laparoscopic ABG that led to slippage and dysphagia requiring an open removal of the band by another surgeon. This led to an anterior abdominal wall hernia and a hiatal hernia. The patient was evaluated by a multidisciplinary panel of experts who considered her an appropriate candidate for a robotic 2nd stage RYGB.

The 2nd stage RYGB was performed with the robotic platform after extensive laparoscopic adhesiolysis. The hiatal hernia repair was done primarily. However, during creation of the gastrojejunostomy (GJ) with the omega loop technique, a simple maneuver that allowed for twisting of the loop configuration represented a significant technical error that led to the complication of a Roux-en-O creation.

This complication was detected intraoperatively at the time of running what was presumed to be the Roux limb after creation of the GJ anastomosis. Once it was obvious that the mislabeled Roux limb was the biliopancreatic (BP) limb in reality, and vice versa, both jejunal limbs were marked with stitches. The GJ was resected and redone after arranging the actual Roux limb and BP limb in the proper configuration without any doubt.

The rest of the procedure went on without any issues, and the same was true of the postoperative course and 1-year follow up.

Selected Papers and Videos

Wednesday, June 12th, 2024
1:30 PM – 3:00 PM

A024

Proximalization of a Duodenal Switch to Treat Malnutrition

Karl Hage *Rochester MN*[1], Omar Ghanem *Rochester MN*[1], Benjamin Clapp *El Paso TX*[2]
Mayo Clinic Rochester[1] Texas Tech University El Paso[2]

We describe the case of a 39-year-old female patient with a history of biliopancreatic diversion with duodenal switch performed in 2021. The patient presented with significant signs of malnutrition and a weight of 132 lbs. She was placed on TPN and optimized prior to proceeding with revisional surgery to manage the malnutrition. We started the procedure by accurately measuring the bowel lengths. We identified a common channel (CC) of 260 cm, a very short roux limb (RL) of 35 cm, and a biliopancreatic limb (BP) of 265 cm. We transected the RL from the ileo-ileostomy and reanastomosed the RL proximally on the BP limb, thus adding an additional 130 cm to the CC and elongating the total alimentary limb length. This was a linear stapled side-to-side anastomosis with staple closure of the common enterotomy. The patient did really well after the surgery. She was discharged on postoperative day 1. At her 4 weeks follow-up, she already started regaining weight and her number of bowel movements per day decreased significantly.

A138

Enhancing Glycemic Regulation in Type 2 Diabetes through Endoscopic Pulsed Electric Field Therapy: Insights from an International Multicenter Study

Barham Abu Dayyeh *Rochester MN*[1], Adrian Sartoretto *Double Bay* [2], Andrew Storm *Rochester MN*[1], Howard McCollister *Crosby MN*[3], Paul Severson *Crosby MN*[3], Bronte Holt *Melbourne* [4], Georgina Cameron *Fitzroy* [5], Rhys Vaughan *Heidelberg* [6], Elif Ekinci *3084* [6], John Lipham *Los Angeles CA*[7], David O'Neal *Fitzroy* [4]

Mayo Clinic, Rochester[1] BMI Clinic, Double Bay, Australia[2] Cuyuna Regional Medical Center, MN[3] University of Melbourne, Australia[4] St Vincent's Hospital, Melbourne, Aust.[5] Austin Health, Victoria, Australia[6] University of Southern California, USA[7]

Background: Type II Diabetes (T2D) pathogenesis is linked to specific duodenal alterations, offering a target for regenerative therapy. The novel Re-Cellularization via Electroporation Therapy (ReCET™) leverages non-thermal pulsed electric fields (PEF) to stimulate intestinal cell regeneration (Figure 1). We synthesize findings from two similar prospective cohort studies.

Methods: Participants aged 18-70 years, with a BMI of 24-40 kg/m2, HbA1c between 7.5%-11.0%, and on 1-4 antidiabetic drugs, were enrolled from 6 centers in Australia and the US. The intervention involved endoscopic application of PEF to the duodenum. Medication regimens remained stable. The primary endpoint was device/procedure-related serious adverse events (SAEs) at 12 weeks. Secondary endpoints included glycemic changes and weight loss.

Results: Seventy-one patients (mean age 53.6 years, 75% male, average BMI 31.7 kg/m2, average T2D duration 5.8 years, baseline HbA1c 8.6%) were treated with two generations of catheters (Gen 1, Gen 2). Gen 2 showed superior duodenal coverage. All procedures were successful, with no device/procedure-related SAEs, and complete mucosal healing at 4 weeks (Figure 1). Gen 2 significantly improved glycemic control, with a mean HbA1c reduction of -1.7%, and weight loss of 7.1% at 24 weeks. HbA1c reduction was doubled and CGM time in range increased by 42% from 23% with the Gen 2 vs. Gen 1 device. Multivariate analysis identified catheter generation as the only significant predictor of HbA1c improvement.

Conclusions: ReCET™, especially with Gen 2 catheter, markedly enhances glycemic control in T2D without serious adverse events, suggesting its potential in improving diabetes management and altering disease course.

A058

Control of Splenic Hilar Bleeding During Revisional Sleeve Gastrectomy to Roux-en-Y Gastric Bypass

Oscar Olavarria *HOUSTON TX*[1], Erik Wilson *Houston TX*[1]
UTHouston[1]

Patient is a 52-year-old female with a history of hyperlipidemia, gastroesophageal reflux disease, and morbid obesity, who had previously undergone a laparoscopic sleeve gastrectomy who presented to our clinic with weight regain (body mass index of 42) and worsening reflux symptoms. Pre-operative esophagogastroduodenoscopy revealed narrowing at the incisura with proximal gastric dilation, a hiatal hernia, and evidence of bile reflux. The patient was taken to the operating room for a robotic assisted laparoscopic conversion of sleeve gastrectomy to Roux-en-Y gastric bypass. Unfortunately, during the operation, a splenic hilar vessel was injured causing significant blood loss. This video demonstrates a minimally invasive approach for the management of splenic hilar bleeding which included perisplenic packing and suture ligation of hilar vessel with robotic assistance. The patient had an uneventful recovery, did not require conversion to open or transfusion of blood products, and was discharged on postoperative day 2. The patient was last seen at 30 months post-op and was doing well.

A105

Long-Term Recurrence of Hypertension and Dyslipidemia after Roux-en-Y Gastric Bypass (RYGB) is Dependent on Race/Ethnicity: Trends Using a New Objective Metabolic Scoring System

Tiffany Wong *Sacramento CA*[1], Annie Wang *Sacramento CA*[1], John Lew *SACRAMENTO CA*[1], Hazem Shamseddeen *Sacramento CA*[1], Mohamed Ali *Sacramento CA*[1], Shushmita Ahmed *Sacramento CA*[1], Victoria Lyo *Sacramento CA*[1]
University of California Davis[1]

Background:
The impact of race and socioeconomic characteristics on metabolic recovery following RYGB is incompletely understood. We assessed how race/ethnicity and insurance type influenced metabolic response to RYGB.

Methods:
We developed an objective scoring system, the Assessment of Obesity-related Metabolic Comorbidities (AOMC), to accurately assess the severity of metabolic diseases by combining treatment and biochemical data to assign a severity score on a 6-point scale. AOMC scores were calculated for diabetes (DM), hypertension (HTN), and dyslipidemia (DYS) pre- and post-operatively (1-, 2-, and 5-years) in patients who underwent RYGB from 2012-2016 at our academic institution. AOMC trends were tested with Wilcoxon signed-rank test (pairwise) and the Jonckheere-Terpstra test (>2 groups).

Results:
Of 351 patients, 57% identified as non-Hispanic White, 13% Black, and 16% Hispanic. Race/ethnicity was significantly associated with private versus public insurance type or uninsured status (**Table**, $p<0.05$). Preoperative DM ($p=0.25$), HTN ($p=0.38$), or DYS ($p=0.38$) AOMC scores did not differ among racial/ethnic groups. Despite an equal degree of improvement of all scores at 1- and 2-years postoperatively in all groups, at 5 years, some scores returned to baseline in Black patients (HTN and DYS) and Hispanic patients (DYS) (**Figure**).

Conclusions:
Racial/ethnic discrepancies in long-term durability of metabolic improvement exist and differ by disease. Variability in insurance type between groups may relate to treatment access and consequent metabolic disease control. Such data can enhance patient education regarding the expectations for metabolic recovery following RYGB and signal the importance of adjuvant treatments to surgery in high-risk racial/ethnic groups.

Is it a Leak? An Unexpected Cause of Postoperative Fever and Tachycardia after Esophagojejunostomy for Mid-Pouch Stenosis

Jack Sample *Rochester MN*[1], Karl Hage *Rochester MN*[1], Noura Jawhar *Rochester MN*[1], Kamal Abi Mosleh *Rochester MN*[1], Abu Dayyeh [1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic Rochester[1]

Introduction: Conversion to a Roux-en-Y esophagojejunostomy (RYEJ) is a recognized treatment option for specific complications following Roux-en-Y gastric bypass (RYGB). Esophagojejunostomy leak is a feared and potentially devastating complication, often initially presenting with fever and tachycardia. We present an unexpected case of postoperative fever and tachycardia following esophagojejunostomy revisional surgery for gastric pouch stenosis.

Methods: A 63-year-old male with history of RYGB and truncal vagotomy four years prior presented to our bariatric surgery practice with chief complaint of progressive dysphagia over two years. His symptoms had progressed to liquid intolerance with severe vomiting and weight loss despite serial endoscopic dilatation. Upper gastrointestinal studies confirmed pouch stenosis and conservative management with Axios stent placement initially showed symptomatic improvement and weight regain. However, after stent removal, the patient experienced rapid recurrence of symptoms. A laparoscopic RYEJ was performed, and the patient was discharged after an uneventful postoperative recovery. On the eleventh postoperative day, the patient presented to the emergency department with fever, tachycardia, and leukocytosis concerning for leak.

Results: Computed tomography showed no evidence of leak but instead suggested acute gangrenous cholecystitis. Considering the timeframe from recent surgery, a nonoperative approach with antibiotics and biliary decompression was favored. The patient underwent successful percutaneous cholecystomy tube placement and interval laparoscopic cholecystectomy at three months. The patient has since progressed well, gaining 14kg since RYEJ revision.

Conclusion: Cholecystitis is an unexpected cause of postoperative fever and tachycardia following EJ. Conservative management involving antibiotics and biliary decompression can be performed with interval cholecystectomy.

A011

Postoperative mortality following metabolic and bariatric surgery for obesity in individuals with Prader-Willi Syndrome

Stephan Myers *Sinking Spring PA*[1], Gunnar Wolfe *Corona CA*[2], Aaron Hechtman *Wyomissing PA*[3], Robert Dillard [3], Renee Riddle *Wyomissing PA*[3], Vesta Salehi *philadelphia PA*[4], John Fam *Wyomissing PA*[3]

St. Chrristopher's Hospital for Children[1] University of California, Riverside[2] Tower Health[3] St. Christopher's Hospital for Children[4]

Background*:*

The risk of postoperative mortality after metabolic and bariatric surgery (MBS) is often considered to be too high for individuals with Prader-Willi Syndrome (PWS)

Objectives*:*

Determine the rate of postoperative mortality following initial MBS for the treatment of obesity in PWS.

Methods*:*

A systematic review of articles in the English language of MBS in PWS was performed using PubMed, Embase and Cochrane Central identifying 254 citations extending from 1974 to July 2022. Twenty-eight articles in the English language were identified that reported on a total of 103 patients having a primary MBS operation.

Results*:*

There were 3 deaths reported within 12 months following 103 MBS operations performed for obesity on PWS individuals for a postoperative mortality rate of 2.9%. Two reported in 1985 following a jejunoileal bypass which is no longer performed, and one reported in 1996 following a gastric band placement. There has been no postoperative mortality recorded in the 71 individuals with PWS that had MBS since 1996. No postoperative mortality was reported any of the individuals with PWS (87) that had a primary laparoscopic gastric sleeve (n=34), gastric bypass (n=23) or biliopancreatic diversion with or without duodenal switch (n=30).

Conclusion*:*

There has been no postoperative mortality reported in a primary laparoscopic gastric sleeve, gastric bypass or biliopancreatic bypass with or without a duodenal switch. Therefore, individuals with PWS who suffer from severe obesity should not be excluded from being evaluated for MBS.

A491

Laparoscopic Roux-en-Y-Fistulo-jejunostomy as a salvage procedure in unstable patient with Nissen-Sleeve gastrectomy fistula

Robert CAIAZZO *Lille* [1], Mathilde GOBERT [1], Camille MARCINIAK [1], Gregory BAUD *France* [1], Francois Pattou [1]
Lille University Hospital[1]

We present a laparoscopic Roux-en-Y- fistulojejunostomy for the treatment of an esophageal perforation after Nissen sleeve gastrectomy

This 37-year-old patient suffering from obesity and gastro esophageal reflux disease (GERD) underwent a Nissen sleeve gastrectomy. Several episodes of vomiting occurred post-operatively. At 8 days post-op, she developed sepsis, leading to the discovery of an esophageal fistula. Conservative treatment was first initiated, including antiobiotherapy, parenteral nutrition, and endoscopic treatment. The evolution at 21 days post-op was unfavorable with the occurrence of multivisceral deficiency and a peri splenic absess.
Emergency surgical management was then decided.

Laparoscopic exploration enabled the fistula to be identified, with the aid of the pig-tail tract. Intraoperative endoscopy was performed to remove the esophageal prosthesis and visualize the location and limits of the fistula.

We decided to perform a fistulojejunostomy as “damage control surgery” because we chosed the quickest and least invasive procedure.

The complete dissection of the oesophageal would have been complex, and would have necessitated a conversion to laparotomy, a gastrectomy and oesojejunal anastomosis with a high risk of secondary fistula.

Postoperative follow-up was simple.
Roux-en-Y-fistulo-jejunostomy is a procedure that has proved its effectiveness for chronic sleeve fistulas. We show here that it can also be used in acute fistula in the context of salvage surgery.

A321

A Comparative Analysis of Roux-En-Y Gastric Bypass and Sleeve Gastrectomy for Diabetes Remission in Patients with Diabetes-Related Complications: A Multi-centered Study

Wissam Ghusn *Boston MA*[1], Kayla Ikemiya *Fresno CA*[2], Marita Salame [1], Karl Hage *Rochester MN*[1], Barham Abu Dayyeh *Rochester MN*[1], Pearl Ma *Fresno CA*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic[1] UCSF[2]

Introduction: Obesity is associated with type-2 diabetes (T2D), which can lead to both microvascular and macrovascular complications. Roux-en-Y Gastric Bypass (RYGB) and Sleeve Gastrectomy (SG) are effective interventions in achieving diabetes remission (DR). However, it remains unclear whether RYGB or SG is more beneficial for patients with or without diabetes-related complications. Hence, we aim to compare the long-term effectiveness of bariatric surgeries in achieving DR in individuals with diabetes-related complications.

Methods: This is a multicenter retrospective cohort study in patients with T2D who underwent bariatric surgery. We systematically collected data pertaining to preoperative diabetes-related conditions, encompassing microvascular (retinopathy, nephropathy, and neuropathy) and macrovascular comorbidities (coronary artery disease, cerebrovascular accidents, and peripheral artery disease). Our endpoint was comparing the efficacy of RYGB and SG in achieving DR in patients with and without diabetes-related complications.

Results: A total of 1177 patients (67%female, 92%White) were included in this study with a mean follow-up of 5.5 years. Baseline BMI was the only baseline parameter that was different between RYGB and SG (**Table1**). In patients with diabetes-related complications, patients who underwent RYGB had an OR of 1.98 (95%CI 1.2 to 3.2) to achieve DR compared to SG (40% vs 25%; $p<0.01$, respectively). In patients without complications, there was no statistical difference in DR when comparing RYGB to SG (56% vs 51%; $p=0.34$). Subgroup analysis by microvascular and macrovascular complications is presented in **Figure1**.

Conclusion: Among patients with diabetes-related complications, particularly microvascular diseases, RYGB was associated with a significantly higher rate of DR compared to SG.

A444

Management of Laparoscopic Powered Linear Stapler Malfunction During Sleeve Gastrectomy with Hiatal Hernia Repair

Cristina Perez Viso *Houston TX*[1], Marina Petsalis *Houston TX*[1], Melissa Felinski *Houston TX*[1], Kulvinder Bajwa *Houston TX*[1]
The University of Texas- Houston[1]

Patient is a 33-year-old female with a history of morbid obesity, BMI: 45 kg/m² and gastroesophageal reflux disease. She presented to our clinic with typical reflux symptoms and was interested in weight loss surgery. Pre-operative esophagogastroduodenoscopy revealed a hiatal hernia of 2.5 cm in width and 3 cm of axial displacement and a non-obstructing Schatzki's ring. After discussion of surgical options patient elected to undergo laparoscopic sleeve gastrectomy with hiatal hernia repair.

During the procedure the powered linear stapler used to create the sleeve gastrectomy had a critical stop at 50% at the time of firing. It was manually retracted back to starting point and manually opened. The stapler incision had to be enlarged. This video demonstrates the management of this complication with manual removal of the stapler and completion of the sleeve gastrectomy using a variable height linear stapler with staple line reinforcement. The patient had an uneventful recovery, was discharged home on postoperative day 2 and was last seen 4 months post-op doing well.

Significant Papers and Videos

Wednesday, June 12th, 2024
3:45 PM- 5:15 PM

A163

Management of Early Recurrent Hiatal Hernia After Sleeve Gastrectomy and Hiatal Hernia Repair

Michelle Nessen *New Orleans LA*[1], Shauna Levy *New Orleans LA*[1], John Baker *New Orleans LA*[1], Abdallah Attia *New Orleans LA*[2]
Tulane University[1] Tulane Univeristy[2]

We are presenting a case of early re-herniation of the upper portion of a sleeve gastrectomy in the early post-operative period. Our patient is a 37-year-old female with history of obesity (BMI 38.3) and multiple prior surgeries including umbilical hernia repair with intraperitoneal mesh and abdominoplasty. Pre-operative EGD demonstrated a hiatal hernia and no evidence of esophagitis. Given dense adhesions, intra-operative decision was made to proceed with a robotic sleeve gastrectomy with hiatal hernia repair. She initially tolerated PO following surgery, but experienced an episode of forceful emesis POD0 with subsequent intolerance of sips of water. Initial workup was concerning for too tight of a hernia repair, for which she underwent EGD with dilation. Shortly after, she had recurrent symptoms of PO intolerance and a CT demonstrated herniation of her sleeve into the chest. She was brought back to the OR on POD4 for revision of the hiatal hernia repair, reduction of the stomach, and omentopexy. The stomach appeared viable at the portion that had been incarcerated. Slight angulation at the incisura was noted on EGD which was corrected with omentopexy at the distal staple line. Immediately following surgery she was able to tolerate PO and was discharged home post-operative day 2.

A076

Use of Pre-operative Glucagon-Like Peptide 1 Agonists and Impact on Weight Loss Following Bariatric Surgery

Russell Herberg *LA CROSSE WI*[1], Joshua Pfeiffer *La Crosse WI*[1], Brandon Grover *La Crosse WI*[1]

Gundersen Health System[1]

GLP-1 agonists (GLP1s) are an effective tool for weight loss both by themselves and in combination with bariatric surgery. Recent research supports their use in combination with metabolic surgery to maximize weight loss, particularly when used in the post-operative setting (1). Some insurance companies require a trial of GLP1s before approving bariatric surgery as studies suggest certain patients decide to forego surgery when desired weight loss is achieved with pre-operative medication alone (2). We hypothesized preoperative and/or postoperative use of GLP1s would show improved weight loss in our patients. A retrospective analysis of 1335 patients from Gundersen Health System who underwent bariatric surgery between 2013 and 2022 was performed to evaluate the effect preoperative and postoperative use of GLP1s had on post-operative weight loss. Patient demographics and surgery type were compared between those who received GLP1s and those who did not. 8.1% of patients received GLP1s before surgery and 6.6% of patients received GLP1s after surgery. Patients who received pre-operative GLP1s had no significant difference in post-operative weight loss when compared with those that did not receive preoperative GLP1s. Patients who received post-op GLP1s following surgery showed significantly less %EWL than those that did not receive this treatment. Preoperative use of GLP1s was not associated with any difference in weight loss following bariatric surgery. Use of GLP1s after surgery was associated with poorer weight loss. Further research is needed to optimize the use of these medications in combination with bariatric surgery. Insurance mandated use prior to bariatric surgery is inappropriate.

A089

Robotic Gastro-Pleural Fistula Takedown with Roux-en-Y Reconstruction

Luke Crawford *Houston TX*[1], Francisco Guerra *TULSA OK*[1], Erik Wilson *Houston TX*[1], Kulvinder Bajwa *Houston TX*[1]
University of Texas at Houston[1]

Patient is a 39 year old female with a past surgical history of a sleeve gastrectomy performed three and a half years ago in Mexico. This operation was complicated by a gastric perforation at the cardia. She presented to our clinic with left-sided chest pain, recurrent cough and occasional hemoptysis. A computed tomography of the abdomen and pelvis and an upper gastrointestinal series were performed, revealing a gastro-pleural fistula. The patient subsequently was taken to the operating room for a robotic assisted laparoscopic gastro-pleural fistula takedown with Roux-en-Y reconstruction. This video demonstrates the surgical steps of a gastro-pleural fistula takedown and Roux-en-Y reconstruction. A two layered hand-sewn gastrojejunostomy and incorporated jejunal serosal patch of the gastric defect from the fistula was performed. The patient had an uneventful course and was discharged on post-operative day two. Five months post-op the patient has no known complications or hospital readmissions.

A171

Gut microbiota's shift 1 year after laparoscopic Roux-en-Y vs One Anastomosis Gastric Bypass

Gianfranco Silecchia *Rome* [1], Cristian Boru *Rome* [2]
UNIVERSITY LA SAPIENZA OF ROME[1] University "La Sapienza" of Rome, Italy[2]

Background: Roux-en-Y gastric bypass (RYGB) and one anastomosis gastric bypass (OAGB) represent two of the most used laparoscopic bariatric/metabolic procedures (BMS). The metabolic and physiological consequences shape the short- and long-term outcomes of bypass surgeries, and the variations in the gut microbiota (GM) composition, currently understated, may be a possible key driver.

Subjects and Methods: prospective, cohort, multicenter study enrolling patients with severe obesity, randomized between OAGB or RYGB. Fecal and blood samples were collected, pre- (T0) and 12 months postoperatively (T1).

Objects: To evaluate and compare OAGB *vs* RYGB microbiota profile shift at 1 year and its impact on metabolic and nutritional status.

Results: An overall significant variation was detected in anthropometric and serum nutritional parameters at 1 year, and no differences were found in total weight loss (TWL) and body mass index (BMI) among the two groups. Whereas GM composition at 1 year showed a significant decrease in overall microbial diversity, with an increase in relative abundances of Actinobacteria and Proteobacteria and a reduction of Bacteroidetes, while no significant changes were observed in Firmicutes and Verrucomicrobia. Yet, we observed an increase of the Firmicutes/Bacteroidetes (F/B) ratio following bariatric surgery, related to the surgical procedure.

Conclusions: BMS promotes a dramatic change in GM composition one year postoperatively. This is the first RCT evaluating the impact of omega vs Roux-Y bypass on GM profile. The bypass technique per se did not impact differently on GM, with similar effect on weight loss and comorbidities resolution/improvement.

A096

Robotic Sleeve Gastrectomy to Gastric Bypass in a Case of Situs Inversus: A Case Report

Naofal da SIlva *Miami FL*[1], Jonathan Chino *Miami FL*[1], Shohab Virk *Miami FL*[1], Michelle Gallas *Coral Gables FL*[1], Anthony Gonzalez *Miami FL*[1]
Baptist Hospital of Miami[1]

Disclosures:
None

Background: Bariatric surgery is becoming increasingly commonplace in treating morbid obesity and its associated co-morbidities, with over 260,000 cases performed annually according to the ASMBS. Not infrequently, these procedures are performed on patients with unique conditions requiring a thorough workup. Situs inversus totalis (SIT) represents a rare anatomical deviation (0.01% prevalence) with thoracic and abdominal viscera being in mirror-image positions from normal anatomy. The rarity of this condition underscores the need for this report, as understanding the preoperative work up and unique technical challenges will help surgeons better prepare for such cases.

Methods: A case study is presented of a 54-year-old female with morbid obesity, BMI of 49, Obstructive Sleep Apnea, cardiac arrythmias (with AICD implantation), and known Situs inversus totalis. She presented to our office with complaints of regurgitation and weight regain 7 years after having a sleeve gastrectomy at another facility.

Results: After appropriate preoperative work up, she was offered a conversion to gastric bypass. A video of a robotic gastric sleeve to gastric bypass conversion is presented. At her 1-month follow up visit, she was doing well with a BMI of 47, tolerating her diet and compliant on medications and vitamins.

Conclusions: We conclude that bariatric surgery is safe in patients with situs inversus provided that all preoperative workup is done, and necessary anatomical precautions are taken during the procedure.

Keywords: bariatric surgery, gastric bypass, situs inversus, gastric sleeve, morbid obesity.

A479

Extensive weight loss prior to bariatric surgery is associated with worse outcomes

Michaela Simoncini *Providence RI*[1], Marcoandrea Giorgi [1], Andrew Luhrs *Cranston RI*[1]
Brown University[1]

Introduction:
Limited weight loss has been shown to favorably affect obesity-related comorbid disease and prior studies have shown that a 10% preoperative weight loss is associated with fewer complications after gastric bypass surgery. Although the optimal preoperative preparation for bariatric surgery is not standardized, prerequisite weight loss prior to bariatric surgical procedures is often mandated, typically around 10%, and may include very low or low-calorie preoperative diet.

Methods:
To determine optimal weight loss prior to bariatric surgery, we compared patients who lost over 10% of their highest weight prior to surgery to patients who did not in MBSAQIP database from 2015-2021 which included over 1.5 million patients.

Results:
Patients who lost more than 10% of highest preoperative weight were more likely to experience complications including death (0.17% vs 0.1%, p<.001), reoperation (2.04% vs 1.43%, p=.001), readmission (4.7% vs 3.85%, p=.001), bleeding (1.07% vs 0.74%, p=.001), emergency department visits (7.2% vs 6.58%, p=.001), and dehydration (3.64% vs 3.44%, p=.001). These differences remained significant with multivariate regression analysis controlling for multiple patient factors and comorbidites.

Conclusion:
While preoperative weight loss prior to bariatric surgery may be beneficial, over 10% weight loss may be associated with worse outcomes and should be avoided.

A173

ROBOTIC REDO HELLER MYOTOMY AND GASTRYC BYPASS IN RECURRENT ACHALASIA AND MORBID OBESITY

Emiliano Gabriel Manueli Laos *Chicago IL*[1], Alvaro Ducas *Chicago IL*[1], Beatriz Figueroa-Díaz *Chicago IL*[1], Paula Lopez *Chicago IL*[1], Alberto Mangano *Chicago IL*[1], Mario Masrur *Chicago IL*[1]
University of Illinois At Chicago[1]

Obesity and achalasia are different pathologies that sometimes may coexist, and both conditions must be treated individually. We present a 40-year-old female with severe obesity (BMI 48), who presented to the bariatric surgery department. Her past medical history is remarkable for achalasia, treated with Heller myotomy in 2018 in another institution. A preoperative EGD showed thickening and distention of the distal esophagus along with contrast retention, signs that were compatible with achalasia recurrence. The decision was to perform a robotic Roux-en-Y gastric bypass along with a redo of the Heller Myotomy. The procedure was well tolerated, and no signs of immediate postoperative complications were present. Follow up at 6 months after surgery showed a BMI of 36 and no symptoms of GERD or dysphagia. At 12 months postoperative, the patient remained asymptomatic and with a BMI of 34.

A159

Early Bowel Obstruction Remains Uncommon: A Rare Events Model of the MBSAQIP from 2015-2021

Teresa Schauer *Baton Rouge LA*[1], Michael Kachmar *Baton Rouge LA*[2], Florina Corpodean *New Orleans LA*[2], Iryna Popiv *Baton Rouge LA*[2], Devan Lenhart *New Orleans LA*[2], Denise Danos *New Orleans LA*[3], Michael Cook *New Orleans LA*[3], Philip Schauer *Baton Rouge LA*[2], Vance Albaugh *Baton Rouge LA*[2]
Pennington Biomedical / LSU[1] Pennington / LSU-HSC[2] LSU-HSC[3]

INTRODUCTION:
Early small bowel obstruction (eSBO) (within 30-days) presents a rare yet concerning complication, necessitating high rates of reoperation. Patient-specific and intraoperative characteristics may predispose patients to eSBO. We hypothesized eSBO is influenced by patient-specific and intraoperative factors, helping identify at-risk individuals perioperatively.

METHODS:
Examining the 2015-2021 MBSAQIP, 1,346,468 cases were reviewed, excluding pediatric, revisional, open-conversion, and cases missing data (sex/BMI/operative-time/<30-day-follow-up). In total, 1,016,484 records were included. in the final analysis. Baseline characteristics and case details were collected and compared using Fisher's exact & Wilcoxon-Mann-Whitney tests, though the likelihood of eSBO was modeled with rare event logistic regression.

RESULTS:
Incidence of eSBO was 0.40%. Of the 4,103 occurrences of eSBO; Roux-en-Y bypass (RYGB), sleeve gastrectomy (SG), and duodenal switch (DS) accounted for 79.4%, 19.3%, and 1.3%, respectively. Many patient-specific characteristics were significantly associated with eSBO (Table 1); including, prior foregut surgery, a non-MBS-trained operator, and longer operative times, which were all associated with increased eSBO (p= <.0001). When adjusted in a rare event logistic regression, eSBO was significantly higher in DS (OR 9.55, p=<.0001) and RYGB (OR 5.18, p= <.0001) compared to SG. Increased operative-length (OR 1.03, p= <.0001) and non-MBS-trained operators (OR 1.33, p= <.0001) remained highly significant. Male-sex (OR 0.70, p= <.0001) and diabetes (OR 0.78, p= <.0001) were both protective.

CONCLUSION(S):
In the largest analysis to date, SBO remains a rare 30-day event in MBS. RYGB accounts for the largest proportion of eSBO, however DS affords a higher adjusted risk of eSBO in a rare events model.

A367

Robotic Stricturoplasty and Gastro-gastrostomy for Gastric Sleeve Stenosis

Rebecca Dirks *Greenwood IN*[1], George Baison *Durham RI*[1], Ranjan Sudan *Durham NC*[1]
Duke[1]

Background:
Sleeve stenosis or angulation is a well-known complication of sleeve gastrectomy, and conversion to Roux-en-Y gastric bypass (RYGB) is the usual option for management. We describe an alternate approach in a patient with hiatal hernia,

Case Presentation:
A 57-year-old female with sleeve gastrectomy 4 months prior presented for a second opinion with persistent and worsening nausea, emesis and abdominal pain after oral intake and with TPN dependence. Upper GI studies and upper endoscopy confirmed hiatal hernia and sleeve stricturing/angulation. Given a history of prior steroid use and irritable bowel syndrome, she wished to avoid a gastric bypass with its potential risk for marginal ulcers and dumping syndrome. A hiatal hernia repair was conducted and then stricturoplasty was first attempted, but sleeve angulation persisted, so a gastro-gastrostomy was performed with straightening of her sleeve. She recovered unremarkably and was able to advance her diet and stop TPN.

Conclusions:
For sleeve stenosis, stricturoplasty and gastro-gastrostomy are viable alternatives to conversion to bypass. Bariatric surgeons should have these options in their armamentarium for patients not amenable to conversion to bypass.

Presidential Grand Rounds I

Tuesday, June 11th, 2024
9:30 AM – 10:15 AM

A249

Our First 500 Outpatient Sleeve Gastrectomies

Channing Chin *Wyckoff NJ*[1], Cynthia Weber [1], Alaa Barbour *Wayne NJ*[1], Sharon Meltzer *Glen Ridge NJ*[1], Shawn Garber [1]
New York Bariatric Group[1]

Background:
Sleeve gastrectomy (SG) is the most common bariatric procedure performed. Because it has a short operative time and good risk profile, it makes this surgery a safe option for same day discharge.

Methods:
A retrospective review/prospective date collection was performed on 516 consecutive patients who underwent SG from March 2022 to October 2023. All surgeries were performed in a single center, single specialty, freestanding ambulatory surgery center (ASC) by a multi-surgeon private practice group. Patient selection followed MBSAQIP low acuity center criteria (see image). Peri-operative protocols were universalized based on most recent ERAS protocols (see table). Patients were discharged within 4 hours of surgery. Demographics, comorbidities, wound occurrences, major complications, transfers to the hospital, emergency room (ER) visits within 36 hours of discharge, and hospital admissions within 30 days were tracked.

Results:
See image for patient demographics and comorbidities. Complications were 5 wound occurrences (4 being infectious), 2 portal vein thromboses, 1 pneumonia, 1 acute myocardial infarction, and 1 new onset atrial fibrillation. There were no episodes of bleeding or blood transfusions, leaks, or mortalities. 1 transfer to the ER occurred due to the patient having suicidal ideation postoperatively. The only reoperation was a diagnostic laparoscopy from the recovery room due to a syncopal episode and suspected bleed. There were 3(0.06%) ER visits within 36 hours and 11(2%) Hospital admissions within 30 days.

Conclusions:
SG can be performed safely in the outpatient setting with appropriately selected patients. Standardization of protocols is a key factor in optimizing outcomes.

A162

Hypoabsorptive metabolic and bariatric surgeries with same-day discharge: 30-day outcomes of a cohort from a high-volume center in Canada

ALEXIS Deffain *Montréal* [1], Ronald Denis *Ville Mont-Royal QC*[1], Heba Alfaris *Riyadh* [1], Karim Ataya *Montreal* [1], Samah Melebari *Montreal* [1], Adam Di Palma *Montreal* [1], Pierre Garneau [1], Radu Pescarus *Montreal* [1], Anne-Sophie Studer *Montréal* [1]
Hôpital du Sacré Cœur de Montréal[1]

BACKGROUND:

Post-pandemic access to operative room was restricted. Using our large experience in same-day discharge (SDD) sleeve gastrectomy, we extended this management to hypoabsorptive metabolic procedures.

OBJECTIVES:

To analyse retrospectively the early outcomes (≤30 days) of malabsorptive surgeries with planned SDD (≤12h).

METHODS:

Strict pre-operative criteria, enhanced recovery after bariatric surgery protocol and modified Post-Anesthesia Care Unit (PACU) criteria were applied. Hypoabsorptive procedures included Single Anastomosis Duodeno-Ileal Bypass (SADI-S), Roux-en-Y Gastric Bypass (RYGB), One-Anastomosis Gastric Bypass (OAGB) and Single Anastomosis Sleeve Ileal bypass (SASI). Unplanned overnight stay, emergency department (ED) visit, rehospitalization, morbi-mortality and reintervention rates were detailed.

RESULTS:

Since 2021, 208 patients experienced SDD malabsorptive procedures (191F/17M, mean age=41.4yo, mean preoperative BMI=41.9kg/m^2): 92 SADI-S, 72 RYGB, 35 OAGB and 9 SASI. Revision surgeries account for 76% of cases. Unplanned overnight stay and ED visit rate were both 4.3%. Rehospitalization rate was 6.25% (6 SADI-S, 5 RYGB, 1 OAGB and 1 SASI). Morbidity rate was 13.5%, including 3.8% major complications. For SADI-S-group, there were 2 duodenal leaks, 1 appendicitis, 1 intrabdominal abscess, and 1 commun bile duct stenosis. In the RYGB-group, there was 2 occlusions on the jejuno-jejunal anastomosis and 1 gastro-jejunal anastomosis bleeding. Only 5 of them required reintervention (2.4%). There was no Dindo-Clavien grade IV and no mortality.

CONCLUSIONS:

In our experience rates of unplanned overnight stay, readmission and reintervention were low and acceptable. Early outcomes suggest that SDD hypoabsorptive metabolic surgery seems safe and feasible in experimented teams with hyperselective criteria and appropriate post-operative follow-up

A241

Hospital at Home program for bariatric patients: A unique pathway emulating inpatient care at home same day of surgery

Benjamin Enciso *Charlotte NC*[1], Shawn Liechty *Charlotte NC*[1], Keith Gersin *Charlotte NC*[1], Timothy Kuwada *Charlotte NC*[1], Abdelrahman Nimeri *Boston MA*[1], Roc Bauman *Concord NC*[1], Marvin Knight III *Charlotte NC*[1], Steve Riggs *CHARLOTTE NC*[1], Kyle Thompson *Charlotte NC*[1], Iain Mckilllop *Charlotte NC*[1], SELWAN BARBAT *Novi MI*[1]
Atrium Health at Carolinas Medical Cente[1]

Introduction:
Same day discharge has been described in bariatric surgery. Our institution implemented a novel Hospital at Home (HAH) program to allow day of surgery transfer to home for select bariatric patients.

Methods:
Single-institution, multi-center study for select sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) patients (August 2022-November 2023). HAH patients were transferred to home from PACU with a peripheral IV and remote monitoring equipment. A paramedic performed an in-person "tuck in" visit the evening of surgery and the morning of postoperative day-1 (POD1) to enable IV administration of fluids/medications and a virtual visit with the treating team. Goal discharge was POD1. Primary 30-day outcomes included readmission and complications.

Results:
Overall, 32-patients (11 SG, 21 RYGB) were enrolled. Two patients were admitted to the hospital from PACU (diet intolerance and urinary retention) and did not complete the program. In total, 30 patients (93.75%) completed the HAH program. One patient was readmitted from home on POD1 for abdominal pain and discharged the same day (3.33%). One patient presented to the ED on POD18 for a syncope event and was discharged home (3.33%). Four patients were kept in HAH for an additional day secondary to nausea, vomiting, pain or tachycardia (13.33%).

Conclusion:
The HAH program implemented allowed for safe, same-day transfer to home for select bariatric patients.

A087

Frailty in veterans undergoing sleeve gastrectomy is associated with decreased excess weight loss at 5 year follow-up

Yang Lu *Palo Alto CA*[1], Dan Eisenberg *Palo Alto CA*[1], Cara Liebert *Palo Alto CA*[1], Kimberly Hwa [2], Aida Bruun [2]
Palo Alto VA, Stanford SOM[1] Palo Alto VA[2]

Background
Frailty is associated with increased postoperative complications following metabolic and bariatric surgery (MBS). The impact of frailty on weight loss outcomes after MBS is unknown.

Objective
Determine the impact of patient frailty on percent excess BMI loss (%EBMIL) up to 5 years after MBS.

Setting
Veterans Affairs medical center (VAMC).

Method
Retrospective analysis of a prospective database of consecutive bariatric operations performed at a single VAMC. Frailty was calculated using the Bariatric Frailty Score (BFS), from the Canadian Study of Health and Aging-Frailty Index (CSHA-FI). %EBMIL in "frail" patients (BFS≥4) was compared with "non-frail" patients (BFS≤3) at 1, 2, and 5 years, postoperatively. Student's t-test was used to compare means; $p<0.05$ was considered significant.

Results
Of 248 patients, 45 underwent RYGB (18%), 203 underwent SG (82%). Preoperatively, 59 patients were frail (24%), 189 patients were non-frail (76%). Follow up rate at 5 years was 96%.. After SG, %EBMIL was 40% in frail patients at 1 year vs. 53% in non-frail patients ($p<0.05$), 37% vs. 48% ($p<0.05$) at 2 years, 29% vs. 40% at 5 years ($p<0.05$). After RYGB, %EBMIL was 57% at 1 year in frail patients vs. 78% in non-frail patients ($p<0.05$), 55% vs. 77% ($p=0.2$) at 2 years, and 50% vs. 62% ($P = 0.2$) at 5 years.

Conclusion
Frailty is associated with significantly less %EBMIL up to 5 years after SG. A similar trend is seen after RYGB. Frailty assessment should be part of MBS preoperative evaluation, can help manage patient expectations, and guide post-operative care.

A081

Examining Racial and Ethnic Disparities: Pre-operative Profiles and 30-Day Outcomes in MBSAQIP Database Over 7 Years

Narayan Osti *new york NY*[1], Shamon Gumbs *New York NY*[1], Ameer Aboud *Piscataway NJ*[1], TUMOR PAEZ *New York NY*[1], Javier Andrade *Brooklyn NY*[2], Stephen Carryl *Glen Cove NY*[1], Karina McArthur *New York NY*[1] New York Health/Hospital[1] Woodhull Hospital Center[2]

Background

There is a paucity of data regarding racial disparities in bariatric surgery outcomes. This study aims to assess racial and ethnic disparities in bariatric care and represents the largest analysis of the MBSAQIP database to date.

Objectives

To analyze preoperative variables, intraoperative factors, and 30-day postoperative outcomes, comparing white vs. Black race and Hispanic vs. non-Hispanic ethnic groups.

Methods

A retrospective analysis included 1,193,655 patients undergoing Roux-en-Y gastric bypass, sleeve gastrectomy, and duodenal switch from the MBSAQIP database (2015-2021). Endoscopic, emergency cases, and conversions were excluded. Preoperative and intraoperative factors were examined via univariate analysis. Outcomes were assessed via logistic regression.

Results

Among 1,193,655 surgeries, 1,058,405 were categorized as Black (21%) or white (79%), and 1,081,516 as Hispanic (15%) or non-Hispanic (85%). White patients were more likely to undergo gastric bypass surgery than Black patients ($p < 0.01$). There were fewer Black males undergoing bariatric surgery than white males (12.68% vs. 20.92%, $p < 0.01$). Black race correlated with a higher frequency of robotic approaches (14.64% vs. 12.37%, $p < 0.01$). Black race (also subgroup non-Hispanic black) exhibited higher odds of death (OR 1.64, CI 1.38-1.95, $p < 0.01$) and increased odds for several adverse outcomes compared to white patients. Hispanic patients demonstrated lower odds of adverse outcomes compared to non-Hispanic patients with the exception of higher readmission.

Conclusion

Black patients had worse 30-day outcomes compared to white patient within the majority of variables. Comorbidities and outcomes were better in the Hispanic group compared to non-Hispanic.

Presidential Grand Rounds II

Tuesday, June 11th, 2024
12:00 PM- 12:45 PM

A326

National Evaluation of Emergency Department Overutilization Following Bariatric Surgery

Qais AbuHasan *Indianapolis IN*[1], Wendy Li *Indianapolis IN*[1], Charles Burney *Carmel IN*[1], Dimitrios Stefanidis *Carmel IN*[1], Tarik Yuce *Hilliard OH*[1]
Indiana University School of Medicine[1]

Introduction:
ED overutilization represents an avoidable source of increased healthcare costs. While bariatric surgery has low rates of postoperative complications, postoperative ED visits have been reported in 10-15% of patients. In this study, we aimed to report the frequency of ED overutilization following bariatric surgery, in addition to identifying predictors and reasons for ED visits, and timing of recurrent visits.

Methods and Procedures:
The MBSAQIP national database was queried to identify adult patients who underwent bariatric procedures from 2016 to 2022. Overutilization was defined as two or more postoperative ED visits that did not result in an admission. Multivariable logistic regression was used to determine predictors of overutilization. ED discharge diagnoses were characterized in the overutilization cohort.

Results:
Of the 1,272,652 patients included, 11,923 (0.9%) were ED overutilizers and predominantly female (88.7%) with a mean age of 40.8±11 years. Multivariable analysis revealed that Black patients and those who underwent Roux-en-Y gastric bypass had higher odds of ED overutilization (aOR: 1.49, $p<0.001$, and aOR: 1.75, $p<0.001$). Postoperative pain, nausea, and vomiting were the predominant diagnoses associated with ED visits (Figure 1). Overutilizers presented to the ED earlier compared to patients with only one ED visit (mean: 9.7 vs. 12.7 days, $p<0.001$).

Conclusion:
ED overutilization following bariatric surgery represents a rare event that appears to be driven by potentially preventable causes including pain, nausea, and vomiting. Predictors of overutilization include patient demographics, comorbid conditions, and procedure type. Understanding these drivers can guide targeted interventions to optimize postoperative care and reduce ED burden.

A279

The influence of obesity and metabolic and bariatric surgery on breast cancer-related surgery

Pauline Aeschbacher *Weston FL*[1], Noam Kahana *Weston FL*[1], David Romero Funes *Plantation Florida FL*[1], Weiss Brett *Weston FL*[1], Hong Liang *weston FL*[1], Zoe Garoufalia *Weston FL*[1], Ana Pena *Weston FL*[1], Samuel Szomstein *North Miami Beach FL*[1], Emanuele Lo Menzo *Weston FL*[1], Raul Rosenthal *Weston FL*[1]
Cleveland Clinic Florida[1]

Introduction:
Recent studies emphasize the benefits of bariatric surgery in reducing breast cancer risk. This study aims to assess the impact of overweight, obesity and history of severe obesity on the incidence of breast cancer-related surgeries.

Methods:
Data from the Nation Inpatient Sample collected from January 2010 to September 2015 were examined for female patients admitted for breast cancer-related surgery as an indirect measure of resectable breast cancer incidence. Univariate and multivariate logistic regression assessed the risk of breast cancer-related surgery based on age, comorbidities, family history of breast cancer, smoking, BMI and history of obesity.

Results:
Analysis included 1,435,398 female patients, among whom 0.25% (n=3,555) underwent breast cancer-related surgery (breast preserving, n=765, mastectomy or radical mastectomy, n=2,859, both procedures n=69). The incidence of breast cancer-related surgery was 0.1% for normal weight, 0.18% after bariatric surgery, and 0.28%, 0.39% and 0.29% for overweight, obesity class I and II or more, respectively. Multivariate analysis revealed that obesity was a significant risk factor for breast cancer-related surgery [Overweight: OR:2.99, $p<0.0001$), Class I: OR:4.29 $p<0.0001$), Class II and more: OR:3.29, $p<0.0001$)]. History of severe obesity was associated with a persistent risk of resectable breast cancer, (OR:1.74, $p<0.0001$) with lower odds ratio than individual with obesity.

Conclusion:
Despite significant and rapid weight loss after metabolic and bariatric surgery, individuals with a history of severe obesity had a higher incidence of resectable breast cancer when compared to non-obese cohort. This suggests a potential influence of the duration of untreated obesity on breast cancer risk.

A197

Impact of High-Protein Bariatric Diet on the Prevention of Postoperative Nausea and Vomiting (PONV)

Amrita Iyer *Philadelphia PA*[1], Brigitte Anderson *Baltimore MD*[2], Martina Rama *Philadelphia PA*[1], Abigail O'Connell *Philadelphia PA*[1], Anna Torres *Philadelphia PA*[1], Renee Tholey *Philadelphia PA*[1], Alec Beekley *St Davids PA*[1], Francesco Palazzo *Philadelphia PA*[1], Talar Tatarian *Philadelphia PA*[1]
Thomas Jefferson University[1] University of Maryland Medical Center[2]

Introduction:

Postoperative nausea and vomiting (PONV) is common following bariatric surgery, contributing to increased healthcare utilization and length of stay (LOS). Studies have suggested the benefit of protein-predominant meals in suppressing gastric tachyarrhythmia and PONV. This study investigated the impact of a high-protein postoperative liquid diet on PONV and LOS after primary sleeve gastrectomy (SG).

Methods:

This prospective randomized trial included adult patients undergoing primary SG. Exclusion criteria were history of bariatric/foregut surgery, chronic nausea/vomiting, HbA1C ≥9, or therapeutic anticoagulation. Patients were randomized 1:1 to receive a bariatric clear liquid (control) or high-protein full-liquid (intervention) diet starting 4 hours postoperatively. The primary endpoint was incidence of PONV. Secondary endpoint was increased LOS due to PONV. Pearson's chi squared test for independence was performed to compare outcomes between both groups on an intention-to-treat basis.

Results:

112 patients were randomized (56 control, 56 intervention). Most patients were female (80.4%). All underwent laparoscopic (72.3%) or robotic (27.7%) SG, and 90.2% received inhalational anesthesia. In the intervention arm, 15 patients had zero protein intake due to PONV, 6 had missing data, and 35 had a mean intake of 24.2 grams. There was no observed treatment effect on PONV (78.6% control vs. 89.3% intervention; 95% CI, -0.05% to 0.26%; p=0.20). Almost 70% of patients were discharged home on POD1. Delay in discharge due to PONV was not significant between groups (32.1% control vs. 28.6% intervention; 95% CI, -0.22% to 0.15%; p=0.84).

Conclusions:

Early introduction of liquid protein after SG does not improve PONV or LOS.

A355

INTERNATIONAL MULTICENTER STUDY OF 2 STEP SADI AS A RESCUE FOR SLEEVE GASTRECTOMY

Amador Garcia Ruiz de Gordejue *Donostia* [1], Javier Osorio *L'Hospitalet de Llobregat, Barcelona* [2], Andrés Sánchez-Pernaute *Madrid* [3], Mario Nora [4], Andre Teixeira *Orlando FL*[5], Javier Baltar *Santiago de Compostela* [6], Claudio Lazzara *Hospitalet De Llobregat* [2], Miguel Angel Rubio-Herrera *Madrid* [3], Ana Marta Pereira [7], Mohammad Jawad [5], Fernando Santos *Santiago de Compostela* [6] Hospital Universitario Donostia[1] Hospital Universitari de Bellvitge[2] Hospital Clinico San Carlos[3] Centre Hospitalar entre Vougo e Doura[4] Orlando Health[5] Hospital Universitario de Santiago[6] Centre Hospitalar entre Douro e Vouga[7]

Introduction.

Sleeve gastrectomy (SG) is effective and versatile, but weight recidivism or insufficient loss is up to 30%. SADI is a safe, reproducible, and effective solution.

Aim.

Evaluate the results of an international multicenter series of SADI as a rescue for SG.

Methods.

Retrospective survey for patients converted to SADI from SG Data from SG, and SADI were collected. Weight loss and safety were the main variables.

Results.

5 centers from Spain, Portugal and United States participated. 141 cases were collected, 65.6% women, mean age of 42.28 (18-63) at the time of SG. Initial BMI was 51.65kg/m^2 (SD 9.13, range 36.57 to 89.35). Time interval was 39.11 months (SD 27.35, range 3 to 111). BMI at conversion was 39.93kg/m^2 (SD 7.37, range 21.04 to 63.91). TWL after 60 months of SADI was 32.26% (SD 12.02) and BMI 34.33kg/m^2 (SD 5.77). Time interval between procedures did not present an any influence weight loss on an overall view, and neither after stratifying it by quartiles. When we put all cases in a continuous timeline from SG to SADI, we observe up to 10 years follow-up and final BMI and TWL (32.92kg/m2 ± 6.42 and 33.56% ± 10.49, respectively) equivalent to primary SADI-S. Overall major morbidity was below 1.5% and there was no mortality.

Conclusions.

SADI as a rescue of SG is safe and effective procedure. Time interval does not seem to have any influence in final weight loss. Second step SADI seems to behave same way as primary procedures.

A134

Evaluation of Patients on Immunosuppressants Undergoing Sleeve Gastrectomy, Roux-en-Y Gastric Bypass, and Duodenal Switch: An Analysis of 19,414 Patients

Emily Grimsley *Tampa FL*[1], Melissa Kendall *Tampa FL*[1], Tyler Zander *Tampa FL*[1], Paul Kuo *Tampa FL*[1], Salvatore Docimo *Coram NY*[1]
University of South Florida[1]

Background:
Bariatric surgery outcomes for patients on chronic immunosuppression are understudied, especially with the recent uptick in duodenal switch (DS). This study compares perioperative safety of sleeve gastrectomy (SG), Roux-en-Y gastric-bypass (RY), and DS in patients on immunosuppressants.

Methods:
Utilizing MBSAQIP 2015-2021 data, we analyzed patients on immunosuppressants who underwent SG, RY, or DS; excluding revisional and open surgeries. Outcomes were 30-day reoperation, readmission, additional procedural intervention, mortality, composite complication, and anastomotic/staple-line leak. Propensity-score matched (PSM) analysis (3:3:1 SG:RY:DS) was performed

Results:
We identified 19,414 patients: 14,358 SG, 4,864 RY, and 192 DS. DS patients had higher ASA Class, BMI and more comorbidities. RY patients more often had pre-operative GERD, COPD, and OSA. Overall complication rates were low. After PSM, LOS was similar (1 [1-2] SG vs. 2 [1-2] RY vs. 2 [1-3] days DS) and SG had the lowest complication, readmission, and reoperation rates; no difference between RY and DS. RY had higher rates of bowel obstruction (2.26 vs. 0.17 SG vs. 0.52% DS). DS had higher rates of unplanned intubation and ICU admission compared to SG. There was no difference in 30-day mortality.

Conclusion:
Overall, SG, RY, and DS all have favorable safety profiles for patients on immunosuppressants, as evidenced by low mortality rates, short LOS, and minimal serious complications. PSM indicates RY and DS have higher risk of complication and reoperation compared to SG, but overall outcomes were similar, particularly between RY and DS. Thus, immunosuppression alone should not alter the bariatric procedure chosen.

Presidential Grand Rounds III

Tuesday, June 11th, 2024
12:45 PM- 1:30 PM

A015

Statin Use Trajectories after Bariatric Surgery: A Matched Cohort Study

Anyull Bohorquez Caballero *Jacksonville FL*[1], Elizabeth Wall-Wieler *Sunnyvale CA*[2], Yuki Liu *Sunnyvale CA*[3], Feibi Zheng *Houston TX*[3], Michael Edwards *Ponte Vedra Beach FL*[1]
Mayo Clinic Florida[1] University of North Carolina[2] Intuitive Surgical, Sunnyvale CA, USA[3]

Background:
Metabolic and bariatric surgery (MBS) is the most effective and durable treatment of obesity and can induce resolution of hyperlipidemia. We aimed to compare trajectories of statin use between individuals who had MBS and similar individuals who did not have MBS.

Methods:
Adults with a BMI of at least 35 kg/m² were identified in Merative™ (US employer-based retrospective claims database). Individuals who had MBS between 2016 and 2021 were matched 1:1 with those who did not with baseline demographic and health characteristics. Trajectories of statin use were stratified by statin use in the year before the index procedure date and examined in the two years after the index procedure date.

Results:
18,042 adult MBS patients were compared to 18,042 matched patients without MBS. In both cohorts, 19.4% filled a prescription for statins in the year before the index procedure date. Two years after index procedure date, statin use remained similar at 18.3% in the non-MBS cohort but decreased to 9.2% in the MBS cohort (Figure 1). Among individuals using statins at baseline, discontinuation at 2-years was more common in the MBS cohort (60.7% vs. 35.4%, $p<0.01$). Among individuals without statin use at baseline, statin use initiation was more common in the non-MBS cohort (9.1% vs. 2.6%, $p<0.01$) at -2years.

Conclusions:
MBS significantly increases statin discontinuation, and reduces statin initiation, demonstrating that MBS is both a treatment and preventative measure for dyslipidemia.

A264

Insufficient Weight Loss after Laparoscopic Sleeve Gastrectomy: Is Conversion to Duodenal Switch Superior to Roux-en-Y Gastric Bypass?

Jorge Cornejo Aguilar *Randallstown FL*[1], Lorna Evans *Jacksonville FL*[1], Nafiye Busra Celik *Jacksonville FL*[1], Enrique Elli *Jacksonville FL*[1]
Mayo Clinic Florida[1]

Background:
Up to 30% of LSG cases require revisional surgery in patients who experience insufficient weight loss (IWL). This study aimed to compare perioperative outcomes and weight changes in patients who underwent either conversion from LSG to Roux-en-Y Gastric Bypass (C-RYGB) or Duodenal Switch (C-DS).

Methods:
This study was a nonrandomized, controlled, retrospective review of 73 patients who underwent conversion of LSG due to IWL at our institution from January 2015 to August 2023. Perioperative and postoperative variables were examined.

Results:
Of 481 LSGs, 73 patients (63 C-RYGB; 10 C-DS) underwent conversion due to IWL. The average time to conversion was 5 years with a higher preoperative BMI in the C-DS group compared to C-RYGB (56.7 kg/m^2 vs 40.0 kg/m^2, $p<0.001$). Additionally, C-DS showed shorter operative time (143.9 min vs 180.1 min, p=0.050) and a similar length of hospitalization than C-RYGB. There was no significant difference in late reoperation rate between groups (8 C-RYGB: 4 internal hernias, 4 cholecystectomies vs 2 C-DS: 1 internal hernia, 1 cholecystectomy). The C-DS group had significant differences in %TWL at 12- (30.3% vs 19.1%, p=0.016) and 24-month follow-up (33.3% vs 18.8%, p=0.017) over C-RYGB (Figure 1). Higher preoperative BMI at the time of conversion was a predictive factor of greater weight loss (each 1 kg/m^2 increase yielded 0.7% greater %TWL).

Conclusions:
C-DS appears to be safe and feasible for the surgical management of IWL after LSG. In addition, C-DS provides a significantly higher %TWL at 12 and 24 months compared to C-RYGB.

A044

Insights into Post-Surgical Risks: Exploring the Relationship Between Insurance Payer Status and Major Adverse Cardiovascular and Cerebrovascular Events in Metabolic Surgery

Florina Corpodean *New Orleans LA*[1], Michael Kachmar *Baton Rouge LA*[1], Denise Danos *New Orleans LA*[2], Linda Adepoju *New Orleans LA*[1], Michael Cook *New Orleans LA*[2], Philip Schauer *Baton Rouge LA*[1], Vance Albaugh *Baton Rouge LA*[1] Pennington / LSU-HSC[1] LSU-HSC[2]

Introduction*:*

Patients with Medicare/Medicaid insurance utilize metabolic surgery (MS) at lower rates compared to the privately insured (PI). Individuals with Medicare/Medicaid insurance also have increased post-operative complications and longer length of stay. Among often-feared post-operative complications are major adverse cardiovascular events (MACE). Although rare after MS, MACE has a significant impact on morbidity and mortality, and this study aimed to examine the effect of insurance payer status on MACE outcomes after MS.

Methods*:*

The Healthcare Cost and Utilization Project-National Inpatient Sample (HCUP-NIS) was used for the current study, a deidentified, publicly available dataset. Individuals undergoing sleeve gastrectomy or Roux-en-Y gastric bypass between 2012-2019 were included. Bivariate associations between patient-level factors and MACE were assessed via Rao-Scott chi-square tests and adjusted/unadjusted risk of insurance payer status for MACE were evaluated using logistic regression.

Results*:*

MACE incidence was higher in both Medicare and Medicaid groups compared to PI (0.75/0.15% vs 0.11% $p<0.001$). After adjustment for high-risk demographics, co-morbidities, socio-economic, and hospital factors, insurance status of Medicare (OR1.60(1.23,2.07) $p=0.0026$) or Medicaid (OR1.55(1.12,2.16) $p=0.0026$) remained an independent risk factor for MACE.

Discussion*:*

Despite risk adjustment, Medicaid and Medicare insurance status remained independent risk factors for postoperative MACE after MS. The results of this study could have significant impact on deepening our understanding of socioeconomic and health system-related issues that could be targeted to improve outcomes in both MS and other surgical specialties.

A383

LONG TERM INCIDENCE OF BARIATRIC RELATED PROCEDURES FOLLOWING LAPAROSCOPIC GASTRIC BYPASS: 15 TO 20 YEARS SINGLE INSTITUTION EXPERIENCE. DO WE HAVE OUR CHOLECYSTECTOMY RECOMMENDATIONS CORRECT?

Tanner Roser *Danville PA*[1], Luis Pina *Danville PA*[1], G. Craig Wood *Danville PA*[1], Lynzi Smith *Scranton PA*[2], Jennifer Bekker *Hanover PA*[2], Joseph Nguyen-Lee *Danville PA*[1], Ryan Horsley *Scranton PA*[1], Benefsha Mohammad *Danville PA*[1], Alexandra Falvo *Scranton PA*[1], Christopher Still *Danville PA*[1], Mark Mahan *Danville PA*[1], Peter Benotti *Danville NY*[1], Anthony Petrick *Danville PA*[1], David Parker *Danville PA*[1], Vladan Obradovic *Manlius NY*[1]
Geisinger Medical Center[1] Geisinger Commonwealth School Medicine[2]

Background:
Long-term data on the likelihood of undergoing additional related procedure after laparoscopic Roux-en-Y Gastric Bypass (LRYGB) remain scarce. The aims of this study are to identify the long-term incidence of bariatric related procedures, patient's predictive factors, and most common operations in the 15-20 years following LRYGB.

Methods:
We performed a retrospective analysis of all LRYGB performed at Single Institution from 2003-2008. All subsequent bariatric related procedures performed were manually reviewed. We excluded upper endoscopies. Our Institutional policy within the studied period entailed that all patients with cholelithiasis at the time of LRYGB underwent concomitant cholecystectomy, and all internal spaces were closed. Kaplan-Meier analysis was utilized to estimate the time to procedure. Cox regression was used to determine patient's factors associated with time until procedure.

Results:
Of the 665 patients included, 35% had >15 years follow-up (median follow-up = 14 years). There were 248 (37.3%) with a related procedure. After excluding panniculectomy, 199 (29.9%) had a related procedure. The 3 most common procedures were panniculectomy [n=77 (12%)], followed by cholecystectomy [n=64 (10%)], and internal hernia repair [n=56 (8%)]. The Kaplan-Meier estimated incidence of related procedure at 15 years was 43.7% and 35.3% after excluding panniculectomy. Females (HR=1.77, 95% CI=[1.20, 2.62, p=0.0039), age<50 (HR=1.42, 95% CI=[1.07, 1.88], p=0.014), and BMI>60 (HR=2.77, 95% CI=[1.30, 5.91], p=0.0083) were more likely to have a related procedure.

Conclusion:
Bariatric related procedures are common after LRYGB. Previous reports have likely underestimated the rate of related surgeries, particularly biliary procedures.

A372

Bariatric Surgery outcomes in Septuagenarians and Octogenarians with validation of Geriatric bariatric scoring tools.

Pearl Ma *Fresno CA*[1], Morgan McGrath *Fresno CA*[2], Lauren Hill *Fresno CA*[2], Abhishek Gulati *Clovis CA*[2], Amarita Klar *Fresno CA*[1], Keith Boone *Fresno CA*[1], Kelvin Higa *Fresno CA*[1], Yinan Wei *Fresno CA*[1] ALSA/Community Health Partners[1] Fresno Heart and Surgical Hospital[2]

Introduction:

As the geriatric population grows, more patients will be eligible for metabolic and bariatric surgery (MBS), which challenges the definition of geriatrics beyond age 65. Published scoring systems such as bariatric fragility scores (BFS, scores >5=high risk) and GeriBari (GB, score >14=high risk) scores can aid in predicting the risk of serious postoperative complications. This abstract presents the largest single-center outcomes of MBS in patients aged ≥ 70.

Materials/Methods:

A single-center retrospective cohort study 2012-2022, patients ages ≥ 70 underwent laparoscopic sleeve gastrectomy (LSG) or roux-en-y gastric bypass (LRYGB). Outcomes compared to our center's extrapolated cohort of MBS patients aged 45-65.

Results:

130 patients, mean age 72.1 (range 70-80), 63% female, BMI 42.9 (SD 5.76), and 65% underwent LSG. Compared to a cohort of 3665 patients age 45-65, the length of stay average of 1.9 days (SD 1.9) vs. 1.4 (SD 1.38) (p=0.001), overall 30-day readmission rate of 5.4% vs. 5.7% (p = 0.439), reoperation rate of 3.1% vs. 2.7% (p = 0.406), and overall complication rate 9.2% vs. 5.9% (p= 0.056) with one 30-day mortality due to unknown causes. LRYGB vs. LSG patients had a higher reoperation rate (8.7% vs 0.0%, p=0.003) and complication rate (17.4% vs 4.8%, p = 0.009). High-risk BFS and GB scores (p = 0.014, p = 0.026) were associated with 30-day postoperative complications.

Conclusions:

MBS in septuagenarians and octogenarians had safer outcomes undergoing LSG than RYGB. BFS and GB scores deeming patients high risk were associated with a higher 30-day postoperative complication rate.

Presidential Grand Rounds IV

Tuesday, June 11th, 2024
3:00 PM – 3:45 PM

A098

Conversion to Roux-en-Y Gastric Bypass: A Successful Reoperative Strategy for Post-Sleeve Reflux

Jorge Cornejo Aguilar *Randallstown FL*[1], Lorna Evans *Jacksonville FL*[1], Nafiye Busra Celik *Jacksonville FL*[1], Enrique Elli *Jacksonville FL*[1]
Mayo Clinic Florida[1]

Background:
The incidence of GERD after SG is reported to be up to 35%, being RYGB conversion as the procedure of choice. We aim to determine the incidence of long-term reflux symptoms, PPI use, and weight changes after conversion of SG to RYGB (C-RYGB). Also, identify the factors associated with persistent reflux symptoms.

Methods:
We performed a retrospective analysis of patients who underwent C-RYGB at our institution from 2015 to 2023. The patient's charts were then reviewed to evaluate for symptoms, PPI use, and weight-related data.

Results:
103 patients (86% female; 53.1±11.9 years) underwent C-RYGB (86 reflux; 17 IWL) with a mean BMI of 35.7±7.1 kg/m^2. 79.4% (n=81) of patients had a repair of concomitant hiatal hernia (32.1% recurrent HH). At 14±9 months of follow-up, 83.7% had a success rate for resolution of reflux symptoms ($p<.005$), and 44.1% were able to stop PPI use ($p<.005$) (Figure 1). Dysphagia, nausea/vomiting, and abdominal pain decreased by 31%, 18%, and 4%, respectively. Only 2 (1.9%) HH recurred and were asymptomatic. In addition, TWL% and EWL% were 14.4% and 39.1%, respectively. Factors associated with post-conversion reflux were an average time to conversion >7 years (OR 4.25), reflux before SG (2.92), and PPI use twice per day (OR 1.48).

Conclusion:
While C-RYGB markedly improves reflux symptoms and reduces PPI use, it doesn't confer optimal long-term weight loss. Average time to conversion, reflux before SG, and PPI use were associated with persistent reflux. Conversion to RYGB should be considered an effective surgical option for post-sleeve reflux.

A410

Combining Jejuno-jejunostomy Distalization and Sleeve Resection of the Gastrojejunostomy and Gastric Pouch for Weight Regain after Roux-en-Y Gastric Bypass

Arturo Estrada *Bronx NY*[1], Jorge Humberto Rodriguez-Quintero *Bronx NY*[1], Xavier Pereira [1], Erin Moran-Atkin [1], Jenny Choi [1], Diego Camacho *Bronx CT*[1]
Montefiore Medical Center[1]

Background:
Currently, there is no standardized approach for addressing weight regain following Roux-en-Y gastric bypass (RYGB). Combining jejuno-jejunostomy distalization (JJD) by shortening the total alimentary limb length (TALL) and elongating the biliopancreatic limb (BPL), along with sleeve resection of the gastrojejunostomy and gastric pouch (SRGJ) may offer a solution to these patients.

Objectives:
To demonstrate the bariatric outcomes of the largest series in the literature for this combined revisional procedure.

Setting:
High-volume academic bariatric center of excellence.

Methods:
Retrospective review of 61 patients who underwent this combined technique from 2020 to 2022. During the procedure, a gastrojejunostomy <2 cm, TALL >350 cm, and a new common channel (NCC) >200 cm were created. Postoperative bariatric outcomes and nutritional deficiencies were analyzed at one year.

Results:
Median preoperative body mass index (BMI) was 42.59 Kg/m^2. Lengths of the BPL before and after distalization were 50 cm and 175 cm, respectively. After revision, the NCC was 270 cm and the TALL was 400 cm. At 1, 6, and 12 months the median BMI of the cohort was reduced to 39.14, 35.55, and 32.9 Kg/m^2, respectively. At 1-year, excess BMI loss (%EBMIL), excess weight loss (%EWL), and total weight loss (%TWL) were 54.47%, 51.87%, and 22.18%, respectively. Vitamin A (36.07%), D (50.82%), and K (32.79%) deficiencies were identified more frequently, but no reversal surgery was required. The 30-day complication rate was 4.9% (n=3).

Conclusions:
The combination of distalization and SRGJ is safe and effective, with substantial improvement in weight loss at one year.

A164

Long term weight loss outcomes and major adverse cardiovascular events after Roux-en-Y gastric bypass and sleeve gastrectomy: experience from two MBSAQIP centers.

Kyle Thompson *Charlotte NC*[1], Allison Tokarski *Cincinnati OH*[2], Ishita Doshi *Raritan NJ*[3], Iain Mckillop *CHARLOTTE NC*[1], Jörg Tomaszewski *Raritan* [3], Abdelrahman Nimeri *Boston MA*[1], SELWAN BARBAT *Novi MI*[1]
Atrium Health[1] Ethicon, Cincinnati, OH[2] Ethicon, Raritan, NJ[3]

Introduction:
Obesity is associated with significant health concerns including major adverse cardiovascular events (MACE). There is ongoing debate regarding long-term weight loss following different metabolic and bariatric surgery (MBS) procedures and impact on MACE. This study evaluated short, mid, and long-term weight loss after Roux-en-Y Gastric Bypass (RYGB) or Sleeve Gastrectomy (SG) and MACE.

Methods:
Retrospective review of our institutional MBSAQIP registry (2010-2021) after RYGB or SG was performed. We captured demographics and compared 1-, 5-, and 10-year post-operative weight change and 30-day postoperative complications as defined in the MBSAQIP registry.
Results: Overall, 6,305 patients were included (2,878 SG, 3,427 RYGB). Significant differences ($p<0.0001$) in preoperative BMI (45.6% versus 44.3%), diabetes (28.5% versus 21.5%) and GERD (29.7% versus 24.4%) were detected in RYGB versus SG, and RYGB patients had increased procedure lengths and lengths of stay . No differences in VTE, MI, ICU admission, 30-day intervention or 30-day mortality were observed between RYGB and SG patients. Higher incidences of reoperation (7.5% versus 4.6%; $p<0.0001$) and readmission (4.8% versus 3.4%; $p<0.05$) occurred in RYGB vs SG. Percent excess weight loss (%EWL) was significantly higher at 1, 5, and 10-years for RYGB (48.7%) versus SG (38.1%) patients. There were no differences in MACE or all-cause mortality in RYGB vs SG.

Conclusion:
Despite expected differences in co-morbidities between RYGB and SG patients we observed increased weight loss in RYGB patients with similar MACE profiles and observed persistent %EWL at 10-years for RYGB vs SG.

A379

Revisional bariatric surgery outcomes in Septuagenarians and Octogenarians

Pearl Ma *Fresno CA*[1], Morgan McGrath *Fresno CA*[2], Oliver Knoell *Fresno CA*[3], Lauren Hill *Fresno CA*[2], Abhishek Gulati *Clovis CA*[2], Amarita Klar *Fresno CA*[1], Keith Boone *Fresno CA*[1], Kelvin Higa *Fresno CA*[1], Yinan Wei *Fresno CA*[1]

ALSA/Community Health Partners[1] Fresno Heart and Surgical Hospital[2] Community Health Partners[3]

Introduction

As the geriatric bariatric population grows, more patients may require elective revisional bariatric surgery (MBS). Revisional MBS has a known high complication rate; however, the risk is presumed higher in geriatric patients. This abstract presents the first outcomes of elective revisional MBS in patients aged ≥ 70.

Methods:

Single-center retrospective cohort study from 2012 to 2022 of patients ages ≥ 70 who underwent elective revisional MBS (GRB). Revisional MBS were categorized as conversion operations (vertical banded gastroplasty to roux-en-y gastric bypass (RYGB), or RYGB to duodenal switch), augmentation (type 1 distalization), corrective operations (revisions of gastrojejunostomy or esophagojejunostomy), or reversal of RYGB. Outcomes are compared to our extrapolated cohort of revisional MBS (RB) patients aged 45-65 and a geriatric cohort of bariatric patients ages >70 (GP) undergoing laparoscopic RYGB and SG.

Results:

51 patients, mean age 73.4 (range 70-88), 82% female. Extrapolated cohort of 1205 RB patients and 130 GP patients. Our GRB 30-day postoperative readmission rate was 3.9% vs RB 12.4 % (p=0.034) vs GP 5.3% (p=0.35). 30-day reoperation rates were GRB 9.8% vs RB 6.1% (p=0.146) vs GP 3.1% (p=0.030). 30-day postoperative complication rate was 15.7% versus RB 12.0% (p=0.217) GP 9.2% (p= 0.103) with no 30-day mortality. All-cause mortality rate was 7.8%. More complications were seen in the corrective operations group (Table 1).

Conclusions:

Revisional MBS in patients age ≥ 70 had lower readmission rates but not significantly higher complication rate than younger patients undergoing revisional MBS. Revisional MBS can be safely performed in septuagenarians and octogenarians.

Presidential Grand Rounds V

Wednesday, June 12th, 2024
9:30 AM- 10:15AM

A489

Evaluating Postoperative Conversion Trends in the Elderly: An MBSAQIP-Based Analysis of Bariatric Surgery Outcomes

Juan Barajas-Gamboa *Abu Dhabi* [1], Thomas Shin *Boston MA*[2], Gustavo Romero-Velez *New York NY*[3], Andrew Strong *Cleveland OH*[3], Salvador Navarrete *Cleveland OH*[3], John Rodriquez *cleveland Ohio*[1], Ricard Corcelles *Cleveland OH*[3], Matthew Kroh *Cleveland OH*[3], Jerry Dang *Cleveland OH*[3]
Cleveland Clinic Abu Dhabi[1] Brigham and Women's Hospital[2] CLEVELAND CLINIC[3]

Introduction:
Bariatric surgery is increasingly common among elderly patients, yet conversion trends remain under-explored in this population. Utilizing the MBSAQIP database, this study aims to provide a comprehensive analysis of conversion trends post-bariatric surgery in the elderly.

Method:
We conducted a retrospective analysis of conversional bariatric surgeries reported in the MBSAQIP database from 2020 and 2022. The percentage of cases, demographics, indications, complications, and mortality for conversional procedures in elderly patients were analyzed.

Result:
Out of 51,138 conversional bariatric surgery patients, 3,746 elder patients underwent conversions during 2020-2022. The initial procedures included 1,479 (39,4%) sleeve gastrectomy (SG), 2,086 (55.6%) adjustable gastric banding (AGB) and 181 (4.8%) vertical banded gastroplasty (VBG), respectively. Baseline comorbidities were similar between groups. The indications for surgery varied based on the conversional procedures, however conversional cases focused more on weight-related complications. In the elderly, SG-to-Roux en-Y gastric bypass (RYGB) was the most common conversion (1359, 91.9%), followed by AGB-to-SG (1203, 57.6%), and AGB-to-RYGB (830, 39.7 %). VBG conversions occurred to SG (13, 7.2%) or RYGB (168, 92.8%). VBG to-RYGB had the longest operative time (249 ± 110.9 minutes) and length of stay (3.7. ± 5.8 days). VBG-to-RYGB had the highest serious complication (31, 18.4%), reoperation (13, 7.7%), postoperative bleeding (4, 4.1%) and mortality (7, 4.1%) rates. **(Table 1)**.

Conclusion:
Our results suggest different patterns for conversional bariatric surgery in the elderly. This study shows that procedures were safe, although complications rates and mortality were higher after VBG-to-RYGB conversions.

A459

The National Trend of Metabolic Bariatric Surgery in US between 2016-2020; A National Readmission Database Study

Ali Esparham *Mashhad* [1], SAEED SHOAR *Largo MD*[2], Zhamak Khorgami *Tulsa OK*[3]
Mashhad Univesity of medical Sciences[1] Department of Clinical Research, Scienti[2] Department of Surgery, University of Okl[3]

Introduction:
As the incidence of obesity among adolescents continues to rise, there is a concurrent increase in the utilization of metabolic bariatric surgery (MBS). The objective of this study is to assess the trend of MBS, obesity related comorbidities, in-hospital outcomes, and readmission in adolescent with severe obesity.

Methods:
Patients with severe obesity aged 12-19 years old undergoing gastric bypass (GB) or sleeve gastrectomy were identified using national readmission database (NRD) 2016-2020 database. Sample weights recommended by HCUP was used for estimation. Cochran–Armitage and linear regression tests were used for trend analysis.

Results:
A total of 7,458 adolescents underwent MBS (Sleeve gastrectomy: 6114 and GB:1344). The annual trend of MBS showed a continuous rise, from 1,346 (0.14%) in 2016 to 1,393 (0.16%) in 2020 ($p < 0.001$). In patient underwent MBS, the trend of hypertension, dyslipidemia, obstructive sleep apnea, NAFLD and GERD was increasing ($p < 0.001$). In addition, mean LOS decreased significantly from 1.8 days in 2016 to 1.5 days in 2020 ($p<0.001$). On the other hand, total hospital charges significantly increased from 47,677$ in 2016 to 56,132$ in 2020 ($p<0.001$). A total of 194 and 283 patients had 30 days and 90 days readmission, respectively. The causes of 90 days readmission are shown in Figure 1.

Conclusion:
The utilization of MBS in adolescents is on the rise, demonstrating a commendable safety profile characterized by low rates of complications and readmissions.

A101

Comparing Health Care Disparities in Access to Metabolic and Bariatric Surgery between Adolescents and Adults

Alisa Khomutova *Saint James NY*[1], Adrian Torres *Stony Brook NY*[2], Ila Sethi *Stonybrook NY*[2], Jie Yang *STONY BROOK NY*[3], Xiaoyue Zhang *Stony Brook NY*[4], Edmund Lee *Stony Brook NY*[5], Amy Rosenbluth *Stony Brook NY*[6], Artem Shmelev *Stony Brook NY*[5], Konstantinos Spaniolas *Stony Brook NY*[7]

Resident[1] Medical Student[2] Associate Professor Stony Brook Medicine[3] Biostatistician[4] Associate Professor[5] Assistant Professor[6] Chair[7]

INTRODUCTION

Healthcare disparities in accessibility have been established in several domains, including bariatric surgery. The impact of age on these limitations has not been explored previously. This study aims to examine the factors affecting access to adolescent bariatric surgery.

METHODS

The SPARCS database was used to identify adolescent (<19 years) and adult patients undergoing bariatric procedures (2007-2022). Analyses included procedure, demographics, and area deprivation index (ADI). ADI scores (1-10) reflected socioeconomic status (low: 1-4, median: 5-7, high: 8-10). Chi-square tests assessed surgery type and demographics, while Poisson log-linear regression models examined linear trends.

RESULTS

3,512 adolescent patients and 210,178 adult patients were identified. Adolescents showed a lower likelihood of Roux-En-Y Gastric Bypass (RYGB) compared to Sleeve Gastrectomy (SG) (58.41% vs. 70.05%, $p<0.0001$), lower male representation (20.88% vs. 28.22%, $p<0.0001$), and lower ADI scores (12.93% vs. 31.12%, $p<0.0001$). Fewer Black adolescents (11.47% vs. 15.54%, $p<0.0001$) and more Hispanic adolescents (29.7% vs. 21.16%) underwent surgery compared to adults (Figure 1). Over time, the proportion of Hispanic patients increased and white patients decreased, with no insurance status changes. Commercial insurance was significantly less prevalent than Medicaid/Medicare in both populations (RR 0.97 (0.96-0.98), $p<0.0001$; RR 0.98(0.98-0.99), $p <0.0001$, respectively).

CONCLUSION

Black and highly disadvantaged adolescent patients are less likely to receive bariatric surgery, highlighting the even greater disparities affecting these groups. Differences between adult and adolescent populations are also demonstrated longitudinally. Over time, more adolescent patients received SG, more male adolescents received surgery, and fewer high ADI adolescents received surgery, highlighting disparities in access.

A166

Gender and racial disparity among MBSAQIP medical directors

Michael Edwards *Ponte Vedra Beach FL*[1], Karina McArthur *Las Cruces NM*[2], Emily Brennan *Jacksonville FL*[1], Nova Szoka *Morgantown WV*[3], Abdelrahman Nimeri *Boston MA*[4], Faiz Shariff *York PA*[5]

Mayo Clinic Florida[1] Columbia University[2] West Virginia University[3] Brigham Women's Hospital[4] Wellspan Bariatric Surgery[5]

Background:

Data on gender or racial/ethnic disparity of the metabolic and bariatric surgery (MBS) workforce and leadership is lacking. Current Association for Metabolic and Bariatric Surgery (ASMBS) membership demographics include 18.1% female, and 44%, 21.8%, 14.6% and 3.8% self-designated White, Asian, Hispanic, and Black members, respectively. While the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) was established in 2012, medical director demographics is unknown.

Objective:

To determine disparities among MBSAQIP directors.

Setting:

MBSAQIP medical directors.

Methods:

A 20-question survey was administered to MBSAQIP directors, capturing information on demographics, practice type and location, bariatric volume, MBSAQIP designation, compensation, and compensation type. Descriptive analysis was by Chi square tests, and independent associations determined by multivariate regression models using R Statistical Software (version 4.2.2).

Results:

Response rate was 30.3% (n=274/904). Most directors were male (81%), ≥ 50−years (59.5%), and White (61%). The oldest directors were most commonly male (96.4%, p=0.007) and White (79.6%, p=0.003). Gender disparity exists across age groups (p0.007) with male predominance in the >60−years age group. Gender disparity also exist across race/ethnicity (p0.046), with Hispanic (2%) and Black (2%) females least represented. Most (65.6%) received compensation, primarily as an annual stipend (55.8%). Hispanic (OR 0.40, CI:0.15−0.97) and female (OR 0.47, CI:0.21−0.98) directors were least likely compensated. Older male directors more commonly received annual stipend compensation (OR 3.22, CI:1.21−9.27), while Black (OR 0.22, CI:0.04−0.85) and female (OR0.29, CI:0.12−0.69) did not.

Conclusion:

Women and Black/Hispanic directors are underrepresented in MBSAQIP leadership, with evidence of gender and racial/ethnic compensation disparity.

A454

Preoperative Metabolic Health Status Alters Microbiota Response to RYGB

Jordan Pitman *Sacramento CA*[1], Trina Knotts *Sacramento CA*[1], William Smith *Sacramento CA*[1], Jean Debédat *Sacramento CA*[1], Victoria Lyo *Sacramento CA*[1], Sean Adams *Sacramento CA*[1], Mohamed Ali *Sacramento CA*[1]
University of California Davis[1]

Background: Higher preoperative severity of metabolic comorbidities can lead to sub-optimal metabolic recovery and decrease the incidence of disease remission following Roux-en-Y gastric bypass (RYGB). Gut microbiota are recognized as mediators of obesity and metabolic dysfunction and are altered by RYGB. We hypothesize that differences in microbiota reflect metabolic health severity and may impact response to RYGB.

Methods: Using a novel scoring system, we objectively scored diabetes mellitus, hypertension, and dyslipidemia in women undergoing RYGB to identify two groups as "metabolically healthy obesity" (MHO) (n=15) or "metabolically unhealthy obesity" (MUHO) (n=15). We then compared the pre- and 2-month post-RYGB comorbidity severity and fecal microbiota patterns between these groups.

Results: Mean age was 42 ± 9.1 years. There was no difference in preoperative BMI between groups (MHO 46.9 vs. MUHO 44.5 kg/m^2, p= 0.39). RYGB significantly reduced BMI in both groups (MHO –5.8; MUHO -6.2 kg/m^2), but postoperative BMI was not different between groups (p=0.67). HbA1c improved postoperatively (MHO-preop 5.8 vs MHO-2M 5.4 ($p<0.001$); MUHO-preop 7.8 vs MUHO-2M 6.6 ($p<0.001$)). Microbiota composition was not different between MHO and MUHO preoperatively. However, RYGB altered 55 species in MHO (ANCOM, $p<0.05$), but no significant compositional changes were detected in MUHO post-RYGB.

Conclusions: The lack of response of the gut microbiome to RYGB in the MUHO group suggests a RYGB-resistant microbiota community in these patients. Further study to understand the associations of microbial communities with metabolism could unmask unique mechanisms that drive disease phenotypes and the metabolic responses to RYGB.

Presidential Grand Rounds VI

Wednesday, June 12th, 2024
3:00 PM – 3:45 PM

A251

Robotic ATLAS (Advanced Training in Laparoscopic Suturing): Development of a Curriculum for Advanced Suturing in the Robotic Platform and Establishment of Proficiency Benchmarks

Nicholas Jonas *Flushing NY*[1], Deanna Plewa *Burlington MA*[2], Amber Chen-Goodspeed *Flushing NY*[1], Madhuri Nagaraj *Dallas TX*[3], Jian Zheng *Queens NY*[1], Heather Ford *Burlington MA*[2], Andrew Nejad *Tucson AZ*[4], Adnan Alseidi *san francisco CA*[5], Dimitrios Stefanidis *Carmel IN*[6], Dmitry Nepomnayshy *Burlington MA*[2], Iman Ghaderi *Tucson AZ*[4], Daniel Scott *Dallas TX*[3]
NewYork Presbyterian Queens[1] Lahey Hospital & Medical Center[2] UT Southwestern Medical Center[3] Banner - UMC Tucson[4] UCSF Medical Center[5] Indiana University Health[6]

Background:
The Advanced Training in Laparoscopic Suturing (ATLAS) curriculum teaches and assesses laparoscopic suturing. This study aimed to modify it for a robotic platform (R-ATLAS) and establish proficiency benchmarks.

Materials and Methods:
The tasks and scoring protocol were maintained according to the laparoscopic model with exception of: a robotic dome box was used with 0 deg camera. A smartphone was used to record and analyze video. Each robotic surgeon performed five consecutive repetitions on all six ATLAS tasks and the performances were video recorded. A single ATLAS video grading expert rated each repetition. After each task, the subjects completed a NASA Task Load Index (TLX) scale (1-126 with higher meaning greater workload) to measure the task workload. Outliers ($\pm$2 standard deviations [SD]) were removed from the data sets and trimmed means and the new SD were used to create proficiency benchmarks.

Results:
Four robotic surgeons completed the study. See Table 1.

Conclusions:
In this study, we demonstrated the feasibility of modifying the ATLAS laparoscopic curriculum for robotic advanced suturing and established performance benchmarks. Based on these results, it will be possible to objectively compare laparoscopic and robotic suturing skill, learning curve, and cognitive load.

A331

Hospital Admissions for Atrial Fibrillation and Atrial Flutter in the Bariatric and Obese population: A Nationwide Case/Control analysis.

Raul Rosenthal *Weston FL*[1], David Romero Funes *Plantation Florida FL*[1], Pauline Aeschbacher *Weston FL*[1], Roberto Valera *Weston FL*[1], David Gutierrez Blanco *Davie FL*[1], Piper Brett *Miramar FL*[1], Emanuele Lo Menzo *Weston FL*[1], Samuel Szomstein *North Miami Beach FL*[1]
Cleveland Clinic Florida[1]

BACKGROUND

In the last decade, hospitalizations for atrial fibrillation (Afib) have increased by 23% in America. Obesity is associated with a 50% increase in the risk of Afib development and higher rates of recurrence after catheter-ablation. We aimed to describe the influence of bariatric surgery on the rate of admissions for Afib/flutter.

METHODS

A retrospective analysis of the National Impatient Sample (NIS) data collected from January 2010 to September 2015 was performed. Patients were classified in two groups: patients with/without primary diagnosis of Afib/flutter. A subgroup-analysis was performed for patients with history of bariatric surgery (HBS) vs. BMI ≥ 35 and no-HBS. The primary and secondary outcome was the rate-of-admissions and length-of-stay (LOS) for Afib/flutter. Multivariate logistic regression was used to assess the outcomes between groups.

RESULTS

From a total of 2,300,845 subjects, 44,314 patients with a primary diagnosis of Afib/flutter. Of those patients, 3.776 (1.28%) had a prior HBS, and 40,538 (2.02%) had a BMI≥35 and no HBS (p<.0001). Patients with BMI≥35 and no HBS were more likely to experience an event of primary diagnosis of atrial fibrillation/flutter for hospitalization (OR=1.71 95%CI = (1.65-1.78), p<0.0001), and more likely to have LOS ≥5 days (OR=1.58 95%CI = (1.44-1.73), p<0.0001).

CONCLUSION

Patients undergoing bariatric surgery had lower hospital-admissions-rate for diagnosis of Afib/flutter, and those admitted had a shorted LOS. Our findings are consistent with current literature describing a significantly better rate-control following weight loss surgery even at a higher Elixhauser Comorbidity Index (ECI).

A030

Identifying the ideal STOP-Bang screening score for obstructive sleep apnea among bariatric surgery patients: resource utilization, healthcare cost, and delays in treatment.

Mia Turbati *Milwaukee WI*[1], Tammy Kindel *Milwaukee WI*[1], Rana Higgins *Milwaukee WI*[1]
Medical College of Wisconsin[1]

Background:
Undiagnosed OSA increases the risk of perioperative complications in bariatric patients. We aimed to determine the ideal STOP-Bang score cutoff that maximizes accurate OSA diagnosis in a cost-effective manner and to evaluate alternative screening tools.

Methods:
Bariatric surgery patients from January 2018 to September 2023 were identified from the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database. Additional variables for patients with a STOP-Bang score of ≥4 were collected from the electronic medical record. The Berlin Score was retrospectively calculated.

Results:
Overall, 167 (34.5%) of 484 patients who underwent bariatric surgery had a STOP-Bang score ≥4. Thirty-five patients (21%) experienced a delay in insurance submission, averaging 41.5 days. The ROC curve for STOP-Bang scores ≥4 had an AUC of 78.5% predicting OSA and 83.7% for OSA requiring treatment, compared to Berlin Scores AUC of 80.7% and 88.6%, respectively. A STOP-Bang score of 4 had a sensitivity of 55.6% and specificity of 36.8%, compared to STOP-Bang score 5 with 29.3% and 66.2%, respectively. Nineteen patients (19.4%) with a score of 4 started OSA treatment versus 15 (28.8%) with a score of 5. A Berlin score of 3 had a sensitivity of 47.5% and specificity of 69.1%, with 30 patients (44.1%) starting OSA treatment.

Conclusion:
The Berlin questionnaire outperforms STOP-Bang in predicting OSA and OSA requiring treatment. Raising the polysomnogram referral score from STOP-Bang ≥4 to ≥5 or utilizing a Berlin score of ≥3, may alleviate unnecessary resource burden, reduce costs, and expedite insurance authorization for bariatric surgery.

A086

The Path Not Taken: Influence of Referral Type and Sociodemographic Factors on Completion of Bariatric Surgery

Catherine Valukas *Chicago IL*[1], Joseph Sanchez *Chicago IL*[1], Dominic Vitello *Chicago IL*[1], Whitney Jones *chicago IL*[1], Joanne Prinz *Chicago IL*[1], Joe Feinglass *Chicago IL*[1], Eric Hungness *Chicago IL*[1], Ezra Teitelbaum *Chicago IL*[1]
Northwestern University[1]

Introduction

The impact of referral type and socioeconomic status on completion of the bariatric surgery process is not well understood. This study aims to 1) describe how sociodemographic characteristics influence referral type and 2) identify predictors of completion of bariatric surgery.

Methods

A retrospective study was performed using data from a multi-hospital healthcare system from 2017-2022. Patients with a primary care physician within the system who met criteria for bariatric surgery were included. The primary outcome was completion of bariatric surgery, the predictor was referral type. Bivariate analysis and multivariable logistic regression were performed.

Results

Of 133,882 overall patients who met criteria for bariatric surgery, 41,387 had physician referrals for bariatric surgery or obesity medicine, 4,702 self-referred and 2,740 underwent surgery. Patients who self-referred were more likely to be Black or Hispanic compared to patients with physician referrals and were also more likely to by insured by Medicaid and live in the lowest quartile of socially vulnerable zip codes (all $p<0.001$). In a multivariable logistic regression, self-referred patients were more likely to undergo surgery (2.22 [1.82,2.73], $p<0.001$). Hispanic patients, while less likely to be referred overall, were more likely to undergo surgery if they were referred (1.29 [1.13, 1.47], $p<0.001$). Patients with Medicare, Medicaid, and who were more socially vulnerable had lower odds of undergoing surgery.

Conclusion

Underserved groups are more likely to self-refer, and less likely to undergo surgery. Those who do self-refer are more likely to proceed to surgery, demonstrating the barrier is one of access not motivation.

Presidential Grand Rounds VII

Thursday, June 13th, 2024
9:30 PM – 10:15 AM

A431

Laparoscopic delivery of a novel enterotomy capture device between self-forming magnetic anastomosis in Roux-en-Y gastric bypass (RYGB) patients for the creation of a side-side jejunal-jejunal anastomosis

Mohit Bhandari *Indore* [1], Winni Mathur *Indore* [2], Manoel Galvao Neto *Orlando FL*[2], Andre Teixeira *Orlando FL*[3]
Sri Aurobindo Medical College & PG Insti[1] Mohak Bariatrics and Robotics[2] Oralando Health Weight Loss Institute[3]

BACKGROUND:
Magnetic anastomosis has demonstrated the ability to reduce anastomosis complications such as leaks and bleeding. We report the procedure feasibility and 30-day results of a new novel surgical technique that eliminates the need to close the enterotomies via conventional methods (Hand-sew/Stapled) after creating the anastomosis and facilitates an immediate lumen opening between two new coupled self-forming magnets (SFM) in RYGB patients.

METHODS:
Prospective non-randomized single-center trial. Surgery included creating a side-to-side jejunal-jejunal anastomosis using an SFM octagonal anastomosis delivered intraluminally through a novel temporary enterotomy control and capture (ECC) device. All devices were deployed and delivered laparoscopically.

RESULTS:
A total of **09** patients were recruited, with a mean age of **48.2 (40-63) years and an** initial BMI of **40.5±6.09 kg/m^{2,} The mean HbA1c was 12.3±0.9.** All procedures were performed laparoscopically. There was no conversion or peri-operative mortality. All ECCs and SFMs were delivered and connected with no delivery malfunctions and completed in an anastomosis creation time of **14** minutes (enterotomy to magnet coupling). All ECC and SFM passed with no retentions or patient self-reported pain. **No** procedure adverse events (AE) occurred during the 30-day follow-up period.

CONCLUSION:
Preliminary and procedure feasibility data of these new surgical techniques suggest the procedures are feasible and safe in RYGB surgery. We demonstrated the potential to improve surgical outcomes and reduce surgical steps and associated operation time while standardizing

the techniques for creating a reproducible anastomosis. Further and longer studies are warranted and have potential utility in other anastomosis in bariatric surgery.

A486

Navigating Complex Surgical Outcomes: Machine Learning Insights into Conversion Cases in Bariatric Surgery

Alexandra Campbell *New Orleans LA*[1], Abdallah Attia *New Orleans LA*[2], Wasef Atiya *New Orleans LA*[1], Michelle Nessen *New Orleans LA*[1], Danielle Tatum *New Orleans LA*[1], John Baker *New Orleans LA*[1], Carlos Galvani *New Orleans LA*[3], Shauna Levy *New Orleans LA*[1]
Tulane University School of Medicine[1] Tulane School of Medicine[2] LSU Health Science Center[3]

Machine learning (ML) offers a novel, comprehensive approach to medical research, particularly in predicting postoperative outcomes in conversion bariatric surgeries. This study hypothesizes that ML can provide enhanced analysis of readmissions, reoperations, and complications within 30 days post-surgery compared to traditional regression analysis.

Utilizing the MBSAQIP dataset from 2020-2022, we analyzed data from 38,220 patients (mean age 48.3 years, SD = 10.6; BMI 40.9 kg/m^2, range 36.3 to 46.3) who underwent conversion bariatric surgeries. We employed Support Vector Machine and Random Forest models for ML analysis, interpreting results using Variable Importance, SHapley Additive exPlanations plots, and Receiver Operator Curve.

Regression analysis revealed significant predictors of adverse outcomes: conversions from gastric bypass surgery notably increased the odds of readmission, reoperation, and overall complications (OR = 2.99, 2.46, 2.45, respectively). Extended operative times (>120 minutes) and therapeutic anticoagulation were also key risk factors. ML models, with an AUC of 61% to 64%, provided a more nuanced understanding by accommodating a wider range of variables affecting outcomes while aligning with regression analysis findings. Both methods identified increased risks in patients with a history of PE/DVT and/or BMI > 50. Interestingly, patients on dialysis showed a protective effect against these adverse outcome predictors.

In conclusion, ML demonstrates significant potential in analyzing complex medical data, offering deeper insights than traditional methods. Future research, incorporating diverse data and novel variables, is crucial for enhancing the accuracy and applicability of ML in predicting surgical outcomes.

A386

Impact of Re-sleeve and Common Channel Length on Weight Loss in Conversion of Sleeve Gastrectomy to Biliopancreatic Diversion with Duodenal Switch

Benjamin Crisp *Raleigh NC*[1], Hannah Garehan *Raleigh NC*[1], Abigail Wrobleski *Raleigh NC*[1], Tricia Burns *Raleigh NC*[1], Afton Carducci *Raleigh NC*[1], Erica McKearney *Raleigh NC*[1], Dustin Bermudez *Raleigh NC*[1], Linda Youngwirth *Raleigh NC*[1], Lindsey Sharp *Raleigh NC*[1], Peter Ng *Raleigh NC*[1]
UNC Rex Health[1]

Introduction:
Conversion from sleeve gastrectomy (VSG) to biliopancreatic diversion with duodenal switch (BPD-DS) is a safe and proven alternative for inadequate weight loss or weight recurrence. We retrospectively evaluated our experience with VSG to BPD-DS over the last 9 years and studied the influence of various clinical and technical elements on weight loss.

Methods:
Four surgeons performed elective conversion of VSG to BPD-DS on 140 patients at a single community institution from 2015 to 2023. Electronic health records were reviewed retrospectively for technique, changes in weight, nutritional status, and postoperative outcomes.

Results:
108 of 140 patients had follow-up data at 1 year or beyond. 83 patients had re-sleeve (RS) performed concurrently with conversion to BPD-DS. At 1 year, the RS group had 26% total weight loss (TWL) and 60% excess weight loss (EWL) compared to 20% TWL and 44% EWL in the no re-sleeve (NRS) group. At last follow-up (2-8 years, avg 5 years), no significant difference in %TWL or %EWL in the RS vs. NRS group was observed. Comparing the use of 100 cm common channel (CC) to 150 cm CC (fixed alimentary limb 300 cm), the 100 cm CC resulted in greater %TWL at 12 months and last follow-up patients ($p<0.01$). Hypoalbuminemia was the only nutritional deficiency affected by CC length.

Conclusions:
Conversion to BPD-DS is an effective option for sleeve revision. RS improves weight loss at one year but shows no long-term difference. Shorter CC leads to greater %TWL.

A216

Artificial Intelligence for Gastric Bypass Video Assessment

Francisco Jacome *Augusta GA*[1], David Mysona *Augusta GA*[2], Juan Prieto *Chapel Hill NC*[3], Jaime Ponce *Chattanooga TN*[4], Lucie Dole *Chapel Hill NC*[3], Jessa Suhner *Augusta GA*[2], Aaron Bolduc *Augusta GA*[2]

Midtown Surgical Specialists[1] Medical College of Georgia, Augusta Univ[2] University of North Carolina Chapel Hill[3] CHI Memorial Hospital Chattanooga[4]

Objective:

Assessment of surgical competency by review of surgical videos is becoming an accepted standard. We sought to design an artificial intellegence (AI) algorithm capable of recognizing the surgical steps of a gastric bypass surgery to aide in video assesment.

Methods:

A total of 53 gastric bypass videos from a single instutition were divided into training (n = 32), testing (n = 17), and validation (n = 4) datasets. Each procedure was separated into 13 steps: angle of His dissection (HIS), perigastric dissection (PD), pouch formation (PC), omental transection (OT), ligament of Treitz identification (LT), counting biliopancreatic limb (BP Limb), gastro-jejunal anastomosis (G-J A), jejunal transection (DSI), leak test (LT), Counting of Roux n Y limb (RNY), jejuno-jejunal anastomosis (J-J), closure mesenteric defect (MD), and flow test and hemostasis (FT). The AI model learned to recognize the steps using the training dataset and evaluated for initial learning in the testing dataset. The validation dataset was used for final model evaluation.

Results:

In the validation dataset, the model had a microaveraged receiver operator charateristic curve value of 0.97 and overall accuracy of 79% for predicting surgical steps. Accuracies of individual surgical steps were 100% HIS, 77% PD, 73% PC, 100% OT, 69% LT, 85% BP Limb, 86% G-J A, 86% DSI, 60% LT, 71% RNY, 79% J-J, 79% MD, and 69% FT.

Conclusion:

AI can recognize the surgical steps of a gastric bypass surgery and may be used in the future to aide in surgical video assesment for training or quality.

A408

Concordance between Pre-operative Endoscopy and Intraoperative Findings of Hiatal Hernia During Bariatric Surgery

Joseph Sanchez *Chicago IL*[1], Catherine Valukas *Chicago IL*[1], Whitney Jones *chicago IL*[1], Dominic Vitello *Chicago IL*[1], Joanne Prinz *Chicago IL*[1], Eric Hungness *Chicago IL*[1], Ezra Teitelbaum *Chicago IL*[1]
Northwestern University[1]

Introduction:
Screening upper endoscopy is often performed prior to bariatric surgery; however, the accuracy of both endoscopic and intraoperative detection of hiatal hernia is uncertain. We examined the concordance between preoperative endoscopy findings and the performance of concurrent hiatal hernia repair during bariatric surgery.

Methods:
This is a multi-center retrospective cohort study from 2017-2023. Adults undergoing sleeve gastrectomy or Roux-en-Y gastric bypass who also had a pre-operative endoscopy were included. Concordance was defined as a match between the presence or absence of hiatal hernia on pre-operative endoscopy and whether a hiatal hernia repair was performed during the patient's bariatric surgery. Univariable and multivariable logistic regression were performed for concordance, with patient and operative factors as covariates.

Results:
1,373 patients matched inclusion criteria. 74.2% of patients had concordance between their pre-operative endoscopy and surgical procedure (12.5% hiatal hernia found on both, 61.8% no hiatal hernia on either), while 25.7% had discordance. Hiatal hernias detected on pre-operative endoscopy were more likely to be repaired when the pre-operative endoscopy was performed by a surgeon compared to gastroenterologists (69.0% vs 56.3%, p=0.01). After controlling for confounders, factors associated with positive concordance between pre-operative endoscopy and surgery included female gender (OR 2.22, $p<0.01$), GERD (OR 3.22, $p<0.01$), and surgeon as endoscopist (4.67, $p<0.01$).

Conclusion:
In this series, discordance between the diagnosis of hiatal hernia at the time of pre-operative endoscopy and surgery was 25%. Factors associated with concordance of endoscopic and intraoperative findings included female gender, history of GERD, and surgeon as endoscopist.

Presidential Grand Rounds VIII

Thursday, June 13th, 2024
12:00 PM- 12:45 PM

A276

Influence of obesity and bariatric surgery on resectable gastrointestinal tumor

Pauline Aeschbacher *Weston FL*[1], David Romero Funes *Plantation Florida FL*[1], Hong Liang *weston FL*[1], Zoe Garoufalia *Weston FL*[1], Peter Rogers *Weston FL*[1], Justin Dourado *Weston FL*[1], Ana Pena *Weston FL*[1], Samuel Szomstein *North Miami Beach FL*[1], Emanuele Lo Menzo *Weston FL*[1], Raul Rosenthal *Weston FL*[1]
Cleveland Clinic Florida[1]

Background:
Evidence highlighted the role of metabolic and bariatric surgery (MBS) in reducing the risks associated with cancer-related mortality and cancer incidence. This study aims to explore the impact of MBS on the risk of resectable gastrointestinal cancers.

Methods:
We conducted an analysis of the National Inpatient Sample data collected from January 2010 to September 2015. Patients with a BMI ≥ 35 kg/m² were compared to those with a history of MBS. Event of resectable gastrointestinal tumors were identified with the diagnosis of gastrointestinal tumor and resection. Multivariate logistic regression was used to assess factors associated with resectable gastrointestinal tumors.

Results:
A total of 1,868,753 admission with a BMI ≥ 35 kg/m² were identified, with 5,933 (0.32%) undergoing gastrointestinal tumor resection (623 foregut, 5,310 colorectal). Additionally, 221,701 admission with a history of MBS were identified, among whom 352 (0.16%) underwent gastrointestinal tumor resection (43 foregut, 309 colorectal). The MBS cohort was younger (p<0.001), predominantly female (80.5% vs. 66.1%, p < 0.001), and exhibited a lower Elixhauser Comorbidity Index score (p<0.001). Multivariate analysis revealed a history of MBS as an protective independent factor for the event gastrointestinal tumor resection (OR:0.56, p<0.001); in the colorectal subgroup (OR:0.69, p<0.001) but not in the foregut subgroup (OR:0.74, p=0.074).

Conclusion:

Compared to the MBS cohort, patients with obesity have a higher incidence of gastrointestinal tumors despite those being resectable. This effect appears less pronounced in foregut tumors. Further investigation is warranted, considering factors such as obesity duration, timing of cancer occurrence post-MBS and weight-loss/regain.

A391

Comparative Analysis of SADI-S with RYGB and OAGB as Primary and Revisional Bariatric Surgery Following Sleeve Gastrectomy: A Meta-Analysis

Abdul-Rahman Diab *Ocala FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[2], Joseph Sujka *Tampa FL*[2], Christopher DuCoin *Tampa FL*[2]
University of Central Florida / HCA[1] University of South Florida[2]

Introduction: Single Anastomosis Duodeno-Ileostomy with Sleeve Gastrectomy (SADI-S) is a relatively recent bariatric and metabolic surgical procedure. However, limited comparative data exists regarding its efficacy compared to Roux-en-Y Gastric Bypass (RYGB) and One Anastomosis Gastric Bypass (OAGB) as both primary and revisional bariatric surgeries subsequent to sleeve gastrectomy (SG).

Methods: A systematic literature review was conducted following PRISMA guidelines. The random effects model was employed, utilizing odds ratio for dichotomous data and mean difference for continuous data as effect size metrics.

Results:
Compared to RYGB: SADI-S showed significantly higher Total Weight Loss Percentage (TWL%) at 12, 24, 36, and 60 months. The incidence of internal hernias and vitamin B12 deficiency was significantly lower in the SADI-S group. No significant differences were observed in Length of Stay (LOS), readmissions, vitamin D levels, leaks, bleeding, or reoperations.
Compared to OAGB: SADI-S demonstrated significantly higher TWL% and Excess Weight Loss Percentage (EWL%) at 12 and 24 months, along with a longer LOS. The incidence of bile reflux was significantly lower in the SADI-S group. No significant differences were observed in steatorrhea, leaks, or marginal and anastomotic ulcers.

Conclusions:
SADI-S exhibits a superior weight loss profile compared to RYGB and OAGB. Furthermore, compared to RYGB, SADI-S may reduce the incidence of internal hernias and vitamin B12 deficiency. However, compared to OAGB, SADI-S might decrease bile reflux while increasing LOS.

A234

Association of preoperative frailty score with weight loss response among patients undergoing metabolic and bariatric surgery

Amir Ebadinejad *Hartford CT*[1], Juan Cobar *Hartford CT*[1], Dale Bond *Hartford CT*[1], Yin Wu [1], Connie Santana *Glastonbury CT*[1], Anna Schwartz *Hartford CT*[1], Darren Tishler *Glastonbury CT*[1], Pavlos Papasavas *Hartford CT*[1]
Hartford Hospital[1]

Background: Preoperative patient frailty (i.e., aging-related functional decline across multiple physiological systems) has been linked to greater perioperative complications following metabolic and bariatric surgery (MBS). This study evaluated whether frailty is also adversely related to weight loss response after MBS.

Objective: Evaluate whether preoperative patient frailty predicts 1-year weight loss non-response after primary sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB).

Methods: The Bariatric Frailty Score (BFS), an adapted version of the Canadian Study of Health and Aging-Frailty Index based on 10 variables from MBSAQIP, assessed degree of frailty based on number of deficits (i.e., 0-10). Non-response to MBS was defined as <20% and <30% TWL at 1-year following SG and RYGB, respectively. Multiple linear and logistic regression models evaluated associations of preoperative BFS score with %TWL and %TWL response thresholds, respectively.

Results: Participants (n=1574; 78.9% female, 28.3% non-white race, mean age 45±12yr; 67% SG) had a BFS of 1.6±1.3 (range=0-7). Overall, higher BFS related to lower %TWL after SG and RYGB (ß=-0.11, $p<0.001$). Compared to participants with 1 or no deficits (BFS score ≤1; n=785, 49.9%), those with multiple deficits (BFS score ≥2; n=789, 50.1%) had higher odds of being a weight loss non-responder after SG (OR=0.53, 95%CI: 0.39–0.71, $p<.001$) and RYGB (OR=0.46, 95%CI: 0.30-0.69, $p<.001$).

Conclusion: Increasing preoperative frailty is associated with 47%-54% greater risk of weight loss nonresponse after MBS. Findings point to the need for increased frailty screening and appropriate adjunctive interventions (i.e., exercise, nutrition, and cognitive) to improve frailty status and MBS outcomes.

A127

Weight Loss and Health Status 10 Years after Adjustable Gastric Banding in Adolescents: A Follow-Up Report from the Teen-Longitudinal Assessment of Bariatric Surgery (Teen-LABS) Consortium

Mark Fleming *Charlottesville VA*[1], Todd Jenkins *Cincinnati OH*[2], Thomas Inge *Chicago IL*[3], Richard Boles *Aurora CO*[4], Anita Courcoulas *Pittsburgh PA*[5], Marc Michalsky *Columbus OH*[6]
University of Virginia Health[1] Cincinnati Children's Hospital MC[2] Ann & Robert H.Lurie Children's Hospital[3] Colorado Children's Hospital[4] University of Pittsburgh Medical Center[5] Nationwide Children's Hospital[6]

Purpose

Metabolic and bariatric surgery is a safe and effective treatment strategy for severe childhood obesity, affecting 10% of U.S. adolescents. This prospective observational study addresses knowledge gaps related to changes in weight, cardiometabolic risk, and weight-related quality of life (WRQOL) in adolescents 10 years after laparoscopic adjustable gastric band (LAGB) insertion.

Methods

Teen-Longitudinal Assessment of Bariatric Surgery (Teen-LABS) collected anthropometric, micronutrient, cardiometabolic risk and WRQOL data on 274 adolescents, of which 14 participants underwent LAGB insertion between 2007-2012. Descriptive analyses compared outcomes at baseline and 10 years.

Results

Participants were mostly female (86%), white (71%), with a median age of 18.5 years and preoperative median body mass index (BMI) of 49 kg/m^2. Baseline prevalence of type 2 diabetes, hypertension, and dyslipidemia among initial 14 LAGB participants were 1/14 (7%), 8/14 (57%), and 8/13 (62%), respectively, compared to 10-year prevalence of 1/8 (13%), 4/10 (40%), and 3/9 (33%), respectively. Two participants underwent LAGB removal (Years 2 and 3); two others converted to RYGB (Years 2 and 6). Following initial BMI reduction (-10%) at Year 1 (Figure), 10-year median BMI for the total cohort was 48 kg/m^2 compared to 51 kg/m^2 (5% versus 9% increase) for 10 participants who retained their LAGB throughout the study. Micronutrient abnormalities and WRQOL remained similar between baseline and 10 years.

Conclusion

Long-term follow-up of this cohort reveals that LAGB has minimal impact on change in BMI, cardiometabolic risk factors, and WRQOL among adolescents. These results confirm the limited efficacy of LAGB in the pediatric population.

A055

The effect of bariatric metabolic surgery on reduction of the 10-year risk of major adverse cardiovascular events: analysis of one-anastomosis gastric bypass (OAGB) and duodenojejunal bypass with sleeve gastrectomy (DJB-SG) before and 3 years after surgery

Hsin-Mei Pan *Taipei City* [1], Kuo-Feng Hsu *TAIPEI* [1], Wei-Jei Lee *Taoyuan* [2], Kong-Han Ser *Taoyuan city* [3]

Tri-Service General Hospital, Taiwan[1] China Medical University Hospital,Taiwan[2] Ten-Chan General Hospital, Taiwan[3]

Bariatric metabolic surgery (BMS), including procedures like one-anastomosis gastric bypass (OAGB) and duodenal-jejunal bypass with sleeve gastrectomy (DJB-SG), has proven effective in achieving lasting weight loss and improving conditions associated with obesity. Despite its recognized success, there's a shortage of long-term follow-up data on OAGB and DJB-SG, prompting the need for further investigation. A study focused on 224 Taiwanese adult patients who underwent these procedures between 2011 and 2017. The primary aim was to evaluate the safety, effectiveness, and long-term impact of OAGB and DJB-SG on weight loss and type 2 diabetes (T2D) remission up to three years post-surgery. The secondary objective involved assessing changes in the 10-year risk of major adverse cardiovascular events (MACEs). Both groups exhibited significant improvements in BMI, T2D, hypertension, and dyslipidemia two years post-surgery, with some rebound in the third year. Risk predictions using Taiwan MACE and China-PAR models demonstrated substantial reductions in stroke and MACEs risks for both groups. Notably, stroke risk decreased from 54.0% to 8.5% in OAGB and 21.3% to 10.6% in DJB-SG, while MACEs risk dropped from 27.0% to 12.4% in OAGB and 21.2% to 12.0% in DJB-SG. In summary, both OAGB and DJB-SG resulted in sustained improvements in weight reduction, obesity-related comorbidities, and a notable reduction in the 10-year and lifetime risk of ASCVD, stroke, and MACEs three years after surgery.

Presidential Grand Rounds IX

Thursday, June 13th, 2024
12:45 PM - 1:30 PM

A288

Evaluating The Impact of Immunosuppressive Medication Discontinuation on Short-Term Complications Following Sleeve Gastrectomy

Kamal Abi Mosleh *Rochester MN*[1], Katarzyna Bartosiak *Warsaw* [1], Noura Jawhar *Rochester MN*[1], Karl Hage *Rochester MN*[1], Ty Diwan *Rochester MN*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic, Rochester[1]

Introduction:
Many patients undergoing sleeve gastrectomy (SG) have medical conditions necessitating chronic immunosuppressive therapy (CIT). CIT use has been associated with increased surgical complications, including infections, leaks, and impaired wound healing. However, there is limited data on whether brief interruption of CIT before and after surgery mitigates these risks. We aim to elucidate the differences in short-term outcomes following SG in patients who interrupted CIT medications compared to those who maintained them.

Methods:
A retrospective review of patients undergoing primary SG with preoperative BMI≥35kg/m^2 while on CIT. Patients were divided into 2 groups depending on whether CIT was temporarily discontinued before and after the procedure. Patient baseline characteristics, operative characteristics, and postoperative outcomes up to 6-months were analyzed. Patients with simultaneous transplant were excluded.

Results:
75 patients with mean age 48.1±10.8 years and BMI of 42.6±8.8 kg/m^2 were included. Participants who discontinued CIT (n=20,26.7%) were comparable to those who maintained it (n=55,73.3%). Primary indications for CIT were renal transplantation (n=39,52%), rheumatoid arthritis (n=11,14.7%), and liver transplantation (n=9,12%). Patients who maintained CIT had significantly higher readmission (21.8% vs. 0%,p=0.029) and early complication rates (27.3% vs. 5%,p=0.045). Early complications in the group that maintained therapy included bleeding(n=4), urinary infections(n=2) and wound infections(n=2). Late complications included staple line leaks(n=2) and wound seroma(n=1).

Conclusion:
Patients on CIT who refrain from interrupting therapy exhibit significantly higher rates of readmission and 30-day complications compared to those who interrupt. It is advisable to discontinue CIT therapy briefly before and after surgery, whenever possible, to minimize risks.

A399

Duodenal-ileal self-forming magnetic anastomosis in Patients with Inadequate Weight Loss or Weight Regain following Sleeve Gastrectomy: Procedure Feasibility & 30-day Outcomes

Juan Eduardo Contreras *Santiago* [1], Pablo Marin *Santiago* [1], Agustin Guerra Catalano *Santiago* [1], Maria Eugenia Mellafe *Santiago de Chile* [1], Ingrid Darvich *Santiago de Chile* [1]
Clinica Colonial Santiago Chile[1]

BACKGROUND:
Magnetic anastomosis has the potential to reduce anastomosis complications such as leaks and bleeding, as well as reduce complex procedure steps and time to create a safe anastomosis. We report the procedure feasibility and 30-day results of a new surgical technique and new self-forming nitinol magnetic anastomosis procedure (SNAP-PS) and delivery devices on post-sleeve gastrectomy patients.

METHODS:
Prospective non-randomized single-center trial. Surgery consisted of creating a side-to-side duodenal-ileal anastomosis 300cm from the IC valve using a new self-forming magnetic (SFM) octagonal anastomosis. The proximal SFM was deployed through the endoscope, and the distal SFM through a 5mm laparoscopic trocar.

RESULTS:
A total of 3 patients were recruited, with a mean age of 36.3 25-42) years, sex-ratio (100 %F) of 100 %, and initial BMI of 41.0 ±1.4 kg/m^2. All procedures were performed using a combination of endoscopy and laparoscopy. There was no conversion or peri-operative mortality. All SFMs were delivered and connected with no delivery malfunctions and completed in an anastomosis creation time on average of 30.6 minutes (enterotomy to magnet coupling). 0 procedure adverse events (AE) occurred, and 0 AD occurred during the 30-day follow-up period. All patients tolerated the surgery and were discharged within 24 Hours.

CONCLUSION:
Preliminary and procedural feasibility data for these new devices suggest that SNAP-PS is feasible and safe. Based on prior studies, it provides a minimally invasive surgical option for patients needing additional weight loss and improved comorbidities. Additional follow-up is required.

A392

A Comparison of RYGB with Long Biliopancreatic Limb (BPL) Versus Long Alimentary Limb (AL) Groups of Equal/Near-Equal Total Bypass Lengths (Combined BPL and AL Lengths): It's Not Just About the Millimeters - A Meta-Analysis.

Abdul-Rahman Diab *Ocala FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[2], Joseph Sujka *Tampa FL*[2], Christopher DuCoin *Tampa FL*[2]
University of Central Florida / HCA[1] University of South Florida[2]

Introduction:

It's well established that extending either the biliopancreatic limb (BPL), the alimentary limb (AL), or both, to increase the total bypass length (TBL) results in amplified weight loss and nutritional deficiencies due to heightened malabsorptive effects. However, a key question remains: does the significance of each limb's contribution to TBL affect outcomes? To explore this, we collated studies comparing long BPL and long AL while maintaining similar or near-equal TBL.

Methods:

Following the PRISMA guidelines, we conducted a systematic literature review. The random effects model was employed, utilizing odds ratios for dichotomous data and mean differences for continuous data as effect size metrics.

Results:

At 6, 9, 12, 24, 36, and 48 months, TWL% and EWL% were significantly higher in the long BPL group. Incidences of leaks, abscesses, dumping, and reoperations were insignificantly lower in the long BPL group. Incidences of abnormally low ferritin, diarrhea, internal hernia, and bleeding were insignificantly higher in the long BPL group. No differences were observed in incidences of anemia and vitamin D deficiency between the groups.

Conclusions:

Weight loss after RYGB may not solely depend on the restrictive effect of the gastric pouch or the malabsorptive effect of bypassed intestines but could potentially involve alterations in entero-pancreatic hormones (GLP, GIP, PYY, etc), possibly influenced by increasing the BPL limb as indicated by basic science research. Further studies comparing comorbidity resolution are necessary. The impact of BPL length in RYGB on clinical and metabolic outcomes remains an intriguing topic for clinicians and basic scientists.

A050

Multi-Modal Anti-Obesity Medication May Yield Superior Preoperative Weight Loss in High Risk Patients with BMI ≥70

Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[1], Iryna Popiv *Baton Rouge LA*[1], Kyle LaPenna *New Orleans LA*[2], Devan Lenhart *New Orleans LA*[1], Michael Cook *New Orleans LA*[2], Vance Albaugh *Baton Rouge LA*[1], Philip Schauer *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

INTRODUCTION:
Preparing the high BMI (≥70) patient for metabolic surgery (MS) is an increasingly frequent clinical challenge. Given recent improvements in obesity medical treatment, we aimed to characterize the success of preoperative weight-loss therapy. We hypothesize a multi-modal approach to anti-obesity medication (AOM) therapy will provide improved pre-operative weight-loss compared to both GLP-1 monotherapy (mono-GLP-1) and non-pharmacologic medically supervised weight-loss (NP-MSWL).

METHODS:
We identified all patients with BMI ≥70 who sought care at our institution and excluded those who failed to complete ≥1 follow-up visit. A total of 113 patients were analyzed. Biometric values, pharmacologic therapies, and length of treatment were extracted for analysis. Kruskal-Wallis and Dunn's tests were utilized for statistical analysis.

RESULTS:
Length of treatment ranged from 2.7-364 weeks with an average time of 72.9 days. Mean percent total body weight-loss (%TBWL) for NP-MSWL, mono-GLP-1, and multi-modal AOM (mmAOM), were 5.95%, 8.14%, 13.1%, and respectively (p=0.005) (Figure 1.a). Mean absolute BMI reduction for NP-MSWL, mono-GLP-1, and mmAOM were 7.36, 7.51, and 9.61, respectively (p=0.09) (Figure 1.a). When broken into quartile length of therapy, both %TBWL (Figure 1.b) and absolute BMI reduction were highest for those treated for 23-51 weeks with mmAOM therapy.

CONCLUSION(S):
GLP-1 agonist pharmacotherapy is more potent for pre-operative weight-loss than medically supervised weight-loss alone in patients with BMI ≥ 70. Combining other AOM's further increases preoperative weight-loss. AOM usage beyond 51 weeks does not yield additional preoperative weight-loss. Larger, prospective studies are needed to confirm these results and identify the best methods for multimodal treatment.

A317

Hess versus Scopinaro: Total Alimentary (TAL) to Total Small Bowel Length (TBL) Ratio (TAL/TBL) is the Most Significant Determinant of Superior Weight Loss in Fixed Limb Length Duodenal Switch.

Lindsey Sharp *Raleigh NC*[1], Peter Ng *Raleigh NC*[2], Linda Youngwirth *Raleigh NC*[2], Dustin Bermudez *Raleigh NC*[2], Abigail Wrobleski *Raleigh NC*[2], Benjamin Crisp *Raleigh NC*[2], Hannah Garehan *Raleigh NC*[2]

UNC/Rex Healthcare[1] UNC/Rex Hospital[2]

Objective:

Study the clinical impact of TBL variability on fixed limb duodenal switch (DS).

Methods:

From Sept 2018 through April 2019, a single surgeon measured the TBL of 45 patients who received a DS with a total alimentary limb (TAL) of 300 cm and common channel length (CC) of 150 cm. The patients were divided into quartiles based on the ratio of TAL/TBL, representing the proportion of small bowel used for absorption. Analyses with regards to weight loss and nutritional labs were performed to compare the 1st quartile (1stQ) (longest TBL) and 4th quartile (4thQ) (shortest TBL).

Results:

The average TBL was 668 cm (range: 530-900 cm). The average TAL/TBL ratio differed between 1stQ (38%, range 33%-41%) and 4thQ (54%, range 50%-57%) ($p<0.0001$). EWL was similar between quartiles at 1 year postop (EWL: 1stQ=87%, 4thQ=74%, $p=0.13$), however differed at 2, 3, and 4 years, favoring lower TAL/TBL (EWL 4 years: 1stQ=86% vs 4thQ=49%, $p=0.0061$).

There was no difference in average albumin, Vit A, or PTH levels between quartiles at years 1-4. Average Vit D levels were lower in 4thQ at years 2 and 3 postop. In multivariate analysis, TAL/TBL was the only significant predictor of EWL.

Conclusions:

A lower TAL/TBL ratio is the most significant factor influencing better weight loss outcomes after DS with a fixed TAL and CC. Nutritional outcomes compared favorably between groups. Adjusting TAL and CC lengths should be considered in the extremes of TBL, both short and long.

E-Posters

Tuesday, June 11th, 2024 - Thursday, June 13th, 2024

A003

Robotic Assisted Bariatric Surgery Compared to Standard Laparoscopy- Utilization Trends, Outcomes, and Operative Times: MBSAQIP Data from 2018-2021

William Hope *Lancaster PA*[1], William Gourash *PITTSBURGH PA*[2], Kristine Ruppert *pgh PA*[3], Ramesh Ramanathan *Pittsburgh PA*[2]
Lancaster General Hospital[1] UPMC Magee Women's Hospital[2] University of Pittsburgh[3]

Background:
A thorough evaluation of the utilization and outcomes of robotic assisted bariatric surgery (RA-BS) is needed.

Objectives:
To investigate the current utilization trends and outcomes of robotic assisted (RA-) versus laparoscopic primary bariatric surgery

Setting:
National Database

Methods:
RA- and laparoscopic primary Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy (SG) were compared using the 2018-2021 MBSAQIP participant user data files. A total of 678,357 patients were propensity matched 1:1 based on 12 variables. 198,630 patients were included in the study group: 145,858 matched to SG and 52,772 to RYGB.

Results:
From 2018 to 2021, there was an increase in the percentage of RA-BS procedures from 10% to 25%. RA-RYGB had significantly lower rates of superficial infection (0.37% vs. 0.8%), post-operative transfusion (0.75% vs. 1.1%), and gastrointestinal bleed (0.6% vs. 0.9%) compared to L-RYGB. L-SG had significantly lower rates of superficial infection (0.22% vs. 0.29%), organ space infection (0.18% vs. 0.24%), post-operative transfusion (0.46% vs. 0.68%), gastrointestinal bleed (0.19% vs. 0.26), and reoperation (0.63% vs. 0.74%) compared to RA-SG. There were statistically significant decreases in operative time, length of stay, and 30-day outcomes of reoperation, intervention, and readmission for both laparoscopic and RA-BS from 2018 to 2021.

Conclusion:
There was a progressive increase in the number and percentage of RA procedures. RA-RYGB was associated with lower complication rates of infection and bleeding, while RA-SG was associated with higher rates of infection, bleeding, and reoperation. Overall, robotic approach is a safe and viable technique for bariatric surgery.

A005

Parahiatal hernia and Sleeve Gastrectomy

Benjamin Clapp *El Paso TX*[1], Shahrukh Chaudhry *El Paso TX*[1], Edgar Escalante Alderete *El Paso TX*[1], Omar Ghanem *Rochester MN*[2]
Texas Tech HSC Paul Foster School of Med[1] Mayo Clinic, Rochester[2]

This video demonstrates the diagnosis and treatment of a para hiatal hernia discovered at the time of sleeve gastrectomy. The patient is a 42 year old female undergoing a sleeve gastrectomy. She had a previous endoscopy that showed a small hiatal hernia. She had mild GERD. She was found intraoperatively ot have a para hiatal defect. The video demonstrates the technique of repair as well as mesh reinforcement.

A006

Validation of the MBSC Outcomes Calculator in a Hispanic Population

Benjamin Clapp *El Paso TX*[1], Shahrukh Chaudhry *El Paso TX*[1], Omar Ghanem *Rochester MN*[2], Brian Davis *El Paso TX*[1]
Texas Tech HSC Paul Foster School of Med[1] Mayo Clinic, Rochester[2]

Background:
The Michigan Bariatric Surgery Collaborative (MBSC) has developed an app that calculates outcomes, to include predicted weight loss and venous thromboembolism rates. The app is called Weigh the Odds. We sought to determine the validity of the MBSC outcomes calculator in a Hispanic population.

Methods:
A community practice with a large percentage of Hispanic patients was used to validate the MBSC calculator. The correlation coefficient was calculated. Chi square test was used and to compare quantitative variables between the operation types, t-test was used. Lin's concordance correlation along with Bland-Altman level of agreement was estimated between actual and expected weights at one year.

Results:
276 patients met the eligibility criteria and were included in the study. The average body mass index (BMI) at the time of initial bariatric surgery was 45.2 (SD, 6.68). 177 patients underwent sleeve gastrectomy (SG), and 99 patients underwent Roux-en-Y gastric bypass (RYGB) as their initial bariatric operation. The mean actual weight at one year for the entire cohort was 90.8 kg (SD, 19.6), while the mean expected weight was 89.2 kg (SD, 16.9) leading do a mean difference of 1.6 kg. The concordance correlation coefficient of 0.80 (95% CI: 0.76-0.84, $p < 0.001$) demonstrates a strong agreement between actual and expected weights at one year. There was a lower correlation coefficient for RYGB patients.

Conclusion:
The concordance correlation coefficient demonstrated a strong agreement between actual and expected weights at one year. These findings validate the MBSC outcomes calculator in a Hispanic population.

A008

Management of Ventriculoperitoneal Shunts in Laparoscopic Metabolic/Bariatric Surgery

Kevin Sigley *Rochester NY*[1], William O'Malley *Rochester NY*[1], Marie Jacobs *Rochester NY*[1], Joseph Johnson *Rochester NY*[1]
University of Rochester[1]

Background:
Morbid obesity is associated with various comorbid conditions, including idiopathic intracranial hypertension (IIH). IIH and other intracranial conditions can be treated with ventriculoperitoneal (VP) shunting. Patients with obesity and VP shunts may present for metabolic/bariatric surgery. Intraoperatively, VP shunts can be left in place or temporarily "externalized," by bringing the shunt out of the abdomen to prevent shunt infection. Previously, shunt externalization was recommended during laparoscopic metabolic/bariatric surgery.

Objective:
We examined outcomes of patients at our institution undergoing laparoscopic metabolic/bariatric surgery without VP shunt externalization.

Setting:
Academic university hospital

Methods:
Using procedure and diagnosis codes in an electronic medical record search, patients who underwent a laparoscopic metabolic/bariatric operation with a VP shunt in place between 2000 and 2023 were reviewed.

Results:
We identified 10 patients who met inclusion criteria. Five patients underwent laparoscopic sleeve gastrectomy (LSG), and 5 patients underwent laparoscopic Roux-en-Y gastric bypass (LRYGB). Excess weight loss (EWL%) averaged 35.09% at six months, and 46.00% at 12 months. There were no intraoperative complications. There was one case of a postoperative infected hematoma which required shunt externalization during source control. One patient underwent shunt ligation 17 months after LRYGB (by which time she achieved 99.34% EWL) for headaches likely related to intracranial hypotension. One patient has not completed follow-up yet.

Discussion:
Our results suggest it is safe to leave VP shunts in place during laparoscopic metabolic/bariatric surgery, and that the procedures result in effective weight loss in this patient population.

A010

Total Intravenous Anesthesia (TIVA) versus Volatile Anesthesia in Patients with Class III Obesity

Naofal da SIlva *Miami FL*[1], Faiza Kamal *Edmonton* [2], Gabriela Briceno *Sunnyvale CA*[3], Nusrath Iyoob *Vinnytsia NJ*[4], Erica Archivolti [5], Samantha Redden Chirinos *Houston TX*[3], Ajay Maharan [6], Victor Arruarana [7], Ernesto Calderon-Martinez *Ciudad de Mexico* [8]

Baptist Hospital of Miami[1] University of Nottingham, UK[2] Universidad de Oriente, Venezuela[3] National Pirogov Memorial Medical Univ.[4] Università degli Studi di Salerno, Italy[5] Tribhuvan University, Nepal[6] Brookdale University Hospital[7] Universidad Nacional Autonoma de Mexico[8]

Study Objective:

The anesthetic management of patients with class III obesity presents unique challenges due to the increased prevalence of comorbidities. There is no clear consensus in the scientific community regarding the superior choice of general anesthesia technique used in patients with class III obesity. This systematic review compared the outcomes of using total intravenous anesthesia (TIVA) and volatile anesthesia in patients with a BMI ≥ 40 kg/m² undergoing elective surgery.

Methods:

Studies from PubMed/MEDLINE, Cochrane, Scopus and other databases were systematically reviewed. The outcomes of interest included intra-operative vital signs, emergence from anesthesia, incidence of post-operative nausea and vomiting (PONV), length of stay in the Post-Anesthesia Care Unit (PACU), rates and reasons for admission to the Intensive Care Unit.

Results*:*

Three articles met the inclusion criteria, encompassing 320 individuals. All three studies were prospective double-blind RCTs. Propofol was the TIVA agent in all studies, while desflurane or sevoflurane were used for volatile anesthesia. TIVA was associated with significantly lower heart rates compared to volatile anesthesia in one study. Intraoperative mean arterial pressure varied across studies. Time to emerge from anesthesia, PACU length of stay, and postoperative analgesia requirements were shorter with TIVA. Incidence of PONV was also consistently lower with TIVA.

Conclusion*:*

In patients with class III obesity, TIVA shows promise in enhancing postoperative recovery, as evidenced by lower rates of PONV, shorter PACU stays, and reduced postoperative analgesia requirements. While further research is needed to validate these findings, this systematic review fills an important gap in current literature.

A012

Bariatric Surgery Risk Stratification: Development of an easy-to-use tool for predicting morbidity and length of stay.

Matthew Edwards *Knoxville TN*[1], Matthew Madion *West Bloomfield MI*[2], Jacob Balmer *Knoxville TN*[1], Eric Heidel [1], Kyle Kleppe *Knoxville TN*[1]
University of Tennessee Medical Center[1] Henry Ford Health[2]

Introduction:
Stratification methods are helpful in identifying patients that may need further pre-operative considerations. Given the drastic improvement in morbidity and mortality following bariatric surgery in the past two decades, an updated assessment of the data is needed.

Materials and Methods:
The MBSAQIP dataset was queried years 2019-2021. Fourteen risk factors were examined, and the primary outcome examined was a composite morbidity outcome that included MI, reoperation, leak, death, and others within 30 days. For each patient, risk factors were tabulated and the complication rate for each was examined. The odds ratio with 95% CI of each category compared against the no risk factor category was calculated.

Results:
There were n=586,392 patients. The overall composite morbidity outcome rate was 2.3%. With each additional risk factor, the composite morbidity rate increased in a progressive fashion from 1.3% with zero risk factors to 6.1% with five risk factors. LOS also rose with increased number of risk factors. ESRD had the highest odds ratio for complication (OR 3.93, 95% CI 3.32-4.66). When grouping patients into three categories (Low risk: 0-1 risk factor, moderate risk: 2-3 risk factors, high risk: 4 or more risk factors), the complication rates were 1.62%, 3.05%, and 5.46%, respectively ($p < 0.05$).

Conclusions:
Each additional risk factor a bariatric candidate possesses increases their risk of morbidity and increases LOS. Grouping patients into low, moderate, and high risk categories will be beneficial for pre-operative stratification and risk assessment for outpatient surgery candidates.

A016

Incidental Gastrointestinal Stromal Tumor Resection during Sleeve Gastrectomy

Kevin Sigley *Rochester NY*[1], Michael M Franklin *Albuquerque NM*[2], William O'Malley *Rochester NY*[1]
University of Rochester[1] University of New Mexico[2]

Laparoscopic sleeve gastrectomy is (LSG) is currently the most common metabolic/bariatric surgery performed in the United States, and results in durable weight loss in the majority of patients, as well as pathology examination of many partially resected stomachs. Case reports and case series exist of gastrointestinal stromal tumors (GISTs) being found incidentally in sleeve specimens by pathology. GIST is a rare gastrointestinal tumor which originates from the interstitial cells of Cajal, and is most commonly found in the stomach, followed by small bowel, then colon and rectum. In this paper, we report a case of incidental discovery of a GIST in a resected gastric sleeve specimen, show intraoperative photos and photomicrographs of the tumor, and discuss staging and postoperative management of incidentally discovered GISTs after sleeve gastrectomy.

A017

Case of Plummer-Vinson Syndrome in the Setting of Remote History of Roux-en-Y Gastric Bypass

Kevin Sigley *Rochester NY*[1], Michael M Franklin *Albuquerque NM*[2], William O'Malley *Rochester NY*[1]
University of Rochester[1] University of New Mexico[2]

Laparoscopic Roux-en-Y gastric bypass is the second most common metabolic/bariatric surgery performed in the United States. Nutritional deficiencies are common adverse effects of the surgery, and iron deficiency anemia is especially common, occurring in up to 16% of patients in a recent meta-analysis. Prolonged iron deficiency anemia raises the possibility of development of Plummer-Vinson Syndrome (known as Paterson-Brown-Kelly syndrome in the United Kingdom), characterized by the triad of iron deficiency anemia, dysphagia and esophageal webs. In this paper we present a report of this phenomenon arising in the setting of remote history of gastric bypass, review characteristic hematopathology and laboratory findings, and discuss the pathophysiology and treatment considerations.

A018

Comparative Analysis of Robotic-Assisted Versus Laparoscopic Roux-en-Y Gastric Bypass: A Retrospective Cohort Study

Prajakta Waghmare *Sunnyvale CA*[1], I-Fan Shih *Sunnyvale CA*[1], Matthew Brengman *Richmond VA*[2]

Intuitive Surgical Inc.[1] Advanced Surgical Partners of Virginia[2]

Introduction:

Robotic-assisted surgery (RAS) has emerged as an alternative to laparoscopic surgery (LAP) for Roux-en-Y Gastric Bypass (RYGB), offering several advantages. This study aimed to compare the perioperative outcomes of RAS and LAP for RYGB.

Methods:

A retrospective cohort study was conducted using PINC AI™ (Premier healthcare) hospital discharge database from 2020–21. The study included adult patients with BMI ≥30 kg/m^2, undergoing elective RYGB surgery done either through RAS or LAP in an inpatient setting. Patients with revisional procedures were excluded. RAS and LAP cohorts were matched through 1:1 propensity scoring with covariates including patient demographics, comorbidities, hospital, and physician characteristics.

Results:

The final sample included 5,326 patients in each cohort. RAS–RYGB patients had lower bleeding related complications 30–days post–surgery (0.2% vs 0.3%), conversions to open surgery (0.4% vs 0.9%), admissions to the Intensive Care Unit (ICU) (1.4% vs 2.2%), shorter length of stay (median 1 vs 2 days), fewer post–operative visits to the hospital at 90–days post–surgery (33% vs 35%) compared to LAP–RYGB ($p<0.05$). RAS–RYGB patients had higher rates of post–operative 30–days bowel obstruction and operating time. However, high–volume surgeons (n=316, conducting ≥125 procedures annually) performing RAS– and LAP–RYGB had similar post–operative bowel obstructions and lower operating times.

Discussion:

Patients who underwent RAS-RYGB demonstrated better peri-operative outcomes in terms of bleeding related complications post-surgery, conversions, and ICU admissions than LAP-RYGB. When performed by experienced surgeons, RAS-RYGB demonstrates lower operating times and equivalent post-operative bowel obstructions as LAP-RYGB.

A021

Impact of COVID-19 Pandemic on Adolescents Undergoing Metabolic Bariatric Surgery

Nicholas Schmoke *New York NY*[1], Christopher Nemeh *New York NY*[1], Robert Crum *New York NY*[1], Emily McManus *New York NY*[1], Alexey Abramov *New York NY*[1], Chunhui Wang *Closter NJ*[1], Paul Kurlansky *New York NY*[1], Jeffrey Zitsman *New York NY*[1]
Columbia University[1]

Backgrounds:
The COVID-19 pandemic resulted in immediate and long-term consequences for patients and healthcare systems worldwide. We examined the impact of the pandemic on adolescents undergoing metabolic bariatric surgery.

Methods:
A single-institution retrospective review evaluated adolescents who underwent laparoscopic sleeve gastrectomy between 2010 and 2023, forming two cohorts: pre-COVID (before March 1, 2019) and COVID (after March 1, 2020). Chi-square and Kruskal-Wallis tests were used to compare categorical and continuous variables. Absolute and percent weight loss and body mass index (BMI) change at 6- and 12-months post-surgery were compared between cohorts. Multivariable linear regression models were constructed to estimate the association between weight loss, adjusting for age, gender, ethnicity, and baseline BMI.

Results:
358 patients were included: 238 in the pre-COVID cohort and 109 in the COVID cohort. There were no significant differences in baseline demographics. There were no significant differences between cohorts at 6 months in weight loss (21.6 kg vs 22.5 kg, p=0.43), percent weight loss (18% vs. 18%, p=0.63), and BMI change (8.0 vs. 8.4, p=0.39) which was maintained at 12 months. In multivariable models, after adjusting for age, gender, ethnicity, and baseline BMI, undergoing surgery during the pandemic was not associated with a difference in weight loss or BMI change at 6- and 12-months post-operatively.

Conclusion:
Despite the severe societal impact of the COVID-19 pandemic, laparoscopic sleeve gastrectomy remained a durable intervention for adolescent obesity, with no observed differences in weight loss in patients undergoing surgery during the pandemic compared to pre-pandemic.

A022

Psychosocial and psychological determinants of bariatric patients' post-surgical outcomes.

Heather Fellmeth *Camden NJ*[1], Dina Silverman *Voorhees NJ*[1], Nimisha Rajesh *Philadelphia PA*[2]
Cooper University Hospital[1] La Salle University[2]

Obesity is one of the most significant global public health concerns. Bariatric surgery, a gold-standard treatment for obesity, is used by Cooper University Health Care (CUH). Long-term success of bariatric surgery is dependent on various behavioral, social, and psychological factors. CUH serves a diverse, urban population that embodies unique characteristics, some of which potentially serve as a barrier to achieving post-operative success. The initial goal of this study is to better understand the distinct psychosocial factors that either promote or inhibit weight loss and maintenance in CUH patients. Each candidate for bariatric surgery at CUH is required to be evaluated by a licensed psychologist. This evaluation includes a semi-structured clinical interview that assesses the patient's demographics, social history, current and past eating behaviors, and psychiatric history. Data from this study was collected from patients who received bariatric surgery at CUH between 2015 to 2020 (N = 113, 82.3% female, 59.3% white, non-Hispanic, mean age = 45.4 years). Patients lost an average of 73.7 lbs. 2 years after surgery. Patients who attended college, including those who did not graduate, and graduate school, lost significantly more weight than patients who did not attend college [$f(5,107) = .2.359$, $p < .05$]. As this study is in the early, preliminary stages of data collection and analysis, future studies will also focus on the impacts of psychological functioning (e.g., disordered eating, depression, and anxiety) on weight loss.

A023

A Rare Events Model - Conversion Sleeve to Roux-en-Y Gastric Bypass is Associated with Increased Early Marginal Ulceration: A 2020-2021 MBSAQIP Analysis

Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[1], Iryna Popiv *Baton Rouge LA*[1], Devan Lenhart *New Orleans LA*[1], Denise Danos *New Orleans LA*[2], Michael Cook *New Orleans LA*[2], Philip Schauer *Baton Rouge LA*[1], Vance Allbaugh *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

INTRODUCTION:
Early marginal ulcer (MU), occurring within 30-days of operation, is a rare event following Roux-en-Y gastric bypass (RYGB); however, recent data suggests an increased MU incidence after sleeve gastrectomy (SG) to RYGB conversion (SG-RYGB) compared to primary RYGB (p-RYGB). We hypothesized that early MU would be increased in VSG-RYGB compared to p-RYGB.

METHODS:
All 379,822 records from the 2020 and 2021 MBSAQIP public use files were examined. A total of 131,526 RYGB cases were extracted and, after excluding pediatric cases, non-binary gender, missing BMI data, missing operative time, and conversions other than SG-RYGB, 102,992 were included in analysis. Both p-RYGB & SG-RYGB patient characteristics, case information, and postoperative outcomes were compared. A diagnosis of early MU was modeled using sleeve conversion status and other relevant risk factors with a rare event logistic regression.

RESULTS:
Early MU occurred in 223 of 86,477 (0.3%) p-RYGB cases compared to 66 of 16,515 (0.4%) SG-RYGB p=0.0016). Conversion to SG remained a significant risk factor for early MU in a multivariable rare event logistic regression (OR 1.42 (1.05,1.93) p=0.025). Other risk factors included black race (p<.0001), insulin-dependent diabetes (p=0.020), history of cardiac catheterization (p=0.004), history of deep vein thrombosis (DVT) (p=0.055), and active immunosuppression therapy (p=0.003) (Table 1).

CONCLUSION(S):
While early MU remains a rare event following RYGB, SG-RYGB patients are 42% more likely to experience early MU over their p-RYGB counterparts. As MU occurred at higher rates in SG-RYGB, careful attention to marginal ulcer prevention should be exercised in this population.

A025

Bezoars after Gastric Bypass: Unusual Cause of Small Bowel Obstruction

Shamon Gumbs *New York NY*[1], Sebastian Valdivieso *New York NY*[1], Maria Guevara-Kissel *New York NY*[1], Karina McArthur *New York NY*[1]
Harlem Hospital Center[1]

Background: Bezoar-induced small-bowel obstruction (SBO) after Roux-en-Y gastric bypass (RYGB) is uncommon and remains a diagnostic dilemma.

Clinical Case:

We present two cases of Bezoar-induced SBO. A 46-year-old female with lupus and RYGB presented with partial SBO. Abdominal CT showed a transition point distal to the jejunojejunal anastomosis (A). Diagnostic laparoscopy revealed a transition point in the distal ileum with intra-luminal food unable to be mechanically decompressed. An enterotomy, evacuation, and transverse closure were done. The postoperative course was unremarkable.

A 39-year-old female with poor dentition and a remote history of RYGB, complicated by an internal hernia, presented with symptoms of SBO. Abdominal CT revealed ascites and multiple dilated small bowel loops (B). Diagnostic laparoscopy showed markedly dilated loops of bowel which was converted to open. A bulky intraluminal lesion representing a food bezoar was noted in the distal ileum. This was successfully decompressed into the colon. The postoperative course was unremarkable.

Discussion:

Bezoar-induced SBO after RYGB is an uncommon etiology. Bezoars can be asymptomatic or mimick symptoms of internal hernia or adhesive SBO post RYGB. Accurate diagnosis can be challenging and requires a high index of suspicion.

Intestinal bezoars, specifically distal ileum, can be fragmented intraluminally by external compression and milked through the ileocecal valve. If unsuccessful, an enterotomy and extraction should be performed. We highlight the importance of maintaining a low threshold for diagnostic laparoscopy, ongoing nutritional counseling and recognize the impact of poor dentition in this patient population.

A026
Identification of Pre-Operative Health Variables in the Bariatric Surgical Patients

Johnny Wen 1, Lena Wen (Torrance, CA), Houman Solomon1 (Medical Director Bariatric Wellness Center)
Providence Medical Hospital, Torrance, CA 1
Johnny Wen *Torrance CA*[1], Lena Wen *Torrance CA*[2], Houman Solomon *Torrance CA*[3]
Providence Hospital[1] Research Assistant[2] Providence Hospital/South Bay Surgeons[3]

Background:
According to the National Institute of Health, obesity is a national epidemic. Bariatric surgery is considered the sustained weight reduction option for obese patients. As of date, various methods for identifying pre-surgical bariatric candidacy exists (Sogg et al., 2016). We utilized a widely used personality instrument as one of the instruments- PAI in addition to the formal interview process for medical appropriateness.

Methods:
Thirty three patients (27 females and 6 males), age (mean = 42.54 years, sd =11.40, range 19 to 68), Education (mean = 13.5 years, sd = 2.06) with group average BMI (kg/m2) = 46.63 were administered the PAI prior to their surgical procedure. Sixty four percent were Hispanic while almost 20% were AA. Average female body fat percentage = 60.19 and average male body fat percentage= 50.19.

Results:
We identified a statistical trend towards this diverse yet unique social economic group. The scores approached a reference point where concerns for symptom complaints and exhibiting problems of a particular type. Specifically, the Somatic Complaints-Conversion Scale, Somatic Complaints-Somatization Scale and Somatic Complaints-Health Concerns Scale show promise in identifying patients experiencing symptoms and problems areas of this patient population.

Conclusions:
The Somatic Scores above did not reach the clinical cut score for statistical significance, however, it does indicate a characteristic trend in this patient population who are undergoing surgery. These trends direct the providers to attend to patients' health concerns, pre-occupation with health and physical functioning and measure of the degree of focus on their health matters.

A013

Simplifying the Preoperative Cardiac Evaluation for Bariatric Patients: the Duke Activity Status Index

R. Luke Rettig *San Francisco CA*[1], Isaac Benque *San Francisco CA*[1], Jackly Juprasert *New York NY*[1], Khuzaima Rangwalla *San Francisco CA*[1], Stanley Rogers *San Francisco CA*[1], Jonathan Carter *San Francisco CA*[1]
UCSF[1]

Background:
Patients with severe obesity are known to have significant rates of hypertension, diabetes mellitus, and perceived poor functional capacity, often prompting preoperative cardiac testing before bariatric surgery. We hypothesized the vast majority of bariatric patients can achieve ≥4 metabolic equivalents (METS), and therefore do not need additional preoperative cardiac testing beyond a simple electrocardiogram.

Methods:
We introduced the Duke Activity Status Index (DASI) into our bariatric preoperative evaluation. The DASI is a validated set of 12 yes/no questions used to predict a patient's functional capacity. We describe DASI results in a typical bariatric population along with other well-known perioperative cardiac risk predictors.

Results:
398 patients completed a DASI questionnaire. Mean age was 44±12 years, 78% were female, 50% had hypertension, 40% had hyperlipidemia, 40% had sleep apnea, and 28% had diabetes mellitus. Mean body mass index was 47±9 kg/m^2. 12.6% of patients had 2 or more Revised Cardiac Risk Index predictors of cardiac risk. The functional capacity, estimated by DASI, averaged 7.5 ± 2.2 METS and was ≥4 METS in 92% of patients. For higher risk patients with METS<4, 32% underwent echocardiograms, 48% underwent stress tests, and 3% underwent cardiac catheterizations. For patients with predicted METS≥4, there was less testing: 13% underwent echocardiograms, 12% underwent stress tests, and 1.6% underwent cardiac catheterization. No patient had a perioperative cardiac event.

Conclusion:
DASI is a simple and objective tool to estimate preoperative functional capacity in bariatric patients. Incorporation of DASI into bariatric preoperative evaluation can reduce the need for cardiac testing.

A031

Developing a 6-Minute Walk Test Reference Equation for Patients with Morbid Obesity and Comparative Analysis with an Existing Model

Sunghwan Choi *Mankato MN*[1], Dilbar Abdurakhimova *Mankato MN*[2], Joy Macheel *Mankato MN*[1], Heidi Bednarchuk *Mankato MN*[1], Yujin Jung *Mankato MN*[3]
Mayo Clinic Health System, Mankato[1] AGCO[2] Minnesota State University, Mankato[3]

Background:
The 6-minute walk test (6MWT) is extensively utilized to evaluate function of patients with morbid obesity and is a safe, straightforward assessment. However, existing reference equations overlook patients with morbid obesity. This retrospective study aimed to create a 6MWT reference equation tailored for this population and compared it to an existing model by Capodaglio et al., which included patients with an average BMI of 43 kg/m² and a mean age of 35.

Subjects:
295 patients with morbid obesity were included, each evaluated by a single Physical Therapist between 2017 and 2023. The study comprised 252 females and 43 males, with an average BMI of 48.2 kg/m² and an average age of 43.

Methods:
We conducted a multiple linear regression analysis to develop a new reference equation for predicting 6MWT performance using 85% of the study sample. The remaining 15% of the sample was employed for cross-validation. Subsequently, our model was compared to Capodaglio et al.'s equation using the Wilcoxon test.

Results:
Our regression model yielded the equation: 6MWT=958.5620−(4.2143×Age;years)−(5.4342×BMI;kg/m2)−(43.2640×Gender;0=male;1=female). Our predicted values were statistically lower than those reported by Capodaglio et al ($p-value < 0.001$) with an average difference of 6.52%. This difference was most significant in patients over age 60, with a 16.31% deviation, while those aged 40 and younger showed only a 1.55% deviation.

Conclusion:
A 6MWT reference equation for patients with morbid obesity was formulated. Our study yielded statistically lower predicted values than Capodaglio et al.'s model, with the greatest difference in patients aged over 60.

A032

Genetic Predisposition for Hereditary Diffuse Gastric Cancer in a Bariatric Patient with a Roux-en-Y Gastric Bypass: Challenges in Management and Surveillance, A Case Report

Matthew Jung *Manhasset NY*[1], Dominick Gadaleta *Great Neck NY*[1]
North Shore University Hospital[1]

Introduction

Bariatric Surgery over the last two decades has grown significantly in popularity. Currently the two most performed procedures are the Roux en Y Gastric Bypass (RYGB) and the Sleeve Gastrectomy. However, this increasing subset of patient with surgically altered anatomy presents an interesting challenge for surgeons when faced patients at risk for Gastric Cancers. Here we present a patient who had previously had a RYGB and was recently found incidentally to be a carrier of a Catenin Alpha 1 (CTNNA1) gene mutation which put her at significant risk of developing Hereditary Diffuse Gastric Cancer (HDGC).

Case Presentation

Our patient is a 67-year-old female, who had previously had a RYGB for morbid obesity in 2002. She was doing well from a bariatric standpoint since her initial surgery. In 2019 the patient underwent genetic test for skin cancer given her significant family history of malignancy. At the time, testing resulted in two positive genes, but given lack of information the significance was unclear. In 2023, the patient received notification that one of her genetic mutations, specifically the one encoding for CTNNA1, was pathogenic for increased risk of HDGC. After initial EGD showed no evidence of malignancy in the pouch, decision was made to perform diagnostic laparoscopy with total gastrectomy of gastric remnant as prophylactic measure given the difficulty of repeat short term endoscopic surveillance of the remnant stomach.

Conclusion

We present a novel way in the management in this small subset of patients that prove difficult to surveil endoscopically.

A033

The Changes in Dietary Intake and Tolerance for Chinese Food after Bariatric Surgery in Taiwan

Yu-Ning Lin *Taoyuan* [1], Keng-Hao Liu [1]
Chang Gung Memorial Hospital[1]

Purpose

This study aimed to investigate changes in dietary intake and food tolerance after bariatric surgery in the Chinese population with a focus on Chinese dietary patterns.

Method

The study enrolled 100 patients who had undergone bariatric surgery and were followed for 1 year, recording patient characteristics, laboratory data, and dietary conditions. Food tolerance was assessed using a questionnaire at 1, 3, 6, 9, and 12 months after the operation. The surgical methods, changes in body condition, laboratory results, and tolerance scores were analyzed.

Results

The results showed an average decrease in BMI of 11.2 kg/m2 and improvements in metabolic parameters after 1 year of surgery. Calorie and protein intake decreased sharply one month after surgery but increased over the following year. Food tolerance varied for different types of foods and at different time points, with dry rice and bread showing poor tolerance (<3 at post-op 1 month). However, congee, eggs, soybean, fruits, and milk had relatively better tolerance scores (>3.5) in the early post-op period. Nuts, yogurt, and cheese were less commonly tried, which may be related to Chinese dietary habits.

Conclusion

Post-bariatric surgery dietary education and planning should prioritize small, frequent meals, protein-rich, and soft foods initially, followed by gradually introducing other foods based on tolerance. These recommendations can guide post-bariatric surgery dietary management and planning under the Chinese dietary pattern, including avoiding dry rice and bread initially and considering dairy products, eggs, soybean, fruits, and vegetables based on their softness and tolerance.

A034

The Novel Development of a Customized GPT for Bariatric Patients Obtaining Medical Weight Management

Maria Iliakova *Overland Park KS*[1], Tamara Lakose [2]
Iliakova Health[1] Mercy Iowa City[2]

Objective:

The primary objective of this study is to design and implement a custom Generative Pre-trained Transformer (GPT) tailored to patients obtaining medical weight management. Custom GPT technology enables personalized support and guidance for defined patient populations. The intent of a custom GPT for patients undergoing medical weight management is to enhance patient experience and outcomes while reducing provider administrative burden.

Description:

Input relevance and accuracy for the custom GPT is established using program-specific medical weight management materials. The technology employs natural language processing and machine learning algorithms to understand and respond to user queries. The user-friendly interface allows patients direct access to verified virtual assistance.

Method of Use/Application:

Users access the custom GPT through an online platform to input questions. The GPT uses a database of program-specific materials to generate conversational, real-time responses to individual user questions. The system allows tracking of topics queried, frequency of use, and identification of gaps in patient education and service.

Preliminary Results:

Preliminary results indicate positive user experiences with the custom GPT in medical weight management. Reports include user satisfaction, repeat use, and citing GPT in provider selection. Initial feedback suggests that the technology addresses common patient questions.

Conclusions/Future Directions:

The development of a custom GPT for patients undergoing medical weight management demonstrates potential in improving patient outcomes and satisfaction while decreasing provider administrative burden. Custom GPTs may significantly improve the delivery of validated health care to bariatric patients with ongoing training and testing in a wider array of patient settings.

A035

Five-Year MBSAQIP Database Analysis of Post-Operative Leak Rates for Robotic vs. Laparoscopic Sleeve Gastrectomy (SG) to Roux-en-Y Gastric Bypass (RYGB) Conversions

Shamon Gumbs *New York NY*[1], Narayan Osti *new york NY*[1], Arin Stowman *New York NY*[2], Sebastian Valdivieso *New York NY*[1], Brian Altonen *New York NY*[3], Ameer Aboud *Piscataway NJ*[1], Karina McArthur *New York NY*[1], Sharique Nazir [1]
Harlem Hospital Center[1] Columbia University Vagelos College[2] NYC Health + Hospitals[3]

Background

SG is the most performed procedure in bariatric surgery. Patients may experience GERD and weight regain, necessitating conversion to RYGB. This study aims to evaluate leak rates after conversion from SG to RYGB (robotic vs. laparoscopic).

Methods

Retrospective study of SG to RYGB conversions in the MBSAQIP database (2017-2021). Logistic regression were performed to identify factors associated with leaks.

Results

13,441 patients underwent SG to RYGB conversions. 90.5% were female, 62% were white, and 27% were black. The most common indication for conversion was GERD (52%), then weight gain (46%). The robot was utilized in 23.3% of cases. 57 patients developed an anastomotic leak, 15.8% in the robotic group vs. 84.2% in the laparoscopic group ($p < 0.01$). Operative time between the two groups were the same. Within 30 days, 23 patients required an intervention (OR 2.17), and 42 patients had re-operation (OR 2.33), although not statiscally significant. There were three mortalities in the leak group. Previous surgery had a significant correlation with faster leak onset ($p = 0.05$). Patients with pre-operative pulmonary risk factors had a faster leak onset (delta 6 days; $p = 0.004$) and were more likely to be readmitted under 20 days ($p < 0.01$). Factors associated with higher leak odds were a history of DVT/PE, renal insufficiency, and asian/pacific islander races ($p < 0.05$). No association with leaks were found with diabetes, smoking, or prior surgery.

Conclusion

Compared to laparoscopy, Robotic SG to RYGB conversions demonstrated lower leak rates, with no significant difference in operative times.

A036

Adolescent Bariatric Surgery Programs: Progress in Pennsylvania

Lisa Baro *Douglassville PA*[1], Gunnar Wolfe *Corona CA*[2], Stephan Myers *Sinking Spring PA*[3], Renee Riddle *Wyomissing PA*[3], Vesta Salehi *philadelphia PA*[4]
Tower Health Weight Loss Surgery and Wellness Center[1] Tower Health Weight Loss Surgery and Wel[2] Reading Hospital Weight Loss Surgery and[3] St. Christopher's Hospital for Children[4]

Objective: In 2019 the American Academy of Pediatrics (AAP) called for increased access to Metabolic and Bariatric Surgery (MBS). To understand adolescent weight loss programs offering MBS in Pennsylvania, a survey was completed.

Methods: Adolescent weight loss centers in Pennsylvania offering MBS were identified using the American Society for Metabolic and Bariatric Surgery (ASMBS) on-line directory and Google search. Phone interviews were conducted with the director of each program.

Results: Eight programs were identified. Operations were performed in seven adult hospitals. Six had Comprehensive Adolescent Accreditation through the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP). A total of 92 adolescents were operated on in the year from June 2021 to July 2022 which is an 84% increase from the preceding year. Ninety patients received a sleeve gastrectomy. Adult bariatric surgeons were involved in all operations. Six of the programs were led by diplomates of the American Board of Obesity Medicine. Each clinic had a psychologist. No program had all eight of the health care professionals recommended by the authors, but two programs had seven of the eight. In addition, three included a social worker, two an exercise physiologist and two had pediatric subspecialists incorporated into the clinic. Two programs had the operating surgeon caring for patients in the multidisciplinary clinic.

Conclusion: This survey of programs across Pennsylvania shows an increase in the number of bariatric operations. More progress is necessary to improve access to this service and improve the quality of programs in Pennsylvania.

A037

Effect of Limb Length Ratio on Roux-en-Y Gastric Bypass Outcomes (CLIMB-1) Cleveland Intestinal Measuring Bypass study -1

Salvador Navarrete *Cleveland OH*[1], Thomas Shin *Boston MA*[2], Doua Elamin *Cleveland OH*[1], Jerry Dang *Cleveland OH*[1], Xiaoxi Feng *Cleveland OH*[1], Andrew Strong *Cleveland OH*[1], Gustavo Romero-Velez *New York NY*[1], Ali Aminian *Cleveland OH*[1], Matthew Kroh *Cleveland OH*[1], Ricard Corcelles *Cleveland OH*[1]
Cleveland Clinic Foundation[1] Brigham and Women's Hospital[2]

Background:
Despite being one of the most performed bariatric procedures, there is no consensus regarding optimal limb lengths of Roux-en-Y gastric Bypass (RYGB). We hypothesize that a ratio-adjusted small bowel to Roux and BP limb lengths in RYGB results in superior outcomes.

Methods:
As the initial phase of a multi-part prospective study, we describe total intestinal limb length and length ratios of RYGB patients with BMI> 40. Roux and biliopancreatic limb lengths were not altered due to this study. Patient outcomes, including TWL, nutritional status, and 30-day complications were captured by chart review. As secondary outcome, we explored technical feasibility of counting small bowel length.

Results:
A total of 25 patients were included with a mean age of 44 ±10.35 years. The mean BMI was 47.5 ±8.01 kg/m2. Mean operative time was 142 minutes ± 28.6 with mean time counting TIL of 11.52 minutes ±4.19. Ease of bowel measurement was measured using a 4-point Likert scale: very easy (4.3%), easy (30.4%), moderately difficult (43.5%), difficult (17.4%). One case was excluded as the small bowel was not measurable due to intraoperative factors. TIL mean was 592 ±93.34 (450-820). BP limb length mean absolute number was 109± 29 with ratio mean of 18.86% ±5.84. The Roux Length (RL) mean absolute number was 103± 15 representing 17.71% ±3.06.

Conclusion:
Intestinal lengths in patients are highly variable. Measuring intestinal lengths in each patient is a safe and time efficient approach. Further studies are needed to evaluate different limb length ratios influencing outcomes of RYGB.

A038

Deprivation Indices Contrast by Payer Status Suggesting Disparities in Access to Care

Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[2], Iryna Popiv *Baton Rouge LA*[2], Michael Cook *New Orleans LA*[3], Philip Schauer *Baton Rouge LA*[2], Robert Newton *Baton Rouge LA*[4], Vance Allbaugh *Baton Rouge LA*[2]
Pennington Biomedical Research Center / LSU-HSC[1] Pennington / LSU-HSC[2] LSU-HSC[3] Pennington Biomedical Research Center[4]

INTRODUCTION:
Regional differences in healthcare access negatively affects patient outcomes. Despite increased access to metabolic surgery (MS) via Medicaid and Medicare services (CMS), disparities persist. We hypothesize that CMS patients may not travel farther, but travel from higher deprivation areas compared to those privately insured (PI) or self-pay (SP) individuals.

METHODS:
A total of 1394 records of MS were identified. Duplicate patients, PO boxes, and out-of-state addresses were excluded, and 923 cases were analyzed. Cases were geocoded and matched to the 2021 Area Deprivation Index (ADI, UW-Madison's Neighborhood Atlas®). ANOVA with Tukey's post-hoc analyses were applied to assess payer status by distance-to-care and ADI.

RESULTS:
Mean state ADI deciles for Medicaid, Medicare, PI, and SP were 5.43, 5.39, 4.32, and 2.93, respectively ($p<0.01$). Mean national ADI percentiles for Medicaid, Medicare, PI, and SP were 68.4, 68.0, 59.6, and 49.3, respectively ($p<0.01$). Post-hoc analysis revealed no difference between Medicaid and Medicare ADI (state $p=0.99$, national $p=0.99$), or PI and SP (state $p=0.21$, national $p=0.23$). Comparisons between CMS-covered and PI/SP groups were significant ($p<0.01$). No differences in mean travel distances were found for Medicaid (25.27miles), Medicare (19.70miles), PI (22.41miles), and SP (22.13miles) ($p=0.23$). When adjusted for ADI, however, distance-to-care was increased by payer status ($p=0.048$); post-hoc comparisons notable for true differences in Medicaid and PI ($p=0.04$).

CONCLUSION(S):
Significant socio-economic disparities in MS access to care are evident, marked by ADI score differences despite similar travel distances. Targeted, region-based interventions and policy focused on socio-economic contributors to obesity treatment access are needed.

A039

Impact of an Enhanced Recovery Protocol for Laparoscopic Roux-en-Y Gastric Bypass and Sleeve Gastrectomy

David Vavra *La Crosse WI*[1], Katelyn Mellion *La Crosse WI*[1], Brandon Grover *La Crosse WI*[1], Joshua Pfeiffer *La Crosse WI*[1], Beth VanderWielen *Rochester MN*[2], Allison Ecklund *La Crosse WI*[1]

Gundersen Health[1] Mayo Clinic[2]

Enhanced recovery after surgery protocols (ERAS) are standardized perioperative programs designed to improve postoperative outcomes. This study evaluated the effect of ERAS implementation in patients undergoing bariatric surgery.

This single-center retrospective review compared outcomes between a pre-ERAS cohort (January 2016-July 2019) and a post-ERAS cohort (March 2021-July 2023) of adult patients undergoing laparoscopic sleeve gastrectomy (LSG) or Roux-en-Y gastric bypass (LRYGB) for weight loss. Our ERAS included preoperative interventions (expectation management, antiemetics, multimodal pain medication), intraoperative interventions (dexmedetomidine infusion, laparoscopic guided nerve block, dexamethasone administration), and postoperative interventions (immediate postoperative diet, multimodal pain medication, early ambulation). Primary endpoints were hospital length of stay (LOS) and total morphine milligram equivalents (MME) utilized in the perioperative period.

The study included 389 and 551 patients in the pre-ERAS and post-ERAS cohort, respectively. Demographics between the two groups were similar, with pre-ERAS and post-ERAS average age 46 vs 47 years, average Body Mass Index 46 vs 46, and 81% vs 83% female, respectively. LSG was slightly more prevalent post-ERAS (52% vs 59%, $p=0.039$). The post-ERAS cohort had shorter LOS (2.4 vs 1.5 days, $p<.001$), lower total administered perioperative MME (105 vs 50, $p<0.001$), and lower average pain scores (4.5 vs 3.4, $p<0.001$). Fewer patients were discharged with an opioid prescription in the post-ERAS cohort (91% vs 36%, $p<0.001$). There was no significant difference in 30-day readmission or mortality rates between groups.

ERAS implementation resulted in decreased total perioperative opioid use and hospital LOS in bariatric surgery patients without increasing 30-day mortality or readmission.

A040

Pre-Surgical Weight Stigma as a Predictor of Post-Bariatric Surgery Weight Change: A Review of the 1-Year Longitudinal Evidence

Hannah Farnsworth *Salt Lake City UT*[1], Dakota Leget *Gainesville FL*[2], Lara LaCaille *Duluth MN*[3], Rick LaCaille *Duluth MN*[3], Afton Koball *Rochester MN*[4], Chloe Backderf *Duluth MN*[3], Alicia Niemann *Duluth MN*[3]

University of Utah[1] University of Florida[2] University of Minnesota Duluth[3] Mayo Clinic[4]

Background:

Experienced weight stigma in bariatric surgery patients may impact post-surgical outcomes, with evidence supporting detrimental health effects following weight-based stigmatization. This meta-analysis examined patients' pre-surgical weight stigma experiences and weight change post-bariatric surgery.

Methods:

Searches were conducted within six databases and a supplemental hand search. Quantitative studies examining experienced weight stigma in pre-surgical bariatric patients with post-surgical weight change (12 mos.) were included. This meta-analysis follows PRISMA guidelines.

Results:

The search yielded 24 eligible studies. Five studies were initially included in the meta-analysis; the remaining studies captured variables of interest but lacked useable data. Upon contacting authors, we gained access to a sixth study to include in analyses. Following a sensitivity analysis, one study was excluded. The meta-analysis demonstrated a small, but significant effect of pre-surgery weight stigma on post-surgery weight change ($r = -0.19$, $p < .05$, CI: -0.637 to - 0.356). That is, higher pre-surgical weight stigma was associated with greater weight loss 1 year post-bariatric surgery.

Discussion:

Preliminary evidence from this review indicates that preoperative experienced weight stigma predicts greater weight loss post-bariatric surgery. Due to limited available studies, we could not examine moderators or confounders. It is possible that variables, such as BMI or psychological disorders, may contribute to this association. We found that several studies gathered data on variables of interest but did not report on the association between these variables. Thus, future research should publish these data to aid in our understanding of the potential impacts of weight stigma on bariatric surgery outcomes.

A042

People Also Ask: What Do Patients Want to Know About Weight Loss Surgery and What Can Artificial Intelligence Tell Them?

Sarah Kooper-Johnson *Boston RI*[1], Katherine Wang *Charlestown MA*[1], Viknesh Kasthuri *Providence RI*[2], Sheila Partridge *Newton MA*[3], Susana Wishnia *Newton MA*[3]
Tufts University School of Medicine[1] Warrent Alpert Medical School[2] Mass General Brigham[3]

Despite its efficacy, only about 1% of those who qualify for bariatric surgery undergo it. Herein, we use search analytics to determine the top questions regarding bariatric surgery and evaluate AI-generated answers to these queries, to ascertain potential barriers and assess the quality of information patients find online.

The "People Also Ask" function of Google was queried for the top 100 questions related to the term: "weight loss surgery". These were sorted with Rothwell's classification and related sub-categories. The top 10 unique questions were fed to an AI-powered search engine which generated original responses and sources for user reference. These were graded according to JAMA benchmark criteria for source quality. The answers were then graded by four bariatric surgeons.

50% of questions were fact-based with the most common sub-category being cost, followed by technical details of the surgery. 23% of questions were value-based and pertained to evaluation of the surgery. 17% of questions were policy-based and pertained to indications for surgery. None related to risks or pain.

Regarding source quality, 44% presented an author, 59% cited sources, 82% presented publication dates, and 33% contained ownership or sponsorship disclosures. The average quality score was 2.1/4.

For the AI-generated answers, these received 4.73/6 for accuracy and 2.20/3 for completeness.

Individuals asking questions online about bariatric surgery are most concerned about paying and qualifying for these procedures. AI-generated responses to these questions provided fair results, although the sources to which patients are directed are less reliable.

A045

Patient Preferences for Metabolic Surgery: Does BMI and Operative Surgeon Make a Difference?

Florina Corpodean *New Orleans LA*[1], Michael Kachmar *Baton Rouge LA*[1], Michael Cook *New Orleans LA*[2], Philip Schauer *Baton Rouge LA*[1], Vance Albaugh *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

Introduction*:*

Operative selection in metabolic surgery (MS) is a complex, collaborative process between patient and surgeon, considering factors such as risk, medical comorbidities, cost, as well as desired weight loss and resolution of associated conditions. This study aimed to explore patient preferences for bariatric procedures to assess the impact of body mass index (BMI) and surgeons on operative selection.

Methods*:*

Retrospective review of 609 patient surveys prior to initial surgical visit (2015-Present) was conducted at a single institution. Patient preferences and characteristics, as well as operation preference were examined, including the influence of BMI and operating surgeon at the institution.

Results*:*

Prior to the initial visit, 56% of patients indicated preference towards sleeve gastrectomy (SG), while 18% indicated preference toward Roux-en-Y gastric bypass (RYGB); a small percentage favored alternative procedures or remained undecided. Notably, initial patient preferences aligned with actual procedure, with 72% of SG-desiring patients and 66% of RYGB-desiring patients receiving their preferred operation. Aside from preference, body mass index (BMI) influenced procedure selection, with higher BMI correlating with increased likelihood of undergoing SG and decreased likelihood of undergoing RYGB (x^2=34.584, df=16, p=0.0004). Inter-surgeon comparisons demonstrate a clear impact on procedure received when compared to initial patient preference with matches ranging from 28.8-100% for SG and 33-87.8% for RYGB.

Discussion*:*

Procedure selection remains a complex interplay of patient characteristics and surgeon influence in MS procedure selection, emphasizing the need for personalized decision-making and increased long-term outcome data in the field.

A047

Robotic Bariatric Surgery Implementation in a Public Safety-Net Hospital Setting: Can Equivalent Outcomes be Obtained?

Sweta Bhagavatula *Los Angeles CA*[1], Ashley Tran *Los Angeles CA*[1], James Nguyen *Los Angeles CA*[1], Stuart Abel *Los Angeles CA*[1], Adrian Dobrowolsky *Los Angeles CA*[1], Kamran Samakar *Los Angeles CA*[1], Matthew Martin *Los Angeles CA*[1]
Los Angeles County + USC Medical Center[1]

Introduction:
Robotics is increasingly utilized in bariatric surgery, but there is little experience or data in a safety-net hospital setting and patient population. Prior studies have also suggested worse outcomes associated with lower socioeconomic factors and public insurance.

Objective:
To compare outcomes of a new robotic sleeve gastrectomy program at a public, safety net hospital (RSG-SN) with those undergoing laparoscopic sleeve gastrectomy at the same center (LSG-SN) and at an affiliated private hospital (LSG-PH).

Participants:
508 patients were identified (21 underwent RSG-SN, 118 underwent LSG-SN and 369 in the LSG-PH group). Inpatient and outpatient outcomes including the percent excess weight-loss (%EWL) was compared between groups.

Results:
There was no significant difference in patient demographics or comorbidities between RSG-SN and either LSG group, including age, gender, body mass index, and race/ethnicity. RSG-SN was associated with a significantly shorter length of stay compared to LSG-SN (1.4 vs. 2.2 days; $p<0.01$), with no leaks, conversions to open, or reoperations. Operative times, reoperation rates, readmission rates, and complications showed no significant differences. Compared to the LSG-PH cohort, RSG-SN had slightly longer OR times (+10mins, $P<0.05$) but with no difference in hospital stay or postoperative complications. Weight loss was statistically equivalent in all 3 cohorts at 6 and 12 months, with the highest %EWL seen with RSG-SN (Fig., p=NS).

Conclusion:
A pilot robotic sleeve gastrectomy program initiated at a public safety-net hospital demonstrated shorter hospital stays and equal outcomes compared to LSG at both the same center and the affiliated private hospital.

A048

Effectiveness of Roux-en-Y Gastric Bypass Revisions on Weight Loss

Francisco Guzman *new york city NY*[1], Jack Liu *Bronx NY*[2], Rie Seu *Bronx NY*[2], Justin Cheong *New York NY*[1], Isha Punn *Staten Island NY*[2], Rithva Ramesh *Bronx NY*[2], Abraham Krikhely *New York NY*[1], Diego Camacho *Bronx CT*[2], Erin Moran [2], Marc Bessler *New York NY*[1], Jenny Choi *Bronx NY*[2]

Columbia University[1] Montefiore Medical Center[2]

Intro

A percentage of gastric bypass patients will seek additional options to address weight recidivism. Various revisional options may be feasible based on anatomical factors. We examine mid-term weight loss outcomes, effect on comorbidities, and need for intervention following revisional surgery.

Methods

Patients undergoing revision of their GB between 2014-2022 at two tertiary academic centers were included. Groups were analyzed based on surgical approach: 1) proximal (pouch+/- anastomosis stapling/resizing); 2) combined (proximal + small bowel distalization to reduce total alimentary limb length [TALL]).

Results

238 patients were included; n=208(87%) female, mean BMI of 43±6, median age of 47 (IQR 15). Median follow up time was 3 years; 75% pts had >1 year of follow up. Proximal approach group N=145(61%); combined approach group N=93(39%). Average TALL after distalization was 360 cm. Median TBWL% by group was 10 (IQR 18) and 22 (IQR 16), respectively ($p<0.001$); %EBMIL was 27 (IQR 41) and 59 (IQR 41), respectively ($p<0.001$). Twenty-one percent of patients with hypertension either reduced or eliminated their medication dependence at last follow up ($p=0.005$). Morbidity requiring intervention was 4.6% (endoscopic [3%] or surgical [1.6%]).

Conclusion

Surgical revisions following Roux-en-y gastric bypass may include restricting the pouch/anastomosis as a stand-alone intervention or in combination with small bowel distalization to decrease the TALL. The combined approach offered significantly higher weight loss. Both options carry acceptable morbidity.

A046

The Impact of Mood on Loss of Control Eating Over Time Following Metabolic and Bariatric Surgery

Gail Kerver *Fargo ND*[1], Joseph Wonderlich *Fargo ND*[1], Theresah Amponsah *Fargo ND*[1], Katherine Nameth *Stanford CA*[2], Leslie Laam *Fargo ND*[1], Kristine Steffen *Moorhead MN*[3], Leslie Heinberg *Cleveland OH*[4], Debra Safer *Stanford CA*[2], Stephen Wonderlich *Fargo ND*[1], Scott Engel *Fargo ND*[1]

Sanford Research[1] Stanford University School of Medicine[2] North Dakota State University[3] Cleveland Clinic[4]

While loss of control (LOC) eating is estimated to occur in up to 50% of patients following metabolic and bariatric surgery (MBS), mechanisms driving this concerning behavior are not fully understood. Some literature suggests that high levels of momentary negative affect (NA) prompt LOC eating post-MBS; however, it is unclear whether the strength of the relationship persists or changes with time elapsed since surgery. The current study utilized ecological momentary assessment (EMA) data to examine the prospective relationship between NA and LOC eating during the first three years post-MBS. Participants (N=150, 84.7% female, 77% White) responded to mood and LOC eating questions on their smartphone six times per day for seven days at 1-, 2-, and 3-years post-MBS. NA and LOC eating were rated on a 1-5 Likert scale, with higher scores indicating more severe symptoms. NA was used as a prospective predictor of LOC eating, and the analysis evaluated if number of years post-MBS strengthened or weakened (i.e. moderated) this relationship. A generalized linear mixed model demonstrated that NA predicted LOC eating for both within- and between-subjects (p's < .015). Years post-MBS moderated the prospective within-NA to LOC eating effect: the relationship remained unchanged from Year 1 to Year 2 (β=0.046, p=.689) but strengthened between Year 2 to Year 3 (β=0.297, p=.024). This suggests that NA becomes a more potent predictor of LOC eating as time passes post-MBS, which has important implications for interventions aimed at reducing LOC eating and promoting optimal weight outcomes in the post-surgical period.

A052

Magnetic Resonance Imaging-Proton Density Fat Fraction Correlates with Histologic Proven Hepatic Steatosis in Obese Patients: Single Center Study of Korea.

KI HYUN KIM *Busan* [1], Kyung Won Seo *Busan Busan*[1], Kwang Il Seo *Busan* [1]
Kosin University College of Medicine[1]

Aims

Obesity is one of the important causes of Non-Alcoholic Fatty Liver Disease (NAFLD). Therefore, there are clinical needs for non-invasive diagnosis of NAFLD in obese patients. This study aimed to evaluation the efficacy and accuracy of MRI-proton density fat fraction (MRI-PDFF) and TE-controlled attenuation parameter (TE-CAP) in diagnosing hepatic steatosis of obese patient in Korea.

Methods

From 2021 to 2022, patients with a body mass index (BMI) of 30 kg/m^2 or higher who underwent bariatric surgery to reduce weight were reviewed retrospectively. The patients who had the all results of liver histologic assessment, MRI-PDFF and TE-CAP were analyzed.

Results

The total of 66 patients was reviewed, with 27 (40.9%) males and 39 (59.1%) females. The mean age was 38.45 (±9.957) years, and the mean BMI was 41.138 (±8.376) kg/m^2. Histological findings were analyzed: steatosis 1.44 (±0.963), lobular inflammation 1.73 (±0.755), ballooning 1.61 (±0.523) and NAS score 4.77 (±1.537). Histologic fibrosis was confirmed in liver biopsy in 60 patients (90.9%), and the METAVIR stages were stage 1: 26 (39.4%), stage 2: 28 (42.4%), stage 3: 4 (6.1%) and stage 4: 2 (3.0%), respectively. As a result of non-invasive examination, mean TE-CAP was 334.09 (±51.619) and mean MRI-PDFF was 19.67 (±12.272). Both TE-CAP ($P<0.0001$) and MR-PDFF ($P<0.0001$) revealed statistically different values according to histologic steatosis grades. A significant correlation was also found between noninvasive MRI-PDFF and TE-CAP ($r=0.496$, $P<0.0001$).

Conclusions

The non-invasive test of both TE-CAP and MRI-PDFF are clinically useful for the evaluation of histological steatosis in obese patients.

A054

Management of Accidental Stapling Across Orogastric Tube During Revisionoal Roux-en-Y Gastric Bypass

Oscar Olavarria *HOUSTON TX*[1], Andrew Harner *Huntsville AL*[1], Naila Dhanani *Houston TX*[1], Melissa Felinski *Houston TX*[1], Shinil Shah *Houston TX*[1]
UTHouston[1]

Patient is a 51-year-old female with a history of gastroesophageal reflux disease, previous laparoscopic hiatal hernia repair with mesh and Nissen fundoplication in 2012, and subsequent recurrent hiatal hernia repair with mesh explantation, conversion of Nissen to Toupet fundoplication and gastrostomy tube placement in 2020. She presented to our clinic with recurrent reflux symptoms, difficulty with oral intake and weight loss. Pre-operative esophagogastroduodenoscopy revealed a 4cm recurrent hiatal hernia, with an intact wrap but with evidence of bile reflux. The patient was taken to the operating room for a robotic assisted laparoscopic Roux-en-Y gastric bypass. Unfortunately the orogastric tube was transected during the creation of the gastric pouch. This video demonstrates the management of this complication with partial resection of the gastric remnant, resection of the gastric pouch, and reconstruction with a hand-sewn esophagojejunostomy. The patient had an uneventful recovery, was discharged on postoperative day 3 and was last seen 11 months post-op doing well.

A056

Patterns of Vitamin A Deficiency After Bariatric Surgery: A Retrospective Review of Data from a Bariatric Center of Excellence

Abigail Solom *Burlington MA*[1], Dmitry Nepomnayshy *Burlington MA*[1], David Burns *Burlington MA*[1], David Ramsey *Peabody MA*[1]
Lahey Clinic[1]

Introduction

Bariatric surgery can be a life lengthening procedure. However, there are risks including nutritional deficiencies. The existing literature reveals a wide range of pre- and post-operative deficiency rates. This study examined the extent of Vitamin A deficiency in our bariatric surgery population.

Methods

Patients undergoing bariatric surgery at an academic medical center between March 30, 2015, and November 30, 2023, were categorized into restrictive or malabsorptive procedure groups. Patient demographic, biometric characteristics, and laboratory data were extracted from the electronic health record. Vitamin A deficiency rates were compared between time points and between type of surgery.

Results

Vitamin A deficiency was present in 9.1% of patients prior to surgery. Among patients with normal preoperative laboratory values, Vitamin A deficiency developed in 21.8% after bariatric surgery. The rate of newly developed Vitamin A deficiency was significantly higher in patients who had malabsorptive procedures 21.6% compared with restrictive procedures 15.5% ($p=0.048$). Finally, among patients with preoperative Vitamin A deficiencies, 71.9% remained deficient 6 months postoperatively.

Discussion

While our post-operative rate of Vitamin A deficiency aligns with existing literature, the high pre-operative rate underscores the importance of comprehensive nutritional screening for all bariatric patients, with an emphasis on both pre- and postoperative optimization. Our study emphasizes the need for further research to explore the long-term consequences of nutritional deficiencies on quality of life and overall health.

A057

Quality of life outcomes of Metabolic and Bariatric surgery tourism; a single-centre survey-based study

Haseeb Javed Khan *Lahore* [1], Tahir Ebrahim Yunus *Lahore* [2], Abdelrahman Nimeri *Boston MA*[3], Haider Abbas *Lahore* [2], Abdul Kamil Ghumman *Lahore* [2]
Evercare Hospital Lahore[1] Evercare Hospital[2] Harvard Medical School[3]

Global obesity affects one in three adults, prompting increased demand for metabolic and bariatric surgery (MBS). Despite its effectiveness, limited access to MBS has led to more people seeking it through medical tourism for lower costs and shorter wait times. However, ethical concerns arise due to limited follow-up care and potential complications. This study compares the quality of life (QOL) of native MBS patients (n = 69) to those engaged in MBS tourism (n = 36) from 11 different countries, utilizing the Bariatric Quality of Life Index (BQLI). Conducted in Lahore, Pakistan, with 105 participants who had MBS in the last 3 years, the survey-based study aims to assess the impact of MBS tourism on QOL and the efficacy of bariatric surgery for weight loss. The study revealed no significant difference in the quality of life between MBS tourism participants and native patients ($p > 0.05$). Both cohorts experienced considerable weight reduction post-MBS ($p = 0.00001$). A higher total weight loss percentage (TWL%) correlated positively with increased BQLI scores ($p = 0.01$). Younger patients experienced significantly improved quality of life after MBS compared to their older counterparts ($r = -0.3$, $p = 0.005$). The TWL% exhibited a progressive increase as the months advanced post-MBS ($r = 0.3$, $p = 0.004$). The type of bariatric surgery (SG, RYGB, OAGB, SADI) didn't significantly affect post-MBS quality of life ($p > 0.05$).

A060

Biliary dyskinesia following laparoscopic vertical sleeve gastrectomy

Hyo Yang *Morristown NJ*[1], Tyler Oe *Morristown NJ*[1], Zoltan Nemeth *Morristown NJ*[1], Ashish Padnani *Morristown AL*[1]
Morristown Medical Center[1]

Background:

Biliary disease secondary to gallstone formation after rapid weight loss is well documented. Current models describe a combination of elevated cholesterol saturation in bile and decreased gallbladder contraction from reduced caloric intake, which promotes cholesterol crystallization. However, functional gallbladder disorder following sleeve gastrectomy has not been well described. We present a case series of biliary dyskinesia following laparoscopic vertical sleeve gastrectomy.

Objectives:

Determine characteristics of patients diagnosed with biliary dyskinesia following laparoscopic vertical sleeve gastrectomy.

Setting:

Community hospital

Methods:

After Institutional Review Board approval, charts at a single institution were reviewed for patients diagnosed with biliary dyskinesia following sleeve gastrectomy from 2018-2023. Data collected include age, gender, BMI, ultrasound, cholecystokinin stimulated cholescintigraphy (HIDA-CCK), and medical comorbidities.

Results:

Out of 892 patients, 5 cases were identified (0.56%). Average age was 36±15.7 years. 80% were female. Preoperative BMI was 43.5±7 kg/m^2. Comorbidities include prediabetes (20%), hypertension (80%), dyslipidemia (20%). Primary presenting symptom was severe nausea. All cases had ejection fraction <35% on HIDA-CCK, and no cholelithiasis or sonographic evidence of cholecystitis. Time between sleeve gastrectomy and cholescintigraphy was 57.6±30.5 days. BMI at cholecystectomy was 34.3±6.5 kg/m^2. Final pathology of gallbladder demonstrated chronic cholecystitis for all cases.

Conclusions:

To our knowledge, this is the first report of biliary dyskinesia following laparoscopic sleeve gastrectomy. Pathophysiology of functional gallbladder disease after surgery is likely similar to gallstone formation. Because these patients have higher incidence of biliary dyskinesia compared to the general population, surgeons should consider this in their differential when managing severe postop nausea.

A059

Conversion of Sleeve to Total Gastrectomy With Roux-en-Y Esophagojejunostomy for Incidental Gastric Adenocarcinoma

Oscar Olavarria *HOUSTON TX*[1], Shinil Shah *Houston TX*[1], Peter Walker *Houston TX*[1]
UTHouston[1]

Patient is a 37-year-old female with a history of morbid obesity (body mass index of 40) who underwent an uneventful laparoscopic sleeve gastrectomy for weight loss. The patient was incidentally found to have a poorly differentiated adenocarcinoma with signet ring features, with tumor invading the lamina propria (pT1a) and negative resection margins on pathology. Surgical oncology and medical oncology were consulted and decision was made to proceed with surveillance. On surveillance esophagogastroduodenoscopy the patient was found to have persistent diffuse type poorly differentiated adenocarcinoma on random biopsy (there was no evidence of gastric masses). PET/CT and diagnostic laparoscopy with peritoneal washings did not reveal any evidence of metastases. Patient underwent neoadjuvant chemotherapy and was subsequently taken for a robotic assisted laparoscopic total gastrectomy with D2 lymphadenectomy and stapled end to side esophagojejunostomy. This video demonstrates the surgical steps of the operation including the reconstruction with the use of a circular EEA stapler for creation of the esophagojejunostomy. The patient had an uneventful recovery, was discharged on postoperative day 3, completed adjuvant chemotherapy and currently is with no evidence of disease. Pathology from the total gastrectomy revealed a T1N0 poorly differentiated adenocarcinoma, with negative margins and 0 positive out of 17 lymph nodes.

A061

Revision of Roux-en-Y Gastric Bypass With Resection of Gastrogastric Fistula From Previous Vertical Banded Gastroplasty

Oscar Olavarria *HOUSTON TX*[1], Francisco Guerra *TULSA OK*[1], Naila Dhanani *Houston TX*[1], Shinil Shah *Houston TX*[1]
UTHouston[1]

Patient is a 63-year-old female with past medical history of hypertension, hyperlipidemia, asthma and history of obesity for which she underwent a vertical banded gastroplasty (VBG) several years ago and subsequently underwent a revision of the VBG to a Roux-en-Y gastric bypass in 2020. The patient presented to our clinic with nausea, vomiting, halitosis, regurgitation, dysphagia and weight regain (body mass index of 37). Preoperative imaging included an upper gastrointestinal series and a computed tomography of the abdomen and pelvis with oral contrast which revealed passage of contrast through a gastrogastric fistula into the gastric remnant. We believed the gastrogastric fistula was a consequence of the VBG and was not adequately addressed on her first revisional surgery. Preoperative esophagogastroduodenoscopy confirmed the gastrogastric fistula and additionally found an acute marginal ulcer. The patient was taken to the operating room for a robotic assisted laparoscopic revision of the Roux-en-Y gastric bypass. The video describes the resection of the previous gastrojejunostomy along with the resection of the gastrogastric fistula and creation of a new gastrojejunostomy. The patient had an uneventful recovery, was discharged on postoperative day 2 and was last seen at 9 months postoperative doing well and with a body mass index of 31.

A062

Challenges in the treatment of super super obesity

Alvaro Ducas *Chicago IL*[1], Paula Lopez *Chicago IL*[1], Alberto Mangano *Chicago IL*[1], Beatriz Figueroa-Diaz *Chicago IL*[1], Emiliano Manueli Laos *Chicago IL*[1], Chandra Hassan *CHICAGO IL*[1]

University of Illinois at Chicago[1]

Bariatric surgery is the most effective treatment for obesity, especially in those patients with super super obesity (BMI > 50 kg/m2). The treatment of patients with this condition is a challenge for all the health care team. We are presenting a 33-year-old patient with tracheostomy, who is immobile since June 2019, history of BMI 142, type 2 diabetes mellitus, end stage renal disease, deep venous thrombosis and pulmonary embolism that requires Warfarin every day. Comes to the emergency department due to pain in both legs, bilateral lower extremities cellulitis and anemia. Treated by interdisciplinary teams involving family medicine, cardiology, pulmonology, infectious disease, ethics and consulted to general surgery for bariatric surgery evaluation. Patient underwent robotic assisted sleeve gastrectomy and discharged 7 months later due to social reasons for rehabilitation. Follow up shows a percent excess body weight loss of 54.9% with a BMI of 77.3 kg/m2. Treatment of super super obesity is challenging, needs a multidisciplinary team that can involve all aspects of the patient. Hospital infrastructure such as OR equipment needs to be well prepared for the correct management of the patient. Treating these patients makes a life change being able to modify not only metabolic aspects of life but also quality of their daily life.

A063

Same Day Bariatric Surgery: Retrospective Evaluation of Revisional Bariatric Surgery in a Single Institution

Carlos Delgado *Orlando FL*[1], Daniel Farinas [1], Eric Stevens [1], Sarah Bushrow *Winter Park FL*[2], Gustavo Bello-Vincentelli [1]
AdventHealth[1] Loma Linda University[2]

Background:
Bariatric Surgery has been a safe and effective treatment for morbid obesity for many decades. As we continue to learn from our experiences, there has also been an increased incidence of revisional bariatric surgery. This includes Laparoscopic gastric banding (LGB) to Laparoscopic Sleeve Gastrectomy (LSG) or Laparoscopic Roux-en-Y Gastric Bypass (LRYGB), or LSG to LRYGB among others. Revisions can occur secondary to unsatisfactory weight loss, complications or long term sequalae such as worsening reflux. This study aims to determine whether revisional bariatric surgery can be done safely as a same day discharge procedure. We will perform a retrospective review of same-day bariatric surgeries performed between October 2021 and December 2023. Our primary study endpoints included the 30-day rate of ED visits, readmissions, reoperations, mortality and morbidity based on the Clavien-Dindo classification. Several statistical analyses were performed, including a non-inferiority analysis with an assigned a non-inferiority margin of 5% when compared to the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) Semiannual Report (SAR).
Results: Out of 47 patients included, 17 (36.1%) underwent LGB to LSG, 9 (19%) underwent LGB to LRYGB, and 21 (44.7%) underwent LSG to LRYGB. We are still in the process of gathering our data.

Conclusion: We hope to show that same day revisional bariatric surgery non-inferior with regards to the rate of readmissions, reoperations, morbidity and mortality when compared to the nationally accepted rates for these specific procedures reported in the MBSAQIP SAR.

A064

Giant Internal Hernia Following Roux-en-Y Gastric Bypass

Benjamin Palleiko *Worcester MA*[1], Nicole Cherng *Worcester MA*[1], John Kelly *Worcester MA*[1]
UMass Chan Medical School[1]

Development of an internal hernia is a rare, but serious, complication after Roux-en-Y gastric bypass surgery. In this video, we present the case of a 71 year old male with a history of Roux-en-Y gastric bypass 15 years ago and recent perforated marginal ulcer requiring Graham patch repair. The patient presented to the emergency department with three days of epigastric abdominal pain. Given the patient's recent perforated marginal ulcer repair, he was initially managed with a proton pump inhibitor, sucralfate, pain medication, and an NPO diet. However, a subsequent computed tomography scan showed findings suggestive of internal hernia and he was taken emergently to the operating room for a diagnostic laparoscopy. Upon entry into the abdomen, a giant retro-Roux hernia was visible, along with congested mesentery and loops of ischemic bowel. The hernia was reduced laparoscopically, and the bowel was returned to its proper position. The hernia defect was closed with a non-absorbable suture. The patient recovered well and one month after follow-up was tolerating a regular diet.

This video offers several important learning points. The first is the lifelong risk of internal hernias that accompany Roux-en-Y gastric bypass. The second is the difficulty of diagnosing internal hernias, particularly in patients with other abdominal pathology, as seen in this patient. Finally, given the patient's recent Graham patch repair, it brings into question if it should be routine to evaluate potential hernia defects during other abdominal surgeries for gastric bypass patients.

A065

Charting Progress: A Decade Survey of Influential Literature in Metabolic Surgery

Florina Corpodean *New Orleans LA*[1], Michael Kachmar *Baton Rouge LA*[1], Iryna Popiv *Baton Rouge LA*[1], Sammy Saqer *Washington DC*[2], Devan Lenhart *New Orleans LA*[1], Michael Cook *New Orleans LA*[3], Vance Albaugh *Baton Rouge LA*[1], Philip Schauer *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] Howard University College of Medicine[2] LSU-HSC[3]

Introduction*:*
As the field of metabolic surgery (MS) continues to undergo substantial growth, the need to identify seminal studies within this domain becomes increasingly crucial. This study aims to provide a comprehensive 10-year update on the most frequently cited articles in MS.

Methods*:*
Utilizing the SCOPUS database, we identified the top 100 most cited articles in MS in 2023. Beyond assessing the most frequently cited works, this study also examines articles with the most citations per year and explores the citation trends of the three most cited works.

Results*:*
The average number of citations per article increased from 383.5 in 2013 to an impressive 889.5. Forty-four of the papers from the original top 50 list were included in the current list. Schauer's STAMPEDE trial demonstrated the most substantial increase in ranking from 2013. Most of the articles were published in 2004 (n=10). The most studied procedure overall was Roux-en-Y gastric bypass (RYGB), featured as a primary topic or subtopic in 48% of the articles.

Discussion*:*
As the landscape of MS expands, the reassessment of top-cited scientific articles becomes imperative. Many of the articles listed in 2013 persisted in the 10-year update, mirroring the significant growth observed in the MS field during the early 2000's. The increased citation count is likely indicative of the expanding influence of MS research. Despite RYGB maintaining its status as the most studied procedure, a noticeable uptick in interest in sleeve gastrectomy post-2009 is evident.

A066

Outcomes for Conversion of a Roux en-Y Gastric Bypass to a Biliopancreatic Diversion with Duodenal Switch

Micah Mabe *Shillington PA*[1], Stephan Myers *Sinking Spring PA*[1], John Fam *Wyomissing PA*[1]
Tower Health[1]

Serious weight regain or inadequate weight loss following a gastric bypass operation is a challenging problem. In an attempt rectify this, 15 patients were converted from a Roux en-Y gastric bypass to a Biliopancreatic Diversion with duodenal switch and evaluated in a retrospective review. The average age was 52.6 years with 86.6% female. 12 were single anastomosis (SADI) with 3 classic dual anastomoses. 11 cases were completed robotically and 4 had planned open operations. The average operative time was 329.8 minutes (range 239-410 mins). 10 of the 15 were found to have an inadequate gastric pouch from the initial gastric bypass on endoscopy and the gastric reconstruction was accomplished with a jejunal interposition. The average weight loss at 1 year was 62 lbs with BMI decreased by an average of 10.6. The average percent excess weight loss was 36.7% with a average total body weight loss of 19.7%. There were no mortalities. 5 patients had complications with 3 leaks (20%) of which one required a return to the OR, 1 Pulmonary embolism and 1 surgical site infection. The mean LOS was 3 days for those without a leak and 30 days if a leak occurred for an overall average LOS of 8.9 days. Conclusion: Conversion of a RYGB to a BPD-DS is an effective but high risk solution for this difficult problem.

A067

Multiple Regression Analysis Using Body Mass Index as a Predictor in the Bariatric population

Johnny Wen 1, Lena Wen (Torrance, CA), Houman Solomon1 (Medical Director Bariatric Wellness Center)

1 Providence Medical Hospital, Torrance, CA

Johnny Wen *Torrance CA*[1], Lena Wen *Torrance CA*[2], Houman Solomon *Torrance CA*[1]
Providence Hospital[1] Torrance[2]

Background:
Health concerns related to obesity can impact potential patients seeking bariatric surgery. These health factors, such as diabetes, hypertension, and cardiovascular conditions are common co-morbid obesity concerns. Research into variables and conditions that may affect presurgical bariatric patients' decision to pursue comprehensive bariatric services have been studied in this single site clinic.

Methods:
Forty one patients ranging in age from 19 years to 68 years (33 females and 8 males, mean age 42.74 years with mean education of 13.41 years, (sd = 1.95). Group average BMI (kg/m2) = 47.32 Patients were administered a standardized assessment tool prior to their surgical procedure.

Results:
Using a multiple regression analysis, body mass index (kilograms) was a predictor of somatic/health concerns, $F(4, 30) = 3.243$, $p < .05$. R squared was 0.30 suggesting 30% of the variance of the dependent variable is explained by the independent variable. Adjusted R = 20% suggesting that BMI was highly associated with reported generalized somatic concerns. No other independent variables entered the regression model.

Conclusions:
As stated, current BMI was a strong predictor of health concerns among our pre-surgical bariatric population. The bariatric population shows concern regarding their physical health, medical conditions, and the cognitive awareness of sustaining healthy lifestyle remains of concern. The ability to independently identify these somatic health concerns supports the importance of assisting this patient group with health options offered by their bariatric surgeon and bariatric surgical team.

A068

Decreasing the Time to Surgery for Patients Undergoing Bariatric Surgery: Experience from a Single Academic Center

Caitlin Russell *Staten Island NY*[1], Olivia Haney *Staten Island NY*[1], Chris Esposito *Staten Island NY*[1], Dillon Rogando *New York NY*[2]
Northwell Staten Island Univ Hospital[1] CUNY School of Medicine[2]

Background:
Bariatric surgery is one of the safest types of general surgery performed in the United States, largely due to the extensive screening process that patients undergo prior to surgery. This screening process, however, is lengthy and can be a roadblock for patients seeking the procedure. To address this limitation, we changed the preoperative screening process at our single academic center in 2022 from mandatory cardiac and pulmonary clearances to selective clearance requirements based on STOP-BANG and MET screening tools. This study presents our experience in adapting a scoring-system-based preoperative process for bariatric surgery patients.

Methods:
We conducted a retrospective analysis of bariatric surgery patients at a single center from 2017 to 2023 with the hypothesis that risk-based screening in the preoperative process would safely reduce the time from consultation to surgery.

Results:
Our adaptation of a scoring system-based approach produced a significant impact on the preoperative process length with the average time to surgery decreasing by over 100 days ($P < 0.02$). There was no statistically significant change in morbidity, mortality, the rate of readmission, or the rate of reoperations with the new preoperative protocol.

Conclusion:
This study highlights the successful integration of a scoring-system-based preoperative process in bariatric surgery patients at a single academic center. Our findings suggest that such an approach decreases time to surgery without compromising patient safety. Further research and prospective studies are warranted to assess the generalizability of these findings in diverse clinical settings.

A069

Second-stage Duodenal Switch for Sleeve Gastrectomy failure: Long-term follow-up

Jeffrey Silverstein *Quebec* [1], Laurent Biertho *Quebec* [1], Francois Julien *Québec* [1], Annie Lafortune *Quebec* [1], Leonie Bouvet-Bouchard *Quebec City* [1], Simon Marceau *Quebec* [1], Stefane Lebel *Quebec* [1], Frederic Simon-Hould *Quebec* [1], Odette Lescelleur *Quebev* [1], Andre Tchernof *Quebec City* [1], Ahmed Jad *Quebec* [1], Julie Carro Valdes *Brussels* [1]
Quebec Heart and Lung Institute[1]

Introduction:
Sleeve gastrectomy (SG) represents the predominant bariatric surgery worldwide. However, a significant portion of patients experience insufficient weight loss (IWL) or weight regain (WR) after SG. We present our findings on second-stage Duodenal Switch (2sDS) after SG for patients with IWL or WR.

Methods:
This is a single-center cohort analysis from a tertiary care center with data from a prospectively maintained database of all patients undergoing metabolic surgery. Patients who underwent 2sDS, with 100cm common channel and a 150cm alimentary limb between August 2019 and May 2022, with a minimum follow-up of 2 years were included. Primary outcomes were excess weight loss (EWL), total weight loss (TWL), and BMI. Secondary outcomes were changes in obesity related comorbidities, protein malnutrition, and mortality. Data is reported as Mean ±Standard deviation or percentage.

Results:
A total of 175 patients underwent 2sDS, with an initial BMI of 43±0.6g/m^2, sex ratio (F/M) of 115/60%, age of 46.5±0.8 years and follow-up of 65.4 months. Weight prior to SG was 148.8±2.6kg, 119.3±1.9kg prior to 2sDS and a last weight at 91.3±1.6kg with TWL of 38.1%. The remission rate of type 2 diabetes was 88.5%, obstructive sleep apnea 57%, hypertension 59.8%, and dyslipidemia 71.6%. The rate of protein malnutrition (Albumin under 25g/l) was 1.1%. There were no 90-day mortalities but 3 (1.7%) long term.

Conclusion:
Second-stage DS offers excellent weight loss and remission rate of comorbidities, for patients experiencing IWL or WR after SG. This option should be considered as a treatment option for failed SG patients.

A070

Contraceptive use among female Medicaid patients who underwent bariatric surgery in the United States

Daisuke Goto *Holliston MA*[1], John Grunden *Houston TX*[1], Bhavya Sree Burugapalli *Jersey city CA*[2], Krishna Tangirala *Jersey City NJ*[1], Lixia Yao *Chalfont PA*[3]
Organon[1] Riya Soft Solutions Inc[2] Polygon Health Analytics LLC[3]

Background:
Current guidelines recommend patients undergoing bariatric surgery should wait at least 12 months before conceiving so the fetus is not affected by rapid maternal weight loss. The objective of this study was to describe contraceptive use among reproductive-aged Medicaid patients who underwent bariatric surgery.

Methods:
We identified female Medicaid patients 18-45 years old who underwent bariatric surgery between January 2017 and September 2021 from a large insurance claims database (Merative MarketScan). We analyzed patients who had a minimum of 1 year of both pre- and post-surgery follow-up and were not known to be infecund or sterilized. We used CPT, HCPCS, ICD-10, and NDC codes to identify claims for surgeries and pharmacy benefits for prescription contraceptives.

Results:
Among 7,047 patients identified, most patients did not receive any prescription contraceptives in the year before or after surgery (71% and 68%, respectively; $p<0.01$). Long-acting reversible contraceptives (LARC) were the most commonly used contraceptive options (14% before and 17% after surgery; $p<0.01$); followed by oral contraceptives (14% before and 13% after surgery; $p<0.01$). After surgery, 77% and 41% of patients aged 35-45 and 18-24, respectively ($p<0.01$), did not have evidence of prescription contraceptive use, 11% and 32% of patients aged 35-45 and 18-24 ($p<0.01$) used LARC after surgery.

Conclusion:
Significant underutilization of effective contraception, including LARC, was observed in reproductive-aged female Medicaid patients after bariatric surgery, potentially posing high pregnancy-related risks to the patients and their fetus. The underutilization was even more severe in late-reproductive age groups, reaching 77% in patients aged 35-45.

A071

Get the GIST: Reverse Sleeve Gastrectomy Resection of Lesser Curve Gastrointestinal Stromal Tumor

Taylor Williams *Fort Eisenhower GA*[1], Byron Faler *Evans GA*[2], Marcos Aranda *Fort Eisenhower GA*[2], Jonathan Livezey *Fort Eisenhower GA*[1]
Dwight D. Eisenhower Army Medical Center[1] Dwight D Eisenhower Army Medical Center[2]

Introduction: Gastrointestinal stromal tumors (GISTs) are the most common sarcoma of the gastrointestinal tract. Most are found incidentally, located within the stomach, and involve KIT mutations. Possible symptoms include abdominal pain, early satiety, and gastrointestinal bleeding secondary to tumor friability. Size, location, and mitotic index affect prognosis. Primary resection is the treatment of choice if unlikely to result in significant morbidity; otherwise, neoadjuvant imatinib is indicated. Lesser curve gastric GIST resection is more challenging due to proximity to the vagus nerve, left gastric artery, and gastroesophageal junction.

Case: We present a 67-year-old female with morbid obesity, atrial fibrillation on anticoagulation, and hypertension presenting with gastrointestinal bleeding, initially managed with embolization of the left gastric artery. Workup revealed a 15cm solid tumor seemingly originating from the lesser curvature of the stomach, with possible liver involvement and encroachment on the gastroesophageal junction. Biopsy confirmed diagnosis of GIST. Neoadjuvant imatinib was begun with initial size regression to 12cm, but eventual stabilization; the decision was made to proceed to laparoscopic surgery. Intraoperatively, there was no involvement of the liver or gastroesophageal junction. Wedge resection of the tumor resulted in a "reverse sleeve gastrectomy" with negative margins. The patient continued adjuvant imatinib with no evidence of recurrence or metastatic disease at 10 months post-operatively. Additionally, she lost 18kg and discontinued her antihypertensive medication as a result of this procedure.

Discussion: This case is notable for our multidisciplinary management of this large GIST and ability to maintain a minimally invasive approach with a lesser curve tumor.

A072

Influence of class attendance and outside class activities on weight loss in an online corporately sponsored weight loss program

Sasha Clynes *Dallas TX*[1], Brian Woodcock *75251 TX*[1], Tim Church *Dallas TX*[1]
Wondr Health[1]

Objective:
To examine the impact of in-class and outside-class program components on weight loss in an online weight loss program.

Methods:
Participants (N=28,833, mean age 50, 77% women, 77% Non-Hispanic White; 60% with obesity, 32% with overweight) were from employers and health plans. We examined percent weight loss at 12 weeks by class attendance (online) and outside-class activities (OCA; skill checks, meal logging, online community participation, goal setting, physical activity tracking, and weight logging). Class attendance tertiles (lessons/week) were: low 0 – 3.3; moderate 3.4-5.5 and high ≥5.6. OCA were classified into even tertiles (low=T1, moderate=T2, high=T3) and a composite score was calculated.

Results:
Participants in T3 OCA lost more weight than those in T1 OCA, regardless of class attendance. Weight loss for T3 vs T1 was 5.4% vs. 2.7% for the high in-class tertile and 5.2% vs 2.5% for the moderate in-class tertile ($p<0.001$). In contrast, class attendance had less influence: Weight loss for high vs low in-class tertiles was 3.7% vs. 3.6% for T2 OCA, and 2.7% vs. 2.5% for T1 OCA ($p<0.001$). Weight logging was associated with the greatest weight loss. For those who weight logged ≥4x weekly vs <1.5x weekly, the absolute weight loss difference was 1.53% ($p<0.001$). Other OCA were only modestly associated with weight loss.

Conclusions:
Participation in OCA predicted weight loss whereas in-class attendance did not. Those in the highest OCA tertile had 50% greater weight loss at 12 weeks than the lowest OCA group. Weight logging predicted greatest weight loss.

A073

Operating at the Extreme: A Multi-Center Experience on the Safety and Efficacy of Metabolic Surgery at BMI ≥70

Florina Corpodean *New Orleans LA*, Michael Kachmar *Baton Rouge LA*[1], Iryna Popiv *Baton Rouge LA*[1], Devan Lenhart *New Orleans LA*[1], Michael Cook *New Orleans LA*[2], Vance Albaugh *Baton Rouge LA*[1], Philip Schauer *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

***Introduction**:*
The safety and efficacy of metabolic surgery in patients with extreme obesity (BMI ≥ 70) is not well described. The aim of this study was to determine the outcomes of metabolic surgery in this high-risk group at two academic medical centers.

***Methods**:*
An analysis encompassing 84 patients with BMI ≥70 from two institutions was conducted. Data included patient demographics, 30-day postoperative outcomes, and weight loss at different intervals (30 days, 6 months, 1 year). Additionally, rates of emergency department (ED) utilization, readmission, and reoperation in the first postoperative year were examined.

***Results**:*
Most patients were black (66.7%) and female (86.9%) with a mean age of 41.7 years and mean BMI of 76 (Table 1). Major comorbidities were common. Most underwent laparoscopic sleeve gastrectomy (SG) (88.1%). Postoperatively patients exhibited a marked decrease in BMI (7.84% at 30 days, 20.13% at 6 months, and 26.83% at 1 year). The average length of stay was 1.79 days and comparable across procedure types (p=.997). While 30-day complications were minimal (0.76%), 14.4% of patients had ED visits at 30 days, escalating to 25% at 1 year. Readmission and reoperation rates for one year were 6.56% and 3.23%, respectively, thirty-day mortality was 0%.

***Discussion**:*
Analysis of two academic centers demonstrated low rates of 30-day complications but increased readmission rates and ED utilization in this high-risk population. Despite increased resource utilization, the study suggests that BMI $\geq$70 alone should not be a deterrent for metabolic surgery, emphasizing the need for nuanced care in this expanding demographic.

A074

A Novel Approach to Increasing Mobility in the Post-Operative Bariatric Surgical Patient.

Mindy Hinkel *Downers Grove IL*[1], Jeffrey Rosen *Downers Grove IL*[2], Allen Mikhail *Downers Grove IL*[2], Julie Bialas *Downers Grove IL*[2]
AdvocateAurora Good Samaritan Hospital[1] Advocate Good Samaritan Hospital[2]

Title:
Novel Approach to Increasing Mobility in Post-Operative Bariatric Surgical Patient

Objective:
Use of an under-desk elliptical device on a bariatric surgical patient will increase mobility and decrease risk of a venous thromboembolism.

Relevance/significance:
Populations with obesity, undergoing bariatric surgery, are at increased risk for decreased mobilization and increased risk for VTE events. The ideal environment would use leg muscles to generate SCD effect of activating endothelial Tissue Plasminogen Activator. Using the device to supplement the use of VTE prophylaxis.

Strategy/Implementation/Methods:
Sample: All admitted patients undergoing Metabolic surgery
Intervention: Postop, patients are ambulated within two hours of arrival from PACU. Sitting patients have the device placed in front of them. Patients receive instructions on using the elliptical device at the pre-operative visit.
Data Collection: Patients are provided with logs to write down the amount of time the device was used. Each shift the amount of use, time, distance, steps are documented. Audits are performed.
Analysis: Collected data is provided at monthly meetings.
Evaluation/Outcomes/Results: Data collected, June 2022- August 2023: Patients completed an average of 11.96 miles, an average time of 47.3 minutes, and an average number of strides 2320.8 in the first 14 months of implementation. Patients reported "Ease of Use" score of 1.17, with 1 being easy to use and 3 difficult to use. There were no recorded incidents of post-operative VTE in the MBSAQIP data registry, from our hospital.

Conclusions/Implications:
Using an under-desk elliptical device increases mobility, decreases VTE risk, this novel approach is reproducible and quantitative.

A075

Overview of Health Benefits and Adverse Effects of Bariatric Surgery

Hassan Heshmati *Anthem AZ*
Endocrinology Metabolism Consulting, LLC

Background: Bariatric surgery is indicated in people with a body mass index (BMI) ≥ 40 kg/m^2 or a BMI ≥ 35 kg/m^2 with at least one comorbidity. The procedures can be restrictive (e.g., sleeve gastrectomy), malabsorptive (e.g., biliopancreatic diversion with duodenal switch), or mixed (e.g., Roux-en-Y gastric bypass). Bariatric surgery has multiple health benefits but also some negative outcomes. This review provides an update on the health consequences of bariatric surgery.

Methods:
A systematic search of literature was conducted using the search terms morbid obesity, comorbidities, bariatric surgery, health benefits, and adverse effects.

Results:
Bariatric surgery induces significant and sustained weight loss and significantly reduces the comorbidities of obesity (e.g., type 2 diabetes, hypertension, and dyslipidemia). Roux-en-Y gastric bypass appears to have better efficacy compared to most other procedures. Bariatric surgery promotes improvement of richness, composition, and functionality of gut microbiome, independently of weight loss, and this can further enhance the weight loss. Also, bariatric surgery significantly reduces the incidence of new-onset type 2 diabetes, hypertension, and dyslipidemia. The mortality rate of bariatric surgery is less than 1%. Adverse effects include procedure-related complications and malabsorption associated with hormonal disturbances responsible for mineral and vitamin deficiencies (e.g., low iron and vitamin D), hypoglycemia, and osteoporosis with fracture risk.

Conclusion:
Bariatric surgery is the most effective method for obtaining sustainable weight loss and reducing the obesity-related comorbidities in people with morbid obesity. It also lowers the incidence of new comorbidities. The nutritional deficiencies caused by bariatric surgery require adequate therapy and monitoring.

A077

Robotic Sleeve Gastrectomy vs. Endoscopic Sleeve Gastroplasty for Morbid Obesity: A Systematic Review and Comparison

Yusuf-Zain Ansari *Mount Laurel NJ*[1], Tarek Elsabbagh *Ambler PA*[1], Yuval Shimoni *Allentown PA*[1], Faiz Siddiqui *Philadelphia PA*[1], Vijay Sivan *Spring City PA*[1], Rupesh Prasannakumar *Holliston MA*[1], Ramdhan Russell *Wayne PA*[1], Aley El Din *Phoenixville PA*[2]
Temple University[1] Crozer Health[2]

Background

Within bariatric surgery, endoscopic sleeve gastroplasty (ESG) and robotic sleeve gastrectomy (RSG) have emerged as minimally invasive procedures for weight loss and metabolic management. While both offer benefits for obesity, the comparative effects in terms of weight loss, efficacy, and safety remain uncertain.

Methods

A systematic search of PubMed/MEDLINE, and Cochrane Library was conducted to collect both prospective and retrospective studies assessing the effectiveness and safety of RSG and ESG in treating morbid obesity. Regression analysis was performed.

Results

We collected eleven studies (1182 patients) evaluating RSG and fourteen studies (3077 patients) evaluating ESG. Average patient ages for RSG were 42.79±11.31 years (63.9% females) with preoperative BMI of 47.81+8.00 and 38.52±9.69 years (86.1% females) with BMI of 35.20±4.29 for ESG. Mean operation time was 104.93 minutes for RSG, and 68.4 for ESG. RSG yielded a %EWL of 51.26% at 18 months, while ESG yielded 73.01%. Complication rates were 2.71% (32/1182) for RSG and 8.88% (273/3077) for ESG, while reoperation rates were 0.59% for RSG and 1.34% for ESG. Average hospital stays were 2.71 days for RSG and 0.68 days for ESG.

Conclusion

The long-term clinical results of RSG and ESG for morbid obesity show similarly favorable outcomes. ESG has shorter operative times and hospital stays, but more complications. Additional research with larger cohorts and randomized trials is needed to determine the preferred procedure.

A078

The Impact of GLP-1 Receptor Agonists vs Medical Nutrition Therapy on Sarcopenia.

John P. Troup, Ph.D. Middletown, CT1 , Megan Koscinski, MS,RD, Middletown,CT1 Blueroot Health Institute1

John TROUP *Middletown CT*[1], Megan Koscinski *Middletown CT*[2]

Blueroot Health Institute[1] Blueroot Health[2]

Background:

The use of GLP-1 Receptor Agonist (GLP-1RA) are effective for the management of Type II Diabetes, and now used in patients without diabetes and BMI's as low as 28kg/m^2. Recent studies have reported body weight loss and changes in body composition, but changes in muscle mass (sarcopenia) has not been a focus. Specific effects of GLP-1RA on sarcopenia vs Medical Nutrition Therapy (MNT) have not been reported.

Methods:

A critical review of the literature selected relevant published articles from January 2015 to August 2023; selection was made if randomized control human studies. Key metrics of Fat Mass (FM), Fat Free Mass (FFM), Skeletal Muscle Mass (SMM), Total Bodyweight Change (BW) were assessed. In total, 5 GLP1-RA and 4 MNT studies were included.

Results:

Patients were Type II Diabetics and BMI's $\geq$ 30 studied over 12 to 26 weeks. In GLP-1RA studies average weight loss was 20% (range of 6 to 25%) and an average 12% of muscle mass loss (range of 5 to 20%). Muscle mass loss as a percent of total body weight loss ranged from 15 to as high as 40%. MNT in 12 weeks averaged 10% of total body weight (range of 5 to 15% weight) with no loss in muscle mass.

Conclusions:

These data suggest that sarcopenia occurs in patients receiving GLP-1RA and larger than that with MNT. While GLP-1RA's support significant total weight and fat mass loss, MNT should be considered for co-therapy to minimize sarcopenia. Current co-therapy studies are underway.

A079

Recurrent Adult Retrograde Intussusception after Roux-en-Y Gastric Bypass

Gabriel Diaz-Pagan *Kissimmee FL*
UCF/HCA Florida Orlando Consortium

Adult intussusception is a diagnostic challenge given its non-specific presentation and rarity with a prevalence of only 5% of all intussusceptions and 1% of all bowel obstructions. Malignant neoplasms are the most frequent etiology, accounting for 90% of intussusceptions. We present a case of a 52 year old woman with history of Roux-en-Y gastric bypass in 2006, complicated by small bowel intussusception requiring revision in 2015, who arrived to the ED complaining of postprandial nausea and abdominal pain. CT A/P showed a retrograde intussusception occurring in the biliopancreatic limb (BPL). In this case, the patient was taken to the operating room and a midline laparotomy was performed. A jejunojejunal retrograde intussusception of the BPL was confirmed. The alimentary and biliopancreatic limb anastomoses to the common channel were then resected. Reconstruction was performed between the distal small bowel and alimentary limb in an antiperistaltic fashion. Fifty cm distal to this anastomosis, a second isoperistaltic small bowel anastomosis between the common channel and the BPL was created. A gastrostomy tube was placed in the remnant stomach to aid in post-operative nutrition optimization. Post-operative recovery was uneventful. Patient was discharged on postoperative day 4 on nightly tube feeds. At 2-week follow-up, the patient reported tolerance of diet, no recurrent pain, and 4 lbs weight gain. With the recent increase in gastric bypass surgeries, bowel anastomoses should be considered leading points for initial and recurrent intussusceptions. Studies evaluating outcomes of isoperistaltic vs antiperistaltic configurations could help establish guidelines to minimize long-term post-operative complications.

A082

Using Genetics to help improve outcomes after bariatric surgery

Franchell Richard-Hamilton *Kingsland TX*
NeuroSwitch Weight Loss

There is a significant amount of individual diversity in the amount of weight loss following bariatric surgery. Clinicians who treat patients with extreme obesity now have access to a novel genetic tool that can predict and eventually improve the outcomes of bariatric surgery. It has been found that as opposed to having one or none of the DRD4 risk allele, having two copies of the allele could be a useful genetic prediction for weight loss following surgical intervention. It is likely that the hypodopaminergic activity that corresponds to this DRD4 gene polymorphism, being an addictive gene. In an effort to make a meaningful contribution to this ongoing line of inquiry, we carried out a qualitative investigation within the context of our own clinical work.

Results

We evaluated 238 individuals who received bariatric surgery, with a particular emphasis on those patients who were suffering with weight regain. This is characterized as regaining more than 30 percent of the weight they had lost. Remarkably, 95 of the 102 individuals who had experienced such a weight regain were found to contain the DRD4 gene, a variant of the genome that is related with compulsive eating behaviors.

Conclusion

This findings suggest that genetic variables may play a part in determining weight loss success after a bariatric surgery. Understanding genetics can help predict post-op success and can help the physician decide if additional treatment modalities will be needed and initiated earlier.

A083

Roux-En-Y Gastric Bypass Conversion Compared To Ligamentum Teres Cardiopexy For Post Vertical Sleeve Gastrectomy Gastroesophageal Reflux

Fiona Dore *Worcester MA*[1], Emily Mackey *Worcester MA*[1], Danielle Li *Worcester MA*[1], Allison Crawford *Worcester MA*[1], Donald Czerniach *Worcester MA*[1], Richard Perugini *Worcester MA*[1], John Kelly *Worcester MA*[1], Nicole Cherng *Worcester MA*[1]
University of Massachusetts Chan[1]

Introduction

Vertical sleeve gastrectomy (VSG) is the most performed bariatric surgery in the United States, however, it is associated with an increased risk of gastroesophageal reflux disease (GERD) when compared to roux-en-y gastric bypass (RYGB).

We previously demonstrated success with treating post-VSG patients who have medically refractory GERD with a ligamentum teres cardiopexy procedure (LT), demonstrating an 81% reduction or cessation in antacid medication requirements.

Methods

In this retrospective chart review, our institution's outcomes for patients who underwent RYGB conversion after VSG from 2018 to 2022 were compared to those who underwent LT after VSG. Pre-operative GERD disease burden and changes in PPI requirements were reviewed. Mann Whitney U tests and Fisher Exact tests were calculated using Microsoft Excel.

Results:

This study identified 24 patients status-post VSG who underwent RYGB compared to 76 patients status-post VSG who underwent LT for GERD disease burden. There was no difference between the two groups for age, gender distribution and baseline median BMI.

Both RYGB conversion (88%, 21 of 24) and LT patients (77%, 50 of 65) had improvement in reflux symptoms at 6 weeks post-op ($p = 0.38$). For RYGB patients, 29% had improvement in PPI usage at 1-year postoperative compared to 68% following LT ($p = 0.004$).

Conclusions:

Ligamentum teres cardiopexy appears to provide comparable, if not better, improvement in self-reported GERD symptoms when compared to RYGB conversion in patients with intractable GERD following VSG at both the early and 1-year postoperative periods.

A084

Pregnancy after bariatric surgery: Persistent obesity at conception influences peripartum outcomes more than the type of operation

Miaoli Bloemhard *Sacramento CA*[1], Arianna Schmulbach *Sacramento CA*[1], Kanksha Koti *Livermore CA*[1], Charuthi Arul *Mountain House CA*[1], Shushmita Ahmed *Sacramento CA*[1], Mohamed Ali *Sacramento CA*[1], Victoria Lyo *Sacramento CA*[1]
University of California Davis[1]

Background:
Women of reproductive age comprise one-third of patients undergoing bariatric surgery (BS). However, there are limited data on risks of pregnancy in post-BS patients. We examined factors that contribute to pregnancy and peripartum complications in this population.

Methods:
A retrospective chart review of singleton, live-birth pregnancies in post-BS patients from 2009-2023 was performed. Mother and neonate weight, pregnancy comorbidities, and peripartum outcomes were collected. Small and large for gestational age (SGA/LGA), pre-term delivery, and obesity were defined using standard criteria. Differences were calculated via chi-square and t-testing.

Results:
We evaluated 127 pregnancies in 106 women. Most patients underwent malabsorptive operations (70.6%: 72 RYGB, 3 BPD-DS) versus restrictive operations (29.3%: 28 VSG, 3 AGB). Mean age at conception was 32.1±4.9 years. Mean BMI at BS and conception were 46.9±9.5kg/m^2 and 34.1±8.1kg/m^2, respectively. Median time to conception was 38.5 (IQR 41.5) months. Malabsorptive operations yielded greater mean BMI decrease (-13.41 vs. -10.9kg/m^2, p = .02), but was not associated with differences in pregnancy-specific rates of hypertension, diabetes, SGA/LGA neonates, pre-term delivery, or cesarean section (Table). Pre-pregnancy obesity (BMI≥30kg/m^2) versus BMI<30kg/m^2 had higher rates of peripartum hypertension (36.8 vs 16.3%, p = .02), diabetes (44.7 vs 16.3%, p = .005), LGA neonates (36.0 vs 16.7%, p = .03), and cesarean section (52.6 vs 16.3%, p < 0.001).

Conclusion:
While peripartum complications were not associated with type of BS, persistent post-BS obesity increased patient risk for peripartum complications. Support to help post-BS patients achieve lower pre-conception weight can likely reduce peripartum complications.

A090

Dissemination of the 2022 ASMBS and IFSO Guidelines for Bariatric Surgery: what has reached primary care providers?

John Hulse *Charleston SC*[1], Richard Slay *Charleston SC*[1], Mary Kate Bryant *Charleston SC*[1], Thomas Byrne *Charleston SC*[1], Rana Pullatt *Charleston SC*[1]
Medical University of South Carolina[1]

Only 1% of Americans eligible for metabolic and bariatric surgery (MBS) receive MBS. Prior studies have analyzed primary care provider (PCP) referral patterns and perceptions of MBS as a potential barrier to increasing MBS uptake. However, less data exists regarding PCP knowledge of MBS indications and outcomes. Following the 2022 update to the indications for MBS by the ASMBS and IFSO, the number of eligible patients is only expected to increase. We sought to evaluate PCP knowledge regarding the existence of the 2022 ASMBS and IFSO updated guidelines, MBS indications, and MBS outcomes.

An 11-question survey was emailed to primary care residents, advanced practice providers, and faculty at a single institution. Of 151 surveys distributed, 39.7% responded (n=60). 95% were unaware of the 2022 updated guidelines. On multiple choice questions, only 16.3% correctly identified the average weight loss from MBS, and 46.8% correctly answered the diabetes remission rate following MBS. Trainee answers were not statistically significant from practicing PCPs. Fifteen of the respondents had referred a patient for MBS, but this subgroup did not perform significantly better on the assessment. 72.3% of respondents reported inadequate education regarding MBS during their training, and 85.1% were interested in additional education.

We present the first assessment of PCP MBS knowledge since the release of the 2022 updated ASMBS and IFSO guidelines. This single institution survey indicates a gap in PCPs' knowledge regarding the updated guidelines, and represents an opportunity for collaboration with our primary care colleagues to provide further education on MBS.

A091

"Novel Liver Retraction Technique: The Penrose Barbed-Suture Internal Retractor in Robotic Bariatric Surgery"

Alexander Ramirez *ST. PETERSBURG FL*[1], Andres Ramirez *Barranquilla* [2]
Bayfront Health[1] Universidad del Norte[2]

The Penrose Barbed-Suture Internal Liver Retractor is a simple tool used in bariatric procedures for liver retraction without needing an external retractor, trocar, or needle extraction through the abdominal wall. Importantly, it does not interfere with robotic arms.

Constructed as a simple and rapid homemade solution, the device is assembled on the back table using a 5 cm latex-free Penrose with a barbed suture on each side. One, measuring 10 cm, attaches to the falciform above the liver, while the other, measuring 20 cm, is initially attached to the right cross and later to the free edge of the falciform ligament. The barbed suture is a number one PDS suture with a CT-1 needle.

During the procedure, the device is introduced under direct visualization. The 20 cm barbed suture is placed in the right cross, pulled until Penrose's first edge is attached, and the needle is left in place. The second barbed suture extends the Penrose against the free liver edge, attaching it to the falciform near the diaphragm. The needle is then cut for later extraction. Subsequently, the longer barbed suture is attached to the free edge of the falciform ligament for additional liver retraction in a "V" configuration, followed by cutting and extracting both needles.

A retrospective review of 469 robotic bariatric cases performed by a single surgeon from 01/01/2019 to 12/05/2023 demonstrated the successful use of the Penrose Barbed-Suture Internal Liver Retractor in Robotic Bariatric procedures.

A092

Robotic Roux-en-Y Gastric Bypass with Remnant Gastrectomy

Luke Crawford *Houston TX*[1], Melissa Felinski *Houston TX*[1], Shinil Shah *Houston TX*[1]
University of Texas at Houston[1]

Patient is a 42 year old female with a past medical history of hypertension, hyperlipidemia and morbid obesity (BMI 50), who desired weight loss surgery. Preoperatively, an upper endoscopy was performed, revealing mild gastritis. Antral biopsies were performed, which came back positive for autoimmune atrophic gastritis on the pathology report. A discussion detailing the increased risk of the development of gastric cancers in autoimmune gastritis was held with the patient. After this discussion, the patient still desired a bypass. Therefore, the decision was made to perform a Roux-en-Y gastric bypass with remnant gastrectomy due to the difficulty of accessing the remnant stomach if the patient required continuous endoscopic surveillance. This video demonstrates a Roux-en-Y gastric bypass with a two layered hand-sewn gastrojejunostomy as well as the dissection and key technical steps for performing a remnant gastrectomy. The patient's post-operative course was uneventful and she was discharged on post-op day two. Her most recent follow up was at 24 months where she was doing well and had significant weight loss (BMI 33).

A093

Concurrent Hiatal Hernia Repair and Roux-en-Y Gastric Bypass is a Safe and Effective Treatment in Populations with Obesity

Leon Siegel *Iowa City IA*[1], Peter Nau *Iowa City IA*[1], Jessica Smith *Iowa City IA*[1], Ryan Lehmann *Iowa City IA*[1]
University of Iowa Hospitals and Clinics[1]

Introduction

Minimally invasive hiatal hernia repair, HHR, with fundoplication is the current standard of care for hiatal hernias but has significant risk of recurrence even in those populations without obesity. There is a paucity of data on the safety and efficacy of a roux-en-y gastric bypass, RYGB, with concomitant HHR.

Methods

A retrospective review of data from a single institution was performed. Data was collected on patients who underwent a RYGB and HHR from 2014-2023. Patients were excluded when lost to follow-up prior to 1 year (11 patients) or had a revisional surgery(15 patients). Forty-nine patients were ultimately included for review. Baseline data for weight and medications were recorded at enrollment in the bariatric program and at the time of their dietary compliance visit, respectively, then again at one year.

Results

There was one perioperative complication for a pneumothorax that required intervention. Two patients (4%) had unplanned readmissions for PO intolerance, and four patients (8%) were treated for marginal ulcer. Resolution of heartburn and reflux symptoms was 88% at one year. All ten patients on medications for diabetes either stopped them or were reduced to a lower dose. For patients with hypertension, 63% were on a lower dose or off all medications. The average change in BMI was 13.2, excess weight loss 60%, and total body weight loss 30%.

Discussion

Durability of a HHR in the setting of obesity is poor. A RYGB with concurrent HHR is safe and effective at treating symptoms of GERD while also improving obesity-associated comorbidities.

A094

Robotic Assisted Gastric Bypass Conversion to Single Anastomosis Duodenal Switch with Jejunal Interposition and Subtotal Gastrectomy, A Case Report

Margaret Costa *Reading PA*[1], Aaron Hechtman *Wyomissing PA*[2], John Fam *Wyomissing PA*[2]
Tower Health Reading Hospital[1] Tower Health[2]

This is a case of a 66 year old female with past medical history significant for morbid obesity, loop recorder placement for paroxysmal atrial fibrillation, anemia, hypertension, Roux-en-Y gastric bypass in 2007 who presented to the clinic with difficulty losing weight. Patient reported refractory weight gain despite appropriate lifestyle modifications several years postoperatively after previously having successful weight loss. She subsequently underwent gastric band placement in 2014 for weight gain which was later removed for difficulty tolerating food. She presented to the clinic to discuss surgical weight loss options, preoperative BMI at that time was 57.42 kg/m^2. She underwent preoperative esophagogastroduodenoscopy which was notable for <1 cm gastric pouch and widely patent gastrojejunostomy. She also underwent mesenteric angiogram which demonstrated adequate blood flow to her stomach, and she was cleared by cardiology for surgery given her history of paroxysmal atrial fibrillation and loop recorder placement. She underwent robotic assisted gastric bypass conversion to single anastomosis duodenal switch with jejunal interposition and subtotal gastrectomy, she tolerated procedure well without immediate complications. She was discharged home on postoperative day three. She progressed well postoperatively. One year after her gastric bypass conversion, most recent BMI was 41.7 kg/m^2 and she recently underwent panniculectomy for symptomatic pannus.

A095

"Team Approach for Successful Robotic Sleeve Gastrectomy in a Patient with a Weight of 915 lbs."

Alexander Ramirez *ST. PETERSBURG FL*[1], Andres Ramirez *Barranquilla* [2]
Bayfront Health[1] Universidad del Norte[2]

This presentation outlines the successful execution of a team-based approach in performing a robotic sleeve gastrectomy on a 23-year-old male with a BMI of 173 (915 lbs.).
The patient presented to the ED reporting right breast pain and a two-week history of ambulation difficulties. Subsequently, admission to the medical ward for right breast cellulitis, an exacerbation of atrial flutter leading to heart failure, acute kidney injury, and ongoing management of chronic medical issues.

The patient's complex medical history included heart failure, atrial flutter, PE / DVT on anticoagulation, and obesity-related comorbidities, including OSA, Hypertension, and Pseudotumor Cerebri.

Preoperative considerations involved clearances from cardiology, pulmonary, and vascular surgery, with specific attention to managing pulmonary hypertension and the high risk of pulmonary complications. Intraoperatively, meticulous planning addressed the patient's weight challenges, ensuring safe abdominal entrance, insufflation, and trocar selection.

Postoperative care included delayed extubation, continued monitoring of fluid status and cardiac function, and the initiation of anticoagulation. The patient's postoperative course involved managing transient complications such as pulmonary edema and pulmonary hypertension.

This case highlights the feasibility of safely performing gastric sleeve surgery on a super-obese patient and underscores the significance of a multidisciplinary team. The presentation emphasizes the importance of tailoring anticoagulant choices to individual patient needs and suggests that gastric sleeve procedures may effectively address associated comorbidities.

In summary, this case underscores the successful integration of a collaborative team approach in managing a challenging bariatric surgery, offering insights into preoperative, intraoperative, and postoperative considerations for optimal patient outcomes.

A097

Is it Destiny? In Mid-Term Follow-up, High Dose Dry Vitamin D3 (cholecalciferol) Can Prevent and Treat Secondary Hyperparathyroidism After Duodenal Switch.

Lindsey Sharp *Raleigh NC*[1], Collin Sharp *Raleigh NC*[2], Peter Ng *Raleigh NC*[3], Dustin Bermudez *Raleigh NC*[3], Linda Youngwirth *Raleigh NC*[3], Benjamin Crisp *Raleigh NC*[3]
UNC/Rex Healthcare[1] Wake Forest University[2] UNC/Rex Hospital[3]

Objective:
To define the variables that predict secondary hyperparathyroidism (HPTH) after duodenal switch (DS) at midterm follow-up (2-3 years). To define the optimal vitamin D (Vit D) level to reduce risk of HPTH after DS.

Background:
HPTH is common following bariatric procedures, especially those with more distal bypasses like the DS.

Setting:
Private Practice Tertiary Referral Center

Methods:
115 consecutive patients from 12/2020 to 9/2021, who received a DS with a 300 cm alimentary limb and common channel lengths between 100 cm and 150 cm, were analyzed in a retrospective manner. Minimum cholecalciferol (Vit D3) supplementation was 30,000 IU daily. Logistic regression analysis was performed to determine variables predictive of HPTH.

Results:
In multivariate analysis, only the preop PTH and Vit D level were statistically significant predictors of HPTH at the last follow-up. 50% of patients with HPTH preop were able to resolve the HPTH postop. Only 15% of patients without HPTH preop developed HPTH at 2-3 years. Vit D levels were higher in patients without HPTH (48 vs 35, $p<0.0001$). Patients achieving a Vit D level <=40 were 4 times more likely to have HPTH than those with a Vit D level >= 60 for DS (OR=4.04, CI=1.6,10) at follow up of 2-3 years postop.

Conclusions:
Higher preop PTH levels indicate an increased risk of developing HPTH after DS. This can be mitigated by achieving higher Vit D levels (i.e >60 ng/ml). Vitamin D supplementation should be adjusted to target Vit D levels for a normal PTH.

A099

Portal vein thrombosis after laparoscopic sleeve gastrectomy: A single institution case series

Daniel Farinas Lugo *Orlando FL*[1], haven ward *orlando FL*[1], Samantha Buhler *Orlando FL*[1], Gustavo Bello *Orlando FL*[1]
AdventHealth[1]

Laparoscopic sleeve gastrectomy (LSG) has gained significant popularity in recent years as one of the leading weight-loss procedures in the U.S. due to its reported effectiveness and relatively low risk. One of its notable advantages is a low incidence of complications, however, portal vein thrombosis (PVT) has emerged as a potential complication, with a reported incidence of 0.419%. In this report, we present a case series documenting four instances of PVT following LSG at our institution. Notably, all cases manifested within four weeks postoperatively in patients devoid of any prior history of deep venous thrombosis (DVT) or prothrombotic risk factors. The patients, aged between 34 and 56, exhibited an average BMI of 46, and the predominant presenting symptom was abdominal pain. Diagnosis was confirmed through abdominal CT scans, with subsequent treatment involving systemic anticoagulation. Following treatment, all patients were discharged with oral anticoagulation, with an average duration of three weeks. Notably, no formal hypercoagulable state was identified beyond recent surgery.

Research suggests that the incidence of PVT post-bariatric surgery is lower in patients who undergo extended postoperative prophylactic anticoagulation (AC). Given the rarity of PVT as a complication following bariatric surgery, heightened vigilance is essential, particularly after LSG. Clinicians should be mindful of this potential complication, implementing perioperative AC protocols and considering postoperative AC protocols, even in low to moderate-risk bariatric patients. A multidisciplinary approach to the treatment of PVT is recommended to ensure comprehensive care and management.

A100

Efficacy of concurrent hiatal hernia repair for GERD during sleeve gastrectomy

Stanislav Bushik *Staten Island NY*[1], Andrea Bivona *Staten Island NY*[1], Alexandra Bronis *Staten Island NY*[1], Arthur Barchenko [1], Alexander Barkan *Staten Island NY*[1]
Richmond University Medical Center[1]

Obesity is a condition that is well known to contribute to the development of gastroesophageal reflux (GERD). A significant portion of patients with obesity report symptoms of GERD such as heartburn, regurgitation, and nausea. The development of GERD is multi-factorial and as experience shows, sleeve gastrectomy contributes to GERD symptoms post-operatively. We sought to determine if the presence of a hiatal hernia and its repair during sleeve gastrectomy impacts patient symptomatology related to GERD post-operatively. To study this query, patients that underwent sleeve gastrectomy completed a questionnaire pre- and post-operatively regarding their symptoms of GERD. Intraoperatively, many patients were noted to have small (1-3cm) hiatal hernias which were repaired primarily with a non-absorbable suture. All patients had a 36Fr bougie placed and once access to the abdomen was established the diaphragmatic hiatus was examined. If an indentation was observed, an anterior and posterior crural approximation with non-absorbable suture was performed. Those patients that underwent sleeve gastrectomy with repair of hiatal hernia and their responses to the questionnaires were then examined. The findings indicate that many patients who reported symptoms indicative of GERD pre-operatively and subsequently underwent sleeve gastrectomy with hiatal hernia repair had substantial reduction or complete resolution of their symptoms post-operatively. In addition, no patients complained of dysphagia post-operatively. These results suggest that the primary repair of even small hiatal hernias concurrently with sleeve gastrectomy may provide relief of GERD symptoms or prevent symptoms post-operatively in patients with obesity while also not contributing to complications such as dysphagia.

A102

The Impact of Bariatric Surgery on Coronary Revascularization Outcomes

Isabelle Van Roy *Port Jefferson NY*[1], Alisa Khomutova *Saint James NY*[1], Ila Sethi *Stonybrook NY*[1], Mohammed Noubani [2], Jie Yang *STONY BROOK NY*[1], Xiaoyue Zhang *Stony Brook NY*[1], Aurora Pryor *North New Hyde Park NY*[1], Edmund Lee *Stony Brook NY*[1], Artem Shmelev *Stony Brook NY*[1], Amy Rosenbluth *Stony Brook NY*[1], Henry Tannous [1], Konstantinos Spaniolas *Stony Brook NY*[1]

Stony Brook Medicine[1] UNC Health[2]

Background:

Metabolic bariatric surgery (MBS) is recognized for its positive impact on cardiovascular risk profiles. Previous studies have underscored its association with a decreased risk of future coronary revascularization (CR), percutaneous coronary revascularization (PCI) and coronary artery bypass grafting (CABG). However, there is limited data on the impact of MBS on CR morbidity outcomes.

Objectives:

This study aims to assess the impact of MBS on the rate of major adverse cardiovascular events (MACE), including in-hospital death, stroke, and myocardial infarction (MI) following CR.

Methods:

retrospective analysis utilizing the Statewide Planning and Research Cooperative System (SPARCS) database was conducted on patients who underwent CR between 2009 and 2018. Patients were divided into those with previous MBS and those without. To mitigate baseline differences between surgical and non-surgical groups, propensity score matching was employed. Non-surgical records were matched with surgical records in a 10:1 ratio without replacement to minimize systematic disparities.

Results:

The propensity matched study encompassed 2,959 patients, including 273 (9.23%) MBS patients and 2,686 (90.77%) non-MBS patients. Of the total patient population, 46.91% were male, 78.44% were white non-hispanic, and 67.59% were commercially insured. Additionally, 75.77% had hypertension, 7.27% had renal failure, and 51.44% had diabetes. The cumulative incidence of MACE following CR was similar between the two groups (figure).

Conclusion:

Although MBS has been previously associated with reduced risk of future CR, the current data suggests no significant difference in the incidence of MACE after CR for patients with previous MBS compared to non-BMS.

A104

Using text messaging to understand post operative behaviors in youth following bariatric surgery

Melissa Santos *Hartford CT*[1], Christine Finck *Hartford CT*[2], Kathyria Oyola-Cartagena *Hartford CT*[3], William Zempsky *Hartford CT*[4]
Connecticut Children's Medical Center[1] Connecticut Children's[2] CT Children's[3] Connecticut Childrens'[4]

Background:
The first two weeks following bariatric surgery, starting with the hospital course, are often predictive of successful healthy habits for adolescents. As such, this exploratory study aimed to assess the relationship between mood, pain, activity, and intake in the first two weeks post bariatric surgery, with additional follow up to six weeks.

Methods:
Post-bariatric surgery, 10 participants received text messages three times a day for two weeks and once per week for four subsequent weeks to complete structured questions related to mood, pain, intake and activity. They also qualitatively reported any barriers to success.

Results:
Thirty-one patients were recruited with ten consenting and nine completing the six weeks. Participants had an average age of 17, and were mostly female, and Hispanic/Latine. In weeks 1-2, high adherence to nutritional recommendations (M=8.94, SD=2.24) was noted with slight decreases in weeks 3-6 (M=8.82, SD=1.99). Medication adherence slightly increased in weeks 3-6 (M=8.91, SD=1.51), compared to weeks 1-2 (M=8.76, SD=2.49). In weeks 1-2, low levels of worry (M=2.06, SD=1.29) were noted which decreased in weeks 3-6 (M=1.45, SD=1.21). In weeks 1-2 sadness was marginally elevated (M=2.27, SD=1.69), and slightly increased in weeks 3-6 (M=2.36, SD=2.56). Of participants reporting impacted mood, pain was the most common reason; however, reports of pain decreased in weeks 3-6 post-bariatric surgery.

Conclusions:
This exploratory study sought to begin understanding relationships between key behaviors in the immediate weeks following bariatric surgery. A greater understanding of potentially modifiable behaviors is critical to increasing the success of youth following bariatric surgery.

A107

Preoperative nutrition education may correlate with postoperative follow up

Aviv Ben-Meir *Willoughby OH*[1], Nicole Thompson *Willoughby OH*[2], Meredith Murdock *Willoughby OH*[2], Courtney Holbrook *Willoughby OH*[2]
University Hospitals Lake West Medical Center[1] University Hospitals Lake West Med Ctr[2]

In 2021, we began a quality improvement initiative to assess the effectiveness of our preoperative nutrition education. The program's registered dietitians created a 27-question nutrition quiz which we give all patients at their initial visit prior to any nutrition education. Patients are not given a copy of the quiz or the correct answers. Patients take the identical quiz at the completion of their preoperative nutrition education. We hypothesized that improvement in quiz scores was consistent with effective education. We found that patient quiz scores improved over the 3-6 dietitian visits. We analyzed if scoring above average on the post-education quiz correlated with improvement in postoperative follow-up.

All bariatric surgery patients completed the nutrition quiz prior to seeing the dietitian for their initial preoperative appointment. Patients seeking a revision were excluded. The average score on the quiz prior to seeing a dietitian was 76.2%. The average post-education quiz score was 85.7%.

88 patients completed both pre-education and post-education nutrition quizzes and are one year from their bariatric surgery. 74.5% of patients that scored above average on their post-education nutrition quiz attended their one year postoperative follow-up appointment. Only 40.5% of patients scoring below average on their post-education nutrition quiz came to their one year postoperative follow-up.

We found that a higher score on the post-education nutrition quiz correlated with better follow up at one year post-operation. This may reflect more engagement in or commitment to the program from those patients that benefited the most from the preoperative nutrition education process.

A108

Increases in preoperative nutrition knowledge may impact postoperative weight loss

Aviv Ben-Meir *Willoughby OH*[1], Nicole Thompson *Willoughby OH*[2], Meredith Murdock *Willoughby OH*[2], Courtney Holbrook *Willoughby OH*[2]
University Hospitals Lake West Medical Center[1] University Hospitals Lake West Med Ctr[2]

In 2021, we initiated a quality improvement project to assess if our dietitians effectively taught preoperative nutrition. Our program's registered dietitians created a 27-question nutrition quiz which was given to all patients at their initial dietitian visit prior to any education. Patients were not given a copy of the quiz or the correct answers. The identical quiz was readministered prior to surgery. We hypothesized that quiz scores would increase with education. We found that scores increased after participation in 3-6 preoperative dietitian appointments. We also hypothesized that patients scoring above average on their quiz would have greater postoperative weight loss.

All bariatric surgery patients were given the quiz prior to seeing the dietitian for their initial preoperative medical weight loss visit. Patients seeking a revision were excluded. The average quiz score prior to seeing a dietitian was 76.2%. The average quiz score prior to surgery was 85.7%.

88 patients who completed both pre-education and pre-operative nutrition quizzes are now one year postoperation. Mean excess weight loss for patients that scored above average on their post-education quiz is 69.5%. Mean excess weight loss for patients that scored below average is 59.3%.

Patients who scored above average on their post-nutrition education quiz had better weight loss at one year postoperation compared to their peers who scored below average. As insurance mandates for preoperative nutrition education are less emphasized bariatric programs should continue to insist on comprehensive preoperative education to increase nutrition knowledge and improve postoperative weight loss.

A110

Robotic Repair of Type 3 Hiatal Hernia and Sleeve Gastrectomy

Aley Tohamy *Phoenixville PA*
Crozer Chester Medical Center

The presence of Hiatal Hernia in obese patient is common, its prevelance can reach 20-50%. Significant number of patients are asymptomatic, and Hiatal Hernia are discovered during their workup for other conditions. This video presents the incidental finding of large type 3 Hiatal Hernia during the workup of a patient for Robotic Sleeve Gastrectomy. The patient was asymptomatic with no symptoms of Gastroesophageal Reflux Disease (GERD) and with no evidence of GERD on upper GI study or on Endoscopy. The patient opted to proceed with Sleeve Gastrectomy with concurrent repair of the Hiatal Hernia. The video presents the technique of repair of the Hiatal Hernia and performing the Sleeve Gastrectomy at the same procedure using Robotic surgery. The outcome of the procedure as well as the follow up of the patient for more than six months, showed no evidence of reccurence of the Hiatal Hernia and no evidence of GERD. We concluded that Sleeve Gastrectomy is a feasible procedure to be performed in the setting of large Hiatal Hernia as long as complete reduction of the hernia with repair of the diaphragmatic crurae is performed.

A111

Relationship between participation in online support communities and weight loss in an online, corporately sponsored, weight loss program

Sasha Clynes *Dallas TX*[1], Tim Church *Dallas TX*[2], Brian Woodcock *75251 TX*[2]
Wondr Health/Johns Hopkins Bloomberg School of Public Health[1] Wondr Health[2]

Background:
Online weight-management support communities provide encouragement, motivation, accountability, and an outlet for sharing experiences and accomplishments. However, it is unclear whether participation in these communities is associated with greater weight loss.

Objective:
To examine if participation in an online support community was associated with weight loss in a corporate online weight loss program.

Methods:
Participants (N=226,909, mean age 46, 75% women, 72% Non-Hispanic White, 63% with obesity, 30% with overweight) were from employers and health plans in the US. We examined maximum weight loss by community platform participation (posting, commenting, liking, or reading content). Regression models included age and gender as covariates.

Results:
20% of participants engaged in the community platform. Engaged participants lost significantly more weight than those who did not. Compared to non-participating individuals (weight loss 1.6%), those who commented, posted, liked, or read posts achieved 5.3%, 5.1%, 5.0% and 3.9% weight loss respectively ($p<0.001$). While community platform users also attended more online educational classes (15 vs. 8 sessions), weight loss differences persisted between community platform users versus non-users who attended three classes or more: (4.6% vs. 3.0% weight loss respectively, $p<0.001$).

Conclusion:
Community platform participation was associated with greater weight loss. Even those who just read content or "lurked" in the community had 60% greater weight loss than those who did not engage. However, reverse-causality bias may be present as those who are more successful losing weight may be more inclined to participate in the online community.

A113

An Appointment Tool to Improve Long-term Patient Follow-up After Metabolic Bariatric Surgery (MBS)

Sheilia Similien *Kissimmee FL*
AdventHealth Celebration

Background.
Adherence to postoperative follow-up improves weight loss and reduces or prevents vitamin/mineral deficiencies and other adverse events. Patient compliance to postoperative follow-up, however, tends to regress over time. To improve follow-up, we 1) determined the effect of a new scheduling process workflow on long-term (two-year) adherence and completion of labs, and 2) identified contributory factors to scheduling nonadherence.

Methods.
The study population included 176 out of 268 MBS patients who missed their two-year follow-up visit in 2023. An electronic medical record (EMR) appointment task feature created an appointment notification for the receptionist. An educational tool was used to train the receptionist about the workflow guide and appointment task. Data was collected using Microsoft Excel® and analyzed using descriptive statistics.

Results.
Using the workflow guide, 159 (90%) of the 176 originally unscheduled patients were called. Of these, 75 or 47% scheduled an appointment and 53% did not. This resulted in a 45% increase in follow-up adherence, from a rate of 34% to 62%. All (100%) of scheduled patients had labs ordered. Sixty-one (81%) of patients scheduled a telemedicine visit and 19% preferred an in-office visit. Patients who did not schedule had a reason documented in their EMR. Scheduling nonadherence was unrelated to either patient demographics (ethnicity, gender, age, BMI) or surgical procedure (Roux-en-Y gastric bypass, duodenal switch, sleeve gastrectomy).

Conclusions.
The implementation of the workflow guide had a positive impact on the scheduling of long-term follow-ups and labs ordered.

A115

Pregnancy and Birth Complications among Women Undergoing Metabolic and Bariatric Surgery: Sleeve Gastrectomy Versus Roux-en-Y Gastric Bypass

Shavonne Osiakwan *Chicago IL*[1], Kiana Jones *Oak Park, IL IL*[1], Nicholas Skertich *Chicago IL*[1], Swathi Reddy *Chicago IL*[1], Philip Omotosho *Chicago IL*[1], Alfonso Torquati *Chicago IL*[1]
Rush University Medical Center[1]

INTRODUCTION

Obesity is an increasingly prevalent disease, affecting the health of millions of individuals. Metabolic and bariatric surgery remains the most effective therapy for severe obesity. Roux-en-Y-Gastric-Bypass (RYGB) and Sleeve Gastrectomy (SG) are the most common bariatric procedures and are associated with durable weight loss and comorbidity resolution. However, the impact of these procedures on obstetric outcomes is underexplored, as women of childbearing age compose the majority of individuals with obesity who undergo bariatric surgery. This retrospective cohort study compares obstetric outcomes in women who gave birth after undergoing SG or RYGB.

METHODS

The PearlDiver-Mariner database was used to identify patients who underwent SG or RYGB between 2010-2020 through Current Procedural Terminology and International Classification of Diseases procedure codes. Women ages 18-52 who became pregnant within 2 years of undergoing bariatric surgery were included. Outcomes were defined by the presence of one or more pregnancy related complications. A 1:1 propensity matched analysis was performed with multivariable logistic regression.

RESULTS

16,911 individuals, 10,675(63.1%) and 6,236(36.9%) underwent SG and RYGB, respectively. Obstetric complication rates were 28.3% in the SG vs. 32.1% in the RYGB group ($p<0.01$). The RYGB group had an increased relative odds of experiencing an obstetric complication compared to the SG group (OR=1.26,95% CI=1.14,1.38).

CONCLUSION

RYGB was associated with a higher risk of obstetric complications than SG in women who became pregnant within 2 years postoperatively. These findings can help women and surgeons decide which procedure to pursue and inform discussions regarding the timing of pregnancy following surgery.

A117

A Single Institution Experience with Conversion of Gastric Bypass and Sleeve Gastrectomy to BPD-DS and SADI-S for Weight Regain

Alex Kremers *Winston Salem NC*[1], Myron Powell *Winston-Salem NC*[1], Stephen McNatt *Winston-Salem NC*[1], Lauren McCormack *Winston Salem NC*[1], Adolfo Fernandez *Winston Salem NC*[1]
Wake Forest Baptist Medical Center[1]

Abstract

Background:
Weight regain after Roux-En-Y gastric bypass and Laparoscopic Sleeve Gastrectomy presents a difficult clinical problem for bariatric surgeons. The Biliopancreatic Diversion with Duodenal Switch and Single anastomosis duodenal ileal bypass with Sleeve are two surgical options for conversion. We report on a single institution experience in these conversion procedures.

Methods:
A retrospective chart review was performed on 15 patients who underwent conversion from LSG or RNYGB to biliopancreatic diversion with duodenal switch (BPD-DS) or single anastomosis duodeno-ileal bypass with sleeve (SADI-S) at a single institution between November 2016 and April 2023.

Results:
Five patients underwent conversion from RNY to BPD-DS, seven underwent Sleeve gastrectomy to BPD-DS, two patients were converted from RNY to SADI-S and 1 patient underwent sleeve to SADI-S. At 1 month, 6 months, and 1 year mean excess body weight loss was 12%, 28% and 31% for the entire cohort. One patient required reoperation within thirty days for anastomotic leak. One patient developed an SMV thrombus that required readmission and anticoagulation.

Conclusions:
Our short term follow-up data indicates that conversion of RNYGB or LSG to BPD-DS or SADI-S is a reasonable and safe salvage option in the setting of weight regain after bariatric surgery.

A116

Bariatric surgery resolves infertility in patients with polycystic ovarian syndrome and obesity

Esha Kadakia *Breinigsville PA*[1], Eunpyung Suk *Philadelphia PA*[1], Vikram Jonathan Eddy *Philadelphia PA*[2], Rohit Soans *Philadelphia PA*[2], Neil King *Philadelphia PA*[2], Charis Ripley-Hager *Baltimore MD*[2]

Lewis Katz School of Medicine[1] Temple University Hospital[2]

Introduction:

Polycystic ovarian syndrome (PCOS), a metabolic disease for which weight loss is a mainstay of treatment, is a significant public health problem and a leading cause of infertility. Bariatric surgery presents a potential avenue for resolution of PCOS and its symptoms.

Methods:

A retrospective chart review of patients with PCOS who had bariatric surgery at our institution between 2014 and 2023 was performed. This was supplemented with an optional phone survey to determine the efficacy of sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) for PCOS resolution. Post-operative weight loss, improvement of PCOS symptoms including infertility, and discontinuation of PCOS treatment were analyzed using multivariable regression analysis.

Results:

In total, 41 patients were identified, 22 SG vs. 19 RYGB. Seven of these patients were available for telephonic survey, five of whom described PCOS symptoms as a primary motivator in pursuing bariatric surgery. Significant improvement was seen with regard to abnormal menstruation (n=28, 60.7%), especially in those with lower pre-operative BMI (p=0.02). In patients of child-bearing age with infertility pre-operatively, 100% achieved pregnancy post-operatively (n=11). Of 29 patients with pre-operative PCOS treatment, 48.3% discontinued treatment post-operatively. Surgical method was not a statistically significant factor.

Conclusion:

Bariatric surgery offers the most effective available treatment for patients with obesity and PCOS, particularly those with infertility. SG and RYGB are equally successful, and earlier operations may benefit those wishing to conceive. In order to better track outcomes in this important patient population, PCOS should be added as a variable to the MBSAQIP database.

A118

ENDOSCOPIC SLEEVE GASTROPLASTY (ESG) DOMINATES LIFESTYLE MODIFICATION IN CLASS III OBESITY: A REAL-WORLD COST-EFFECTIVENESS ANALYSIS

Lauren Donnangelo *Atlanta GA*[1], Daniel Maselli *Atlanta GA*[1], Areebah Waseem *Cary NC*[1], Chase Wooley *Cary NC*[1], Shannon Casey *Cary NC*[1], Brian Coan *Cary NC*[1], Christopher McGowan *Cary NC*[1]
True You Weight Loss[1]

Background:
Obesity impacts nearly 42% of United States (US) adults and incurs costs of more than $700 billion US Dollars (USD) annually (2019 estimate). Endoscopic sleeve gastroplasty (ESG) is an FDA-authorized incisionless procedure with an excellent safety, efficacy, and durability profile. In this study, we estimate the cost-effectiveness of ESG versus lifestyle modification (LM) in a real-world population of US adults with class III obesity.

Methods:
A 6-state Markov model including 5 BMI-based health states and an absorbing death state was utilized. Clinical inputs for ESG were taken from a single-center, real-world US database, and inputs for LM were derived from clinical literature. 6-month cycles were used in the first year and annual cycles thereafter, with a 5-year horizon. Estimates of utility for each health state, disutilities for adverse events, and the incidence of obesity-related comorbidities were based on clinical literature. One-way and probabilistic sensitivity analyses were performed, and costs were reported as 2023 USD.

Results:
53 patients with class III obesity were analyzed. The base-case incremental cost-effectiveness ratio (ICER) for ESG versus LM was $743/QALY, well below established willingness to pay thresholds ($100,000/QALY) (Figure 1). ESG dominated LM in one-way and scenario analyses, with no ICER exceeding $1,375. Probabilistic sensitivity analyses suggested cost-effectiveness of ESG in over 99% of simulations.

Conclusions:
ESG is highly cost-effective in class III obesity. Physicians should offer ESG as an option to patients seeking incisionless obesity treatment, and payers may find the cost-effectiveness of ESG sufficient to increase coverage for their members.

A120

Socioeconomic Disparities in Perioperative and Long-Term Outcomes of Adolescent Bariatric Surgery

Ila Sethi *Stonybrook NY*[1], Alisa Khomutova *Saint James NY*[1], Adrian Torres *Stony Brook NY*[1], Xiaoyue Zhang *Stony Brook NY*[1], Jie Yang *STONY BROOK NY*[1], Artem ShFmelev *Stony Brook NY*[1], Amy Rosenbluth *Stony Brook NY*[1], Konstantinos Spaniolas *Stony Brook NY*[1]
Stony Brook University Hospital[1]

INTRODUCTION

While the safety of adolescent metabolic bariatric surgery (MBS) has been demonstrated, there is limited data surrounding the role of socioeconomic factors. This study subsequently aims to examine how socioeconomic status affects short and long-term outcomes of adolescent MBS.

METHODS

Patients aged 12-19 who underwent MBS between 2007-2018 were identified using the New York Statewide Planning and Research Cooperative System database. For each patient, 30-day readmissions, length of stay (LOS), in-hospital complications, and need for revision or conversion (RC) was identified. Socioeconomic status was measured using area deprivation index (ADI) scores. ADI scores were stratified into three groups: low (1-4), median (5-7), and high (8-10), with lower scores indicating higher SES. Multivariate regression models were used for analysis.

RESULTS

2,241 adolescents underwent MBS in the study time frame. Adolescents with low and median ADI scores were more likely to undergo SG than patients with high scores (58.53% and 65.65% vs. 37.72% respectively, $p<0.0001$).
Patients with lower and median ADI scores were less likely to have a subsequent RC after bariatric procedure than patients with a high ADI score (low vs. high: OR=0.484, 95% CI 0.263-0.889; median vs. high: OR=0.536, 95% CI 0.288- 0.996).
30-day readmissions, complications, or LOS did not differ significantly across ADI levels.

CONCLUSION

ADI level is associated with both procedure choice and long-term outcomes, with disadvantaged adolescents more likely to undergo RYGB and subsequent RC.

A121

Unusual Incidence of Hyperammonemia After Roux-en-Y Gastric Bypass

Katerina Jou *New York NY*[1], Saigopal Gujjula *Brooklyn NY*[2], Tara Ranjbar *New York NY*[1], Kevin Butler *Staten Island NY*[3], Vincent Kaykaty *Staten Island NY*[3], Olivia Haney *Staten Island NY*[3], Indraneil Mukherjee *Staten Island NY*[3]
CUNY School of Medicine[1] The Brooklyn Hospital Center[2] Staten Island University Hospital[3]

Introduction:

Roux-en-Y bypass (RYGB) minimizes stomach size, food intake, and induces malnutrition, with known complications such as marginal ulceration, small bowel obstruction, and nutritional deficiencies. Hyperammonemia in this setting without precipitating factors is not a well-known occurrence.

Case Presentation:

We present a 41F with PMH of iron deficiency anemia treated with IV iron and bipolar disorder status post RYGB and recent duodenostomy and pyloroplasty for bleeding duodenal ulcers who presented with one month of rectal bleeding, progressive weakness, and confusion. She had been noncompliant with supplements and poor oral intake. CT demonstrated right lateral paraduodenal walled-off collections compatible with hematomas without active bleeding. The patient was persistently hypoglycemic and lethargic, and workup revealed an ammonia of 200umol/L. She was promptly started on lactulose and rifaximin via NG tube. With concern for metabolic encephalopathy, an EEG was done, consistent with epileptiform activity; and was started on levetiracetam. While awaiting IR drainage, she experienced acute mental status changes, leading to a code stroke and nonconvulsive status epilepticus confirmed on EEG. Plasma amino acid analysis later demonstrated elevated glutamine and low citrulline levels, suggestive of heterozygosity for ornithine transcarbamylase deficiency or a partial urea cycle disorder that developed post bypass. She was discharged on oral lactulose, rifaximin, and levetiracetam, and resumed her home medications.

Conclusion:

Genetic disorders can play critical roles in complications years after bariatric surgery. Liver biopsy, confirmatory genetic workup, and follow-up with bariatric surgery and Gl would help understand her metabolic state and other potential RYGB systematic effects.

A123

Integrating Obesity Screening and Management in Cancer Survivorship Care

Whittney Thoman *Houston TX*[1], David Santos *Houston TX*[1], Katherine Gilmore *Houston TX*[1], Thoa Kazantsev [1], Hannah Warr [1], Patricia Chapman *Houston TX*[1], Karen Basen-Engquist [1], Therese Bevers *Houston TX*[1], Lori Chang [1], Karla Crawford [1], Rebekah Crowder *Houston TX*[1], Jessica Hwang [1], Gabriel Lopez *Houston TX*[1], Meroë Morse *Houston TX*[1], Alma Rodiriguez [1], Jasmine Sukumar *Houston TX*[1], Sonali Thosani, *Houston TX*[1], Michael Roth *Houtson TX*[1]
MD Anderson Cancer Center[1]

Background:

Cancer survivors are at increased risk for developing chronic health conditions, subsequent malignancies and have early mortality. Obesity is a significant risk factor for poor health outcomes in the general population, and obesity further exacerbates the risk of developing cardiovascular disease and poor long-term health for survivors. Addressing obesity in survivorship is imperative for improving long-term health outcomes.

Methods:

The University of Texas at MD Anderson cares for more than 14,000 cancer survivors in specialized survivorship clinics. In 2022, a comprehensive review of body mass index (BMI) data from the clinics indicated that 72% of the patient population (n=10,015) were classified as overweight (34%), obese (23%), or morbidly obese (16%). In response, a multidisciplinary team developed the Adult Obesity Screening and Management algorithm to standardize care practices.

Results:

This evidence-based tool offers tailored weight assessment and management, encompassing diet, exercise, behavioral interventions, pharmacotherapy, and bariatric surgery. It caters to the unique needs of cancer patients during and after treatment, ensuring achievable and optimal outcomes. Institutional adoption of this algorithm could revolutionize obesity screening and management in survivorship care, empowering healthcare providers to address obesity effectively.

Conclusion:

The implementation of this specialized algorithm marks a significant step in combating obesity and enhancing patient health. The aim is to promote standardization at both institutional and national levels, ultimately improving survivors' long-term health and reducing the burden of obesity-related complications. The cancer survivorship obesity management algorithm will be accessible to all stakeholders involved in caring for cancer survivors.

A114

Effect of Food Environment on Weight Loss After Bariatric Surgery

John Helmken *Greenville SC*[1], Noelle Luzzi *Greenville NJ*[2], Dawn Blackhurst *Greenville SC*[1], Grace Wallenborn [1], John Scott *Greenville SC*[1]
Prisma Health[1] Clemson University[2]

The impact of food environment on weight loss after Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy in South Carolina is not well studied. Specifically, there is a lack of evidence in the Upstate region of South Carolina regarding the efficacy of weight-loss surgery in patients who live in a poor food environment. Our study is a single-center, retrospective review of 134 post-bariatric surgery patients that aims to assess the relationship between food environment and weight loss after bariatric surgery. We determined patients' food environments using the Center for Disease Control (CDC) modified food retail environment index (mRFEI) and the South Carolina Department of Health and Environmental Control (SC DHEC) food desert map. We assessed weight loss using percent of excess weight loss based on an ideal BMI of 25 g/m². We found no correlation between weight loss and food environment at 6 months (r= -0.13; p=0.14), 13 months (r= -0.12; p=0.22), 18 months (r= 0.04; p=0.75), 24 months (r= -0.17; p=0.25), or 36 months (r= -0.16; p=0.43) after bariatric surgery. Our data suggest there is no significant correlation between weight loss after bariatric surgery and living in an area with poor access to healthy food retailers. This study supports bariatric surgery as an effective method for weight loss regardless of patients' food environment.

A133

DCI as a Predictor of 30-day Bariatric Surgery Outcomes

Micah Wildes *Wauwatosa WI*[1], Tammy Kindel *Milwaukee WI*[1]
Medical College of Wisconsin[1]

Introduction:
Morbid obesity is associated with serious health and social consequences. Socioeconomically disadvantaged people are less likely to undergo bariatric surgery than their socioeconomically advantaged counterparts. The Economic Innovation Group's Distressed Communities Index (DCI) offers a metric to assess socioeconomic distress.

Objective:
This study investigated the relationship between community distress, as determined by DCI, and complications following bariatric surgery, including length of hospital stay, likelihood of an emergency department (ED) visit, 30-day readmissions, and peri-operative/post-operative occurrences.

Methods:
We conducted a retrospective analysis on a cohort of patients undergoing initial sleeve gastrectomy or Roux-en-Y bypass at a large academic hospital from 2016-2020. Patients were categorized based on the DCI of their community. We used the MBSAQIP database to record each patient's post-operative complications. Descriptive statistics were used to evaluate the association between community distress and complications.

Results:
Patients from distressed communities were more likely to have Medicaid and less likely to have private insurance ($p < 0.001$). Community distress was significantly correlated with longer hospital stay ($p < 0.001$) and a higher likelihood of an ED visit ($p < 0.007$). No significant correlation was observed between community distress and 30-day readmissions or peri-operative/post-operative occurrences.

Conclusions:
Higher community distress levels are associated with extended hospital stays and increased ED visits among bariatric surgery patients. DCI score does not significantly impact likelihood of intra/post-op occurrences or 30-day readmissions. DCI is not an independent risk factor for complications after adjusting for other variables and is not a significant driver of short-term post operative occurrences.

A135

Comparing Bariatric Surgery Patients and Outcomes of Department of Defense and Veterans Affairs Beneficiaries at an Academic Military Medical Center

Jonathan Livezey *Fort Eisenhower GA*[1], Thomas McKinley *Ft Gordon GA*[1], Andrew Anklowitz *Fort Eisenhower GA*[1], Joel Brockmeyer *Fort Eisenhower GA*[1], Byron Faler *Evans GA*[1]
Dwight D. Eisenhower Army Medical Center[1]

Background:
Bariatric surgery is the most effective treatment for obesity. Despite its success, fewer than 1% of eligible U.S. adults and 0.07% of U.S. veterans undergo bariatric surgery annually. Currently, there's limited research on bariatric surgery outcomes in Veterans Affairs (VA) beneficiaries.

Objective:
To compare Department of Defense (DoD) health care beneficiaries and VA beneficiaries who underwent bariatric surgery at an academic military medical center. We hypothesize the VA beneficiaries will have different preoperative characteristics than the DoD beneficiaries, resulting in different postoperative outcomes.

Methods:
Medical records of primary DoD and VA beneficiaries who underwent bariatric surgery at a single military treatment facility from January 2021 to November 2023 were reviewed.

Results:
A total of 127 patients – 99 DoD beneficiaries and 28 VA beneficiaries – were included. Although similar in age and race, the DoD cohort had a significantly higher proportion of females. The VA cohort had significantly higher rates of obstructive sleep apnea, osteoarthritis, anxiety, and post-traumatic stress disorder. Perioperative complication rates were similar. Body mass index (BMI) was similar in both cohorts at 3 and 6 months postoperative. The DoD cohort had a significant decrease in BMI compared to the VA cohort at 12 months postoperative (DoD BMI Loss=10.62, VA BMI Loss=8.44, P=0.02). Hemoglobin A1C, creatinine, and glomerular filtration rate values significantly improved at all postoperative timepoints.

Conclusion:
Although DoD beneficiaries have a significant decrease in BMI at 12 months postoperative compared to VA beneficiaries, all other postoperative outcomes are similar. Eligible VA beneficiaries should receive bariatric surgery referral.

A136

Hypercoagulability in Obesity: Factor VIII Levels improve after Weight Loss induced by Laparoscopic Sleeve Gastrectomy

Justin Olivera *Bronx NY*[1], Maryam Hashmi *Bronx NY*[1], Megan Darrell *Bronx NY*[1], Isaac Faith *Bronx NY*[1], Samantha Colon *Stony Point NY*[2], Ari Sapin *Bloomfield NJ*[3], Ajay Chopra *Bronx NY*[3]
Albert Einstein College of Medicine[1] CUNY School of Medicine[2] NYC Health + Hospitals/Jacobi[3]

Background
Obesity, an inflammatory state, contributes to hypercoagulability with elevation of coagulation factors VIII, IX and XI, fibrinogen and tissue factor. Factor VIII (FVIII) levels have been found to be elevated in patients who developed Porto-mesenteric vein thrombosis (PMVT) after Laparoscopic Sleeve Gastrectomy (LSG). Postoperative prophylactic anticoagulation therapy led to a significant reduction in PMVT without an increased risk of bleeding. This research builds on previous findings by comparing pre/post-op FVIII values 6-18 months after LSG in patients to see if these levels decrease after weight loss surgery.

Methods
We evaluated differences in pre-/post-operative FVIII levels, with changes in BMI, hyperlipidemia, HbA1c, and liver enzymes as secondary outcomes.

Results
248 patients underwent LSG between 2019 and 2022. 53 patients had pre-/post-operative FVIII levels available for analysis. 13 were excluded for having postoperative labs outside the 6-18 month timeframe. Analyzing revealed significant mean differences in weight (p= 4.3712E-07), BMI (p= 1.1023E-05), glucose levels (p=0.0074), and ALT (p=0.0059). There was a clinically significant decrease in mean FVIII (176.73 to 149.03, normal < 150), but it was not statistically significant.

Conclusions
A clinically significant reduction in FVIII was observed in most patients. Weight loss may decrease FVIII levels in LSG patients, further reducing their risk of thrombotic events. Limitations of this study include a small sample size, incomplete lab values and loss to follow up. Larger multicenter cohort study are necessary to adequately assess effect of weight loss on hypercoagulability.

A137

Initial Experience of a Novel Hybrid Procedure for Weight Regain after Roux-en-Y Gastric Bypass

Jorge Cornejo Aguilar *Randallstown FL*[1], Lorna Evans *Jacksonville FL*[1], Nafiye Busra Celik *Jacksonville FL*[1], Victoria Gomez *Jacksonvillle FL*[1], Vivek Kumbhari [1], Enrique Elli *Jacksonville FL*[1]
Mayo Clinic Florida[1]

Background:
There are numerous revisional surgery options for weight regain after Roux-en-Y Gastric Bypass. To date, there are no studies that assess the weight-loss outcomes of concurrent endoscopic revision of the gastrojejunostomy (GJ) in biliopancreatic (BP) limb-lengthening. Herein, we report our experience with single-stage laparoscopic BP limb-lengthening and endoscopic revision of the GJ.

Methods:
Five patients from 2021-2023 were included and retrospectively reviewed. The minimum follow-up time was 6 months, with a median follow-up of 16.8 months. In all patients the Roux limb was distalized to allow for a total common channel length of about 150 cm and the endoscopic suturing was used to bring the diameter of the GJ to less than 1 cm.

Results:
The average preoperative BMI was 43 with an average excess body weight of 51.5 kg. The mean operative time was 122 $\pm$ 26.71 min without complications. The BP limb was lengthened by an average of 302 $\pm$ 50.69 cm. For patients that underwent both laparoscopic and endoscopic revision, the average %EWL was 43.1% with an average BMI change of 7.9 and an average %TWL of 16.3% at a median follow-up of 16.8 months. Overall limb lengths and weight loss outcomes are shown in Figure 1. No readmissions or reinterventions were reported.

Conclusions:
Single-stage laparoscopic Roux limb-lengthening and endoscopic revision of the GJ, seems to be safe and feasible with sustained weight loss at 16.8-month follow-up. Therefore, it should be considered as an effective option of revisional Roux-en-Y Gastric Bypass for weight regain.

A139

Digital Tracking of Hunger and Fullness Enhances Awareness of Appetite, Food Choices and Portion Sizes in Patients with a Swallowable Gastric Balloon

Paul Sacher *Natick MA*[1], Victoria Rogers *Ross-On-Wye* [1], Julia Wilson *Natick MA*[1], Zoe Griffiths *White of British Origin* [1], Bill Nadeau *Natick MA*[1], Graham Finlayson *Leeds* [2], Jason Jason *Leeds* [3], Ram Chuttani *Natick MA*[4]

Allurion Technologies Inc.[1] University of Leeds[2] Leeds University[3] Allurion Technologies[4]

Introduction

A digital visual analogue scale (DVAS) has been validated for measuring appetite, however, use of this tool for patients with a swallowable gastric balloon (SGB) remains unexplored. Feasibility, compliance, and impact of daily appetite tracking using a DVAS on food choices and portion sizes among SIGB patients was explored.

Methods

This mixed-method study enrolled patients with obesity at different stages of a SGB program. 45-minute think-aloud interviews explored perceptions of digital appetite tracking. Participants reported their hunger and fullness levels for two weeks via a DVAS and completed weekly feedback surveys assessing the influence of tracking on appetite awareness, food choices, and portion sizes. Compliance was defined as DVAS completion at least once daily.

Results

Interviews (n=7) highlighted a low recognition of the role of appetite and a high level of emotional eating related behaviors. Nine patients used the DVAS for two weeks, with 96% compliance, and 67% tracking 2-3 times daily. Hunger and fullness scores were negatively correlated ($r = -0.849$; $p<0.001$). After two weeks of tracking, 78% reported increased hunger awareness, 73% increased fullness awareness, and 59% enhanced understanding of the connection between appetite and eating habits. Improved appetite control (food choices and reduced portion sizes) was also reported.

Conclusion

High DVAS compliance indicates its potential for increasing awareness of appetite, improving food choices, and reducing portion sizes in SGB patients. Preliminary results suggest appetite tracking using a DVAS is valid in this population and may be effective for managing dietary behaviors, self-regulation, and weight loss outcomes.

A140

A Novel Conversational Agent Fine-Tuned for Bariatric Treatment Provides Safe and Accurate Patient Care: A Multi Country Study

Paul Sacher *Natick MA*[1], Martha Neary *Natick MA*[1], Victoria Rogers *Ross-On-Wye* [2], Julia Wilson *Natick MA*[1], Emily Fulton *Boston MA*[1]
Allurion Technologies Inc.[1] Allurion Technologies Inc[2]

Introduction

Generative AI powered Conversational Agents (CAs), e.g. ChatGPT, are increasingly used to automate elements of patient healthcare. We developed a novel CA fine-tuned for bariatric care and assessed its ability to provide patients safe and accurate support. Additionally, we explored the role of human oversight in screening messages for indications of clinical issues or weight loss concerns.

Methods

Consecutive text-based conversations between patients and a novel CA were reviewed. A predefined framework (FAST), encompassing 4 domains, determined quality: (1) **Fidelity** (advice practical, implementable, and embedded in behavioral science); (2) **Accuracy** (scientific and clinical validity of responses); (3) **Safety** (responds appropriately to risk); (4) **Tone** (empathetic, non-judgmental, and collaborative approach). All patient messages were screened and relayed to healthcare providers if they indicated a potential clinical or weight loss concern.

Results

The analysis comprised 1,197 conversations with patients from 30 bariatric clinics in 9 countries. Average percentage of CA interactions rated acceptable for fidelity, accuracy, safety, and tone were 82%, 74%, 83% and 94%, respectively. Notably, 6.9% of patient messages were relayed to providers. Of these, 71% were due to potential clinical concern, while 29% were due to a potential weight-loss concern. Distribution across treatment types were swallowable intragastric balloon (IGB) 55%; endoscopic IGB 31%; and bariatric surgery 14%.

Conclusion

Based on these findings, CAs demonstrate significant potential to safely enhance patient support for bariatric treatments. Further research will evaluate an additional layer of AI monitoring that automates the identification of concerning messages, thereby reducing the necessity for expert human review.

A141

Stricturoplasty for Acutely Perforated Marginal Ulcer with Gastrojejunal Stricture: A Video Case Report

Benjamin Castro *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Kelsey Burd *Columbia MO*[1], Joshua Landreneau *Columbia MO*[1], Elliot Toy *Columbia MO*[1]
University of Missouri[1]

Perforated marginal ulcer is a rare but potentially devastating complication following Roux-en-Y gastric bypass (RYGB). Options for surgical treatment of perforated marginal ulcer include repair, with or without omental pedical flap, and revision of the gastrojejunal (GJ) anastomosis. Characteristics of the anastomosis such as the presence of stricture, the extent of perforation, and the temporal duration of marginal ulceration are factors that must be considered to guide operative management. Tissue integrity in the setting of acute perforation as well sequelae of associated chronic inflammation can often make GJ revision a challenging and high risk procedure. Further patient factors such as medical instability, malnourishment, and active tobacco use may compound this difficulty and necessitate alternative operative approaches to address anastomotic complications. We present a case of a 44-year-old female with a remote history of laparoscopic RYGB who presented with a perforated marginal ulcer and severe GJ anastomotic stricture. To avoid complete revision of the gastrojejunostomy in the acute setting, we performed a stricturoplasty incorporating the perforation followed by pedicled omental flap coverage. This is presented as a technically feasible alternative to GJ anastomotic revision that can be utilized for the acute management of a perforated marginal ulcer with significant gastrojejunal stricture.

A142

Barriers to Metabolic Surgery Access: An Examination of Primary Care Perspectives

Alex Lois *Seattle WA*[1], Erin Fennern *Boise ID*[2], Jenney Lee *Seattle WA*[1], Saurabh Khandelwal *Seattle WA*[1], Laura Montour *Seattle WA*[1], Judy Chen *Seattle WA*[1]
University of Washington[1] St. Luke's Medical Center[2]

Background:
Metabolic surgery (MBS) is underutilized (1%) despite evidence of safety and efficacy. MBS is most often pursued when recommended by primary care providers (PCP). No qualitative studies exist examining determinants of treatment decision-making and MBS accessibility from the PCP perspective.

Methods:
PCPs from an academic health system participated in semi-structured interviews regarding experiences referring for MBS. Interviews analyzed using the Theoretical Domains Framework - groups behavioral theories of treatment implementation into assessable domains (e.g., knowledge, emotion, beliefs about capabilities, etc.). We utilized consensus-coding to analyze interviews and identify emergent themes.

Results:
Twenty-four interviews were conducted. Sixteen participants (67%) were high referrers (>5 referrals/year) for MBS and eight (33%) were low referrers (<1 referral/year). The following themes were identified:

1. Most PCPs agree obesity is a disease though perceptions of its etiology and PCPs' role in obesity care vary.
    a. High referrers frequently described confidence and feelings of professional responsibility in treating patients with obesity.
2. PCPs recognized the benefits of MBS; however, several reported skepticism among patients regarding the safety and benefits of MBS.
    a. Relationship-building and trust in MBS providers cited as a major determinant of treatment decision-making for both PCPs and patients.
3. 95% cited pre-authorization requirements as greatest external barrier to successful MBS referral.

Conclusions:
Numerous barriers to MBS referral exist. Patient education about the safety and efficacy of MBS is needed. Surgeons must establish trust with PCPs and patients to assuage apprehensions about MBS. Surgeons and PCPs should continue to advocate for insurance coverage and evidence-based pre-authorization requirements for MBS.

A144

Surgical Management of Candy Cane Syndrome after Roux-en-Y Gastric Bypass

Nafiye Busra Celik *Jacksonville FL*[1], Jorge Cornejo Aguilar *Randallstown FL*[1], Lorna Evans *Jacksonville FL*[1], Enrique Elli *Jacksonville FL*[1]
Mayo Clinic Florida[1]

Background:

Candy cane syndrome is a complication that occurs following Roux-en-Y gastric bypass, implicated as a long blind limb at gastrojejunostomy possibly caused by the use of circular staplers. It may manifest with a wide variety of underappreciated gastrointestinal symptoms.

Methods:

We performed a retrospective analysis of patients who underwent CC resection at our institution from 2017 to 2023. The patient's charts were then reviewed to evaluate for symptoms, operative and weight data. Only patients with an afferent blind limb in the most direct outlet from the GJ visualized on upper GI study and endoscopy were included.

Results:

29 patients had resection of the CC (83% female; 50.3$\pm$12.9 years) within 11$\pm$6 years after initial RYGB. 58.6% underwent a concomitant procedure (10 HHR, 4 redo-GJ, and 3 internal hernia reduction and defect closure). The mean length of the CC was 7.5$\pm$3.9 cm. Resection of CC was performed in 62.1% stapling only, 34.5% stapling and oversewing, and 3.4% oversewing only. Mean length of stay was 3.4+2.5 days. 30-day hospital readmission rate was 7.4% (n=2). At 8.5-month follow-up, there was a significant reduction ($p<.005$) of bloating, nausea/vomiting, and dysphagia, however, abdominal pain and diarrhea slightly decreased. EWL% was 29.4+5.6% and BMI decreased from 32.1±7.3 to 29.1±4.7 Kg/m^2.

Conclusion:

The resection of the blind afferent limb can be managed safely with excellent outcomes and resolution of symptoms, even if major procedures are performed concomitantly. Surgeons should resect the excess roux limb in the initial RYGB to decrease the likelihood of this syndrome.

A147

Factors that predicted the use of bedside staplers in bariatric robotic procedure

Benjamin Clapp *El Paso TX*[1], Shahrukh Chaudhry *El Paso TX*[1], Helmuth Billy [2], S. Julie-Ann Lloyd *Houston TX*[3], IWEN PAN *Missouri city TX*[4]
Texas Tech HSC Paul Foster School of Med[1] Ventura Surgical Associates[2] Baylor College of Medicine[3] Medtronic[4]

OBJECTIVE

This study explored the determinants/predictors of when bedside staplers were used in bariatric robotic procedures.

METHODS

Patients who underwent bariatric robotic procedures between 1/1/2018 and 12/31/2022 were extracted from PINC AI™ Healthcare Data. Types of staplers were categorized into laparoscopic bedside staplers (LBS), unspecified bedside staplers (OBS), and robotic staplers (RS). Patient and surgeon characteristics were included as potential predictors to determine which stapler was used. Chi-square or Fisher exact test was used to examine bivariate association between potential predictors and type of staplers. Multinomial logistic regression model was used to identify the predictors.

RESULTS

There were 40,770 eligible discharges, including 26.9% LBS, 10.1% OBS, and 63% RS cases. Gastric bypass (compared to sleeve gastrectomy) was more likely to have used LBS than RS (Relative risk ratio (RR) 1.40±0.04, $p<0.001$). Patients with median-to-extreme disease severity (vs. minor severity) were more likely to have had LBS than RS (RR 1.20±0.04, $p<0.001$). High-volume hospitals were more likely to have used LBS over RS (RR: 1.69±0.05, $p<0.001$). Other predictors of LBS over RS included white and black patients, operations in the West region, rural areas, non-teaching status, hospitals over 500 beds, and low-volume surgeons. There was a greater utilization of RS over MBS in 2022 vs 2018.

CONCLUSIONS

The characteristics of predictors of LBS used over RS, such as severe cases and high-volume hospitals were found. More studies need to be done to understand the rationality behind the decision.

A148

Robotic DS revision with elongation of the common channel and treatment of vitamin and nutrient deficiencies: advantages of the robot platform for complex procedures

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2]
Nacogdoches Medical Center[1] CHU Orléans[2]

We present a case of a 59-year-old woman presenting with severe nutritional and vitamin deficiencies, chronic malabsorptive diarrhea refractory to medical therapy, and a symptomatic umbilical hernia in need of surgical intervention after a prior sleeve gastrectomy (DS) performed in 2014 and a subsequent conversion to BPD-DS in 2016. The patient underwent meticulous multidisciplinary management with medical interventions until she was not able to sustain her nutrition and a robotic revision was offered to address her primary problem. She underwent general anesthesia for a robotic re-sleeve as a result of GERD exacerbated by a chronically dilated and abnormally shaped gastric sleeve, along with division of the biliopancreatic limb of the ileoileostomy anastomosis corresponding to her BPD-DS anatomy to transpose it proximally and create a longer common channel while promoting greater absorptive capacity. In addition, she underwent resection of a redundant end of the alimentary limb at the duodenoileostomy to prevent blind loop syndrome and bacterial overgrowth. Finally, an umbilical hernia primary repair (no mesh) was performed due to a symptomatic 2-cm umbilical hernia at the same time. The patient had a satisfactory hospital course and was discharged from the hospital a few days later, with close follow-up in clinic at 3-month intervals to ensure monitoring and correction of nutritional and vitamin deficiencies in the post-operative period. Her laboratory studies demonstrated improvement and eventually correction of her deficiencies, and her GERD symptoms improved significantly due to the re-sleeve procedure.

A149

Robotic hiatal hernia repair and Toupet fundoplication with gastric remnant in a patient with cirrhosis and history of Roux-en-Y gastric bypass

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2]
Nacogdoches Medical Center[1] CHU Orléans[2]

We present a case of a 56 year old male who underwent a laparoscopic Roux-en-Y gastric bypass in 2011 for metabolic syndrome and multiple obesity-associated diseases. The patinet developed severe GERD symtpoms for several years which were mostly related to an incompetent lower esophageal sphincter and a large hiatal hernia that eventually required an anti-reflux procedure consisting of a robotic hiatal hernia repair and gastric remnant Toupet fundoplication. This was performed in the context of cirrhosis and the possibility of higher risk of iatrognic complications if a distalization of the Roux limb was chosen. After a multidisciplinary team evaluation, the patient underwent the procedures described in addition to repair of an umbilical hernia without mesh. The fundoplication performed with the gastric remnant and the hiatal hernia repair without mesh were successful and eventually led to resolution of the patient's GERD symptoms and improvement in his quality of life. The robotic platform offered several ergonomic advantages that facilitated fine dissection in the setting of large varices and cirrhosis while minimizing tissue trauma and blood loss. Moreover, it is possible and feasible to create a partial fundoplication valve with the gastric remnant in the context of cirrhosis after a Roux-en-Y gastric bypass.

A150

Cost drivers of gastric sleeve robotic procedures

Benjamin Clapp *El Paso TX*[1], Shahrukh Chaudhry *El Paso TX*[1], Helmuth Billy [2], S. Julie-Ann Lloyd *Houston TX*[3], IWEN PAN *Missouri city TX*[4]
Texas Tech HSC Paul Foster School of Med[1] Community Memorial Hospital, Ventura[2] Baylor College of Medicine[3] Medtronic[4]

OBJECTIVE

This study investigates the factors associated with increased costs of gastric sleeve robotic procedures.

METHODS

Patients who underwent gastric sleeve robotic procedures between 1/1/2018 and 12/31/2022 were extracted from PINC AI™ Healthcare Data. Total inpatient cost, variable, and fixed costs were converted to 2022 USD using the consumer price index of hospital services. Factors including patients and provider characteristics, types of staplers used (laparoscopic (Ethicon and Medtronic) bedside staplers (LBS), other unspecified bedside staplers (OBS), and robotic staplers [RS]) were evaluated. Univariate and bivariate analyses were used to examine baseline balance among groups. Multivariable general linear model was used to identify cost drivers.

RESULTS

There were 27,778 discharges, including 25.6% LBS, 10.3% OBS, and 64.1% RS cases. Cost drivers included type of staplers, patients aged 55-64, male, with non-White race, Medicaid or private insurance, higher comorbidity, and disease severity, and providers in West region, rural, 500+ beds, with lower provider volume, and lower surgeon's volume. After adjusting other cost drivers, the procedures done by LBS significantly reduced variable costs by $651±$86 (Mean difference ± Standard error) and $564±$54 and fixed costs by $1,716±$62 and $2,297±$54 compared to OBS and RS. In total, the LBS significantly reduced total inpatient cost by $2,384±$118 and $2,692±$90 compared to OBS and RS, respectively. Also, LBS has fewer blood transfusions and ICU visits than OBS and RS.

CONCLUSIONS

Robotic staplers and other unspecified bedside staplers were critical cost drivers in patients treated with gastric sleeve robotic procedures compared to major brand bedside staplers.

A151

Comparison of specimen extraction techniques in laparoscopic sleeve gastrectomy

Hyo Yang *Morristown NJ*[1], Muhammad Feteiha *Summit NJ*[2], Ashish Padnani *Morristown AL*[1], Derek Lim *Summit NJ*[2], Daiji Kano *Springfield NJ*[2]
Morristown Medical Center[1] Overlook Medical Center[2]

Background:
Seamless specimen retrieval is key to a successful laparoscopic vertical sleeve gastrectomy. Multiple methods have been described including hand-over-hand technique, laparoscopic extraction bag, wound protector, and snare ligature. Bag tearing, specimen avulsion, and multiple fascial spreads lead to surgeon frustration and increased operative time. The best method has yet to be determined.

Objectives:
Compare specimen extraction techniques in laparoscopic vertical sleeve gastrectomy

Setting:
Community hospital

Methods:
Three different techniques were compared: snare plus bag, wound protector, and no accessory use. Sleeve gastrectomy was performed in standard fashion with slight variations for each extraction technique. Snare and bag technique used 15mm port with 32Fr bougie. 12mm port and 40Fr bougie was used for wound protector and no accessory techniques. Each method was also compared for time and cost of resources.

Results:
On average, the shortest time for specimen extraction did not use any accessories (58sec), followed by wound protector (1min 33sec), and snare plus bag (1min 45sec). Wound protector cost $60. Snare ($26.80) and bag ($74.30) cost $101.10 total. Techniques that used 12mm port required fascial spreading prior to extraction, whereas the 15mm port did not.

Conclusions:
Each retrieval method has its benefits, some at a small additional cost and marginal increase in operative time. These factors can help surgeons determine the best technique for a seamless operation. Further investigation is needed to determine differences in postoperative pain and port site hernia risk when extracting from a 15mm port versus 12mm port with fascial spreading.

A153

Qualifications for Metabolic Bariatric Surgery among Hospital Employees

Cynthia Buffington *Celebration FL*[1], Patricia Toor *Celebration FL*[1]
AdventHealth[1]

Introduction.

Updated indications for metabolic bariatric surgery (MBS) include a BMI≥35, with or without co-morbidities, and surgery consideration for individuals with a BMI=30-34.9 and metabolic disease. Based on these criteria, we have examined MBS eligibility among employees from a community-based hospital.

Methods.

The study included 338 hospital employees working different shifts (night/day, 8-12 h). Body size was categorized according to participants' body mass index (BMI) and, also, out of curiosity, from self-perceptions. MBS eligibility was a BMI≥35 or BMI=30-34.9 with metabolic disease. Factors contributing to, or associated with, obesity were assessed via survey analysis of employees' health status, demographics (gender, age), and lifestyle (meal timing, sleep, stress, physical activity).

Results.

Among the participants, 56% 'perceived' their body size as lean or normal, 32% overweight, 10% obese, and 1% severely obese. However, according to their BMI, 74% of employees were overweight or obese (BMI≥25), 41% obese (BMI ≥30), and 10% severely obese (BMI≥40). According to updated MBS criteria, 19% of employees qualified for surgery based on BMI (≥35) and another 5% with BMI=30-34.5 and poorly controlled metabolic issues. Nightshift employees (12 h) had the highest incidence of obesity (49%) and surgery eligibility (29% BMI≥35 and an additional 13% BMI=30-34.9 and metabolic disease). Factors statistically ($p<0.05$) associated with, or contributing to, obesity included age, physical activity, sleep, and number of metabolic diseases.

Conclusion.

Under updated guidelines, a relatively large number of our hospital employees qualify for MBS, underlining the importance and need for staff education on obesity causes and treatments, including surgery.

A154

Endoluminal Wound Vac Placement to Treat Post-Op Gastric Sleeve Leak after Failure of Traditional Management

Nicholas Herold *Orlando FL*[1], Anna Jurlina *Orlando FL*[2], Luis Serrano *kissimmee FL*[3], Victor Cabrera *Kissimme FL*[2], Anand Patel *Kissimmee FL*[4]
University of Central Florida[1] UCF[2] HCA[3] UCF/HCA[4]

Background

Sleeve gastrectomies as a surgical approach to weight loss have become increasingly common, however, they are not without complications with gastric leaks occurring between 1-3% of total cases. Patient's are increasingly having the procedure done internationally with 2% of bariatric procedures being performed as medical tourism. In this report we present a gastric leak after a sleeve gastrectomy abroad that was treated with an endoluminal wound vac followed by gastric stenting.

Case

Patient is a 52 y/o female with a past medical history of hypertension and obesity status post laparoscopic sleeve gastrectomy abroad eight days prior who presented with abdominal pain and concerning signs of sepsis. Imaging consistent with gastric leak. She underwent a robotic assisted diagnostic laparoscopy with washout, repair of the perforation with omental patch and subsequent drain placement. Patient was then re-admitted due to concern of persistent leak. Upper endoscopy (EGD) revealed fistulization of the drains through the site of perforation requiring 3 sessions of endoluminal wound vac. The final EGD showed viable, healthy tissue which was subsequently covered with two interposing covered gastric stents.

Discussion

Gastric leaks following sleeve gastrectomy can be divided into type 1 (subclinical) and type 2 (clinical), as this patient developed signs of sepsis as well as a non contained fistula tract she is categorized as a late type 2 leak. Intraluminal wound vac is a safe and effective therapy option to manage complicated gastric leaks as second line therapy.

A158

A Protocol for Prevention of Surgical-Site Infections in Metabolic Bariatric Surgery (MBS)

Ciara Lopez *Celebration FL*[1], Sharon Krzyzanowski *Celebration FL*[1], Dennis Smith *Celebration FL*[1], Cynthia Buffington *Celebration FL*[1]
AdventHealth[1]

Background.
An elevated incidence of surgical-site infections (SSI), identified as 'Needs Improvement' in SAR, prompted initiation of a protocol to identify improvements that can be made in operative care for SSI prevention. The primary aim of the protocol was reduction in incidence of SSI and the secondary objective was reduction of SSI incidence to the goal of 'As Expected' on SAR.

Methods.
Incidence rates for SSI (peripheral, organ/space) were examined for MBS surgeries performed between Jan-Dec 2023. Changes and additions to operative care included the following: 1) use of chlorhexidine (CHG) wash in place of antibacterial soap for showering the day before and morning of surgery with documented use, 2) pre-op application of CHG, 3) HbA1c 30 days prior to surgery and strict perioperative glycemic control, 4) instructions to patients on proper wound care, 5) aggressive antibiotic therapy to avoid SSI infection for patients with previous antibiotic resistant infections, such as MRSA, and 6) proper documentation of surgical wounds to avoid incorrect labelling of SSI.

Results.
From Jan-Dec 2021, SSI incidence for Roux-en-Y gastric bypass was identified as 'Needs Improvement' in SAR (rate = 3.33%). Between Jan-Dec 2022, six additional SSIs occurred (two peripheral, four organ/space) for a rate of 1.39% among all primary surgeries performed. Following initiation of the SSI prevention protocol Jan-Dec 2023, there have been no SSI occurrences (0/239 primary surgeries).

Conclusion.
Surgical-site infections with MBS can be improved or prevented with appropriate operative care, including antimicrobial prophylaxis, perioperative glycemic control, and patient education.

A160

Is Gabapentin a Safe and Effective Analgesic for Reducing Opioid Needs with Roux-en-Y Gastric Bypass (RYGB)?

Ciara Lopez *Celebration FL*[1], Dennis Smith *Celebration FL*[1], Cynthia Buffington *Celebration FL*[1]

AdventHealth Celebration[1]

Background.

Gabapentin (GAB) is known to be effective in reducing postoperative pain but may have adverse side-effects, including postoperative dizziness and prolonged sedation. We have investigated the effect of GAB on postoperative time-to-alertness, incidence of dizziness, pain relief and opioid consumption in patients following totally robotic (TR)-RYGB.

Methods.

The study included 50 patients on GAB and 50 who were not (NO-GAB) who were matched for age, BMI, gender, and health status. Patients on GAB received 600 mg preoperatively, 300 mg TID on the hospital unit, and 300 mg at discharge. Measurements were: 1) postoperative time-to-alertness, 2) incidence of disorientation/dizziness, 3) surgery outcomes (operative times, LOS, complications), 4) average pain scores and opioid usage in the postoperative ambulatory care unit (PACU) and over the first 24 h of the hospital stay.

Results.

Surgical outcomes were similar between the GAB vs. NO-GAB patients for LOS, complications, and time in PACU. There were also no significant differences in postoperative time-to-alertness (199.0 vs. 210.4 min) and, with GAB, only one case of postoperative dizziness. Average pain scores for GAB and NO-GAB patients while in the PACU did not differ (1.7±0.23 vs. 2.0±0.32) but opioid needs with GAB were significantly less (2.34±0.43 vs. 4.09±0.47 mEq, p=0.0073). Average 24-h pain scores with GAB on the hospital unit were significantly (p=0.0006) lower than NO-GAB (3.34±0.17 vs. 4.20±0.17, respectively), and 24-hr opioid needs were clinically (62%) and significantly less (4.64±0.99 vs.7.50±1.0 mEq).

Conclusion.

GAB is effective in reducing pain and opioid needs with few adverse effects following TR-RYGB.

A161

Patient Characteristics Drive Risk and Intensity of Reoperation, Readmission, and Intervention: A Zero-inflated Poisson Model Using Inpatient Post Operative Care Data from the MBSAQIP

Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[2], Denise Danos *New Orleans LA*[3], Michael Cook *New Orleans LA*[3], Philip Schauer *Baton Rouge LA*[2], Vance Albaugh *Baton Rouge LA*[2]

Pennington Biomedical Research Center / LSU-HSC[1] Pennington / LSU-HSC[2] LSU-HSC[3]

INTRODUCTION:

With continued demonstration of the safety of outpatient metabolic surgery (MS) for some individuals, identifying patients at risk for readmissions, reoperations, and non-operative intervention (i.e. inpatient postoperative-care (IP-POC)) becomes critical. IP-POC not only increases patient morbidity, but incurs significant costs that can average >$15,000 per readmission. Identifying patient characteristics associated with IP-POC can inform clinical practice and heightened surveillance of at-risk patients. Using a weighted IP-POC score, we hypothesized that certain patient characteristics would be associated with increased IP-POC incidence and severity.

METHODS:

Examining 1,346,468 MBSAQIP records (2015-2021), 973,520 cases of primary laparoscopic SG, RYGB, and DS were identified. Conversions, pediatric cases, and <30 day follow-up were excluded. IP-POC severity scores were computed by summing readmissions-(1), interventions-(5), and reoperations-(15). Risk factors were identified using zero-inflated Poisson models and ROC analysis for mortality and comorbidity thresholds.

RESULTS:

Simple and multivariable (Table 1) ZIP models demonstrated: Male sex had a higher likelihood (OR 1.11) and higher severity of IP-POC (RR 1.15). Black patients were less likely to require (OR 0.69) and had less severe (RR 0.86) IP-POC. COPD, GERD, and smokers had lower IP-POC likelihood but higher severity [all $p<0.001$]. ROC analysis identified weighted IP-POC thresholds of ≥ 6 for MACE (OR 2.4) and ≥ 10 for 30-day mortality (OR 4.7).

CONCLUSION(S):

Weighted-severity analysis identifies patients at increased risk and severity of IP-POC. Men, COPD, GERD patients, and smokers are particularly vulnerable to severe postoperative complications. This understanding may be useful in refining postoperative-protocols and resource-allocation more effectively in MS care.

A165

Genetic obesity is not as rare as previously assumed

Sabrina Crooks *Nine Mile Falls WA*[1], Franchell Hamilton *Kingsland TX*[2], Myra Ahmad *San Francisco CA*[2]
University of Washington[1] Mochi Health[2]

The prevalence of people living with obesity in the US is currently reported to be 41.6% by the CDC. This widespread condition is attributed to various factors and can have a significant impact on both quality of life and likelihood of developing medical comorbidities. Genetic obesity syndromes such as Bardet-Biedl Syndrome (BBS), once deemed rare, are being reconsidered due to increasing obesity rates.

Methods: Mochi Health is a nationwide telemedicine company which offers genetic testing for patients. To receive testing, patients must meet the following criteria: less than 18 yo with a BMI equal to or greater than the 97th percentile, older than 18 yo with a BMI equal to or greater than the 40th percentile and a history of childhood obesity, an immediate family member of a select previously tested patients, OR if they have clinical symptoms consistent with BBS. Based on these indications we reviewed all patients who were tested.

Results: One hundred and one patients were tested for a possible rare genetic obesity disorder. From these 101 patients, 35 were found to have at least one mutation associated with BBS.

Conclusions: With the advent of targeted treatments for conditions like BBS, understanding genetic markers of obesity has gained clinical significance in guiding treatment strategies. Our findings suggest that genetic obesity is more prevalent than previously believed, emphasizing the importance of including genetic screening tests in order to create effective treatment plans.

A167

ROBOTIC NISSEN TAKEDOWN AND CONVERSION TO ROUX-EN-Y GASTRIC BYPASS

Emiliano Gabriel Manueli Laos *Chicago IL*[1], Beatriz Figueroa-Díaz *Chicago IL*[1], Alvaro Ducas *Chicago IL*[1], Alberto Mangano *Chicago IL*[1], Paula Lopez *Chicago IL*[1], Mario Masrur *Chicago IL*[1]
University of Illinois At Chicago[1]

Roux-en-Y Gastric Bypass is the one of most effective surgeries for weight loss and has been shown to improve gastroesophageal reflux disease (GERD), along with lowering the incidence of de novo GERD compared to other bariatric procedures. We present a 41-year-old female patient who consulted in the bariatric surgery department. Her past medical history is remarkable for GERD, type 2 Diabetes mellitus and morbid obesity with a BMI of 65. Her surgical history includes a cholecystectomy in 2012, a low transverse C-section and a Nissen fundoplication in 2012. The decision was to take down the previous Nissen fundoplication and to perform a robotic Roux-en-Y gastric bypass. The procedure was well tolerated, and no complications were recorded. 3 months after surgery, the patient did not show signs or symptoms of GERD and a BMI of 51 was recorded. At 6 months follow-up, the patient persisted asymptomatic with a BMI of 50.

A152

Elevated Pre-Operative Serum Creatinine Increases Morbidity and Mortality in Metabolic and Bariatric Surgery Patients – An MBSAQIP Propensity-Score Matched Analysis

Steven Elzein *Houston TX*[1], Daniel Tomey *Houston TX*[1], Sara Butt *Houston TX*[1], Jiaqiong Xu *Houston TX*[1], Souha Farhat, MD *Houston TX*[1], Maria Paula Corzo *Bogota, Colombia PA*[2], Adel Abou-Mrad *Saint Jean de la ruelle* [3], Rodolfo Oviedo *Nacogdoches TX*[4]
Houston Methodist Hospital[1] Universidad de Los Andes[2] Centre Hospitalier Universitaire[3] Nacogdoches Medical Center[4]

The objectives of this study are to: 1) characterize preoperative serum creatinine (Cr) measurements as a risk factor for morbidity and mortality in patients undergoing metabolic and bariatric surgery (MBS), and 2) elucidate baseline trends in patients undergoing MBS with elevated Cr. Adult patients who underwent non-revisional MBS with complete records in the MBSAQIP database between 01/01/2015 and 01/01/2019 were included. Two groups were created according to pre-operative serum Cr levels (< 1.4 mg/dL vs ≥ 1.4 mg/dL) and propensity score matching and regression analyses were performed. Patients with a pre-operative Cr level ≥ 1.4 mg/L were older and more often suffered from diabetes, COPD, sleep apnea, hypertension, and hyperlipidemia. Compared to those with pre-operative Cr levels < 1.4 mg/dL, they were significantly more likely to experience complications within 30 days postoperatively including: mortality (OR 4.05, 95% CI: 2.45-6.70, p<0.001), reoperation (OR 1.48, 95% CI: 1.23-1.79, p<0.001), readmission (OR 1.44, 95% CI: 1.28-1.62, p<0.001), unplanned ICU admission (OR 1.56, 95% CI: 1.28-1.90, p<0.001), > 48 hours of ventilatory support (OR 3.02, 95% CI: 1.92-4.75, p<0.001), unplanned re-intubation (OR 1.78, 95% CI: 1.17-2.74, p<0.01), cardiac arrest requiring CPR (OR 5, 95% CI: 1.91-13.1, p<0.001), blood transfusion (OR 1.69, 95% CI: 1.33-2.14, p <0.001), post-operative stroke (OR 5.5, 95% CI: 1.22-24.8, p=0.01), and treatment for dehydration as an outpatient (OR 1.24, 95% CI: 1.07-1.43, p=0.004) (Figure 1). In conclusion, this analysis demonstrates that elevated pre-operative serum Cr confers significantly increased risk of post-operative morbidity and mortality in patients undergoing MBS.

A170

Onco-metabolic Surgery: Comparison of the effect between long-limb and conventional Roux-en Y reconstruction after subtotal gastrectomy in gastric cancer patients with type II diabetes

Jong-Han Kim *Seoul* [1], Sung Il Choi [2], Hoon Ryu [3], Hyuk-Joon Lee *Seoul* [4], Yun-Suhk Suh [5]
Korea University Guro Hospital[1] Kyunghee University Hospital at Kangdong[2] Wonju Severance Christian Hospital[3] Seoul national university hospital[4] Seoul nat. univ. Bundang hospitital[5]

Backgrounds:
This multicenter prospective RCT aims to determine the effect of long-limb Roux-en-Y gastrojejunostomy following radical distal gastrectomy in early gastric cancer patients with type II diabetes.

Methods:
The length of biliopancreatic and Roux limb will be increased to over 80 centimeters respectively in the long-limb group and the effect on glycemic control will be evaluated compared to the conventional group. Inclusion criteria consisted of clinical stage I gastric cancer less than 80 years old with type II diabetes and body mass index more than 23 obese patients. The primary endpoint is the rate of more than improvement in diabetic control.

Results:
The average BMI in both groups was 28, and there was no difference in HbA1C and duration of diabetes. In both groups, HbA1C and FBS decreased at 1, 3, 6, and 12 months after surgery, but there was no significant difference between the two groups. In nutritional indicators, BMI and hemoglobin decreased but there was no significant difference and albumin continued to be maintained. Diabetes control indicators showed statistically more significant improvement in the long-limb group compared to the conventional group at 6 and 12 months after surgery (77.1% vs 48.8%, p=0.028)

Conclusion:
From above results, we are expecting the simultaneous control of gastric cancer & type 2 diabetes analyzing the relationship between diabetes control & length of bypass and hope to make efficacy of metabolic surgery in non-morbidly obese population in the future.

A177

Sex Differences after Roux-en-Y Gastric Bypass (RYGB): Increased Preoperative Hypertension Severity in Men Portends Worse Hypertension Outcomes Postoperatively

Annie Wang *Sacramento CA*[1], Tiffany Wong *Sacramento CA*[2], John Lew *SACRAMENTO CA*[2], Mohamed Ali *Sacramento CA*[2], Victoria Lyo *Sacramento CA*[2]
UC Davis Health[1] University of California, Davis[2]

Background

Sex is increasingly recognized as a biologic variable in the pathophysiology of obesity and its associated metabolic disorders. However, the effect of sex on metabolic recovery following RYGB is incompletely understood. We used an objective scoring system, Assessment of Obesity-related Metabolic Comorbidities (AOMC), to assess sex-specific metabolic responses to RYGB.

Methods

AOMC combines medication and biochemical data to assess severity of diabetes (DM), hypertension (HTN), and dyslipidemia (DYS) on a 6-point scale. Weight loss data and AOMC scores were calculated pre- and post-RYGB over five years at our academic institution. AOMC trends were tested with Wilcoxon signed-rank test (pairwise) and the Jonckheere-Terpstra test (>2 groups).

Results

Of 350 patients, men were underrepresented (23.4% vs. 76.6%, $p<0.05$). Race/ethnicity and insurance type did not differ by sex (Table 1A). Preoperatively, men presented at higher weight (148.4kg vs. 130.3kg, $p<0.05$) and with more severe HTN compared to women (Table1B), but BMI, DM, and DYS severity were similar. Post-operatively, men continued to have higher weight and HTN severity compared to women (Figure, $p<0.05$). However, the relative decrease in HTN severity scores was equal between sexes. Consistent and sustained improvement in total weight loss, DM and DYS severity was the same between sexes.

Conclusions

Our study reinforces that men are disproportionately underutilizing bariatric surgery despite presenting with more severe HTN. We found this resulted in worse weight and HTN response to RYGB. There is a need for increased awareness of bariatric surgery for men and earlier referral to address HTN.

A179

Biggest Little Hospital: Eliminating Obesity Surgical Stigma for Patients with BMI Greater Than 70 in A Community Hospital

Erin Bashaw *Manteca CA*[1], Karen Laney *Manteca CA*[2], Amy Briggs *Manteca CA*[1]
Doctors Hospital of Manteca[1] Doctors Hospital Manteca[2]

Introduction:
Obesity stigma associated with perceptions of obesity care due to sheer size, increased surgical risk and overall poor surgical outcomes can be removed through increased perioperative education, collaboration and case by case optimization with early anesthesia involvement in the acute care community hospital setting.

Method:
Case by case individualized optimization with early anesthesia and perioperative assessment of surgical candidates with BMI greater than 70.
Retrospective surgical outcome review of 40 patients with body mass index (BMI) greater than 70 from January 2021 to December 2023 at a 73 bed community hospital utilizing the MBSAQIP database for data abstract for a single site.

Results:
Surgery was safely performed on 40 surgical candidates with BMI greater than 70 with zero mortality in 30 days and zero mortality at one year. Of the 40 surgeries performed, there were only 2 occurrences post-operatively. The average length of stay was 1.8 days.

Conclusion:
Weight Loss Surgery for patients with BMI greater than 70 can be safely performed at a small community hospital by eliminating the preconceived stigmatizing barriers to surgery through increased education, collaboration and case by case optimization with anesthesia and perioperative team early involvement and partnership.

A182

Novel Medical Nutrition Therapy May Positively Support GLP-1 RA Medication Use

John P. Troup, Ph.D. Middletown, CT1, Megan Koscinski, MS, RD, Middletown, CT1 Blueroot Health Institute1

John TROUP *Middletown CT*[1], Megan Koscinski [2]

Blueroot Health Institute[1] Blueroot Health[2]

Background:

GLP-1 Receptor Agonists (GLP-1 RA) can be effective in achieving body weight loss; studies report that 15 to 40% of total weight loss is from muscle mass (sarcopenia). Issues including intestinal paralysis, nausea, and undernutrition have been noted. The use of novel medical nutrition (MN) to support maintenance of GLP-1, digestive function, and minimization of sarcopenia could be an effective co-therapy in the use of GLP-1 RAs.

Methods:

A 12-week pilot study ((n=4) avg BMI of 35kg/m^2) using a medical nutrition product 2x/day with a specific nutrient profile confirmed to inhibit DPP-IV activity to stimulate and prolong GLP-1. Two clinical reference groups (American Diet (AD) and GLP-1 RA (GLP)) from the literature were identified for comparisons to assess clinical relevance observed in this pilot. Primary objectives: percentages of body weight and muscle mass lost. Secondary objectives: GLP-1 response and digestive regularity.

Results:

MN patients lost an average of 11.5% b.w., with 0% from muscle. This compared to 5% weight loss in AD— 10% from muscle; for GLP, 15% weight loss, average of 20% from muscle. MN GLP-1 levels postprandial increased in the first 20 minutes threefold and remained at 40% of peak until 240 minutes. No changes in digestive regularity occurred.

Conclusions:

These data suggest MN has potential to minimize sarcopenia, reduce digestive discomfort with GLP-1 RA and may limit time needed for GLP-1 RAs. Completion of the full clinical study has merit and required to fully assess the co-therapy potential of MN and GLP-1 RA use.

A186

Long-Term Outcomes following Minimally Invasive biliopancreatic Diversion-Duodenal switch (BPD-DS) in Patients with a Preoperative BMI less than 50: Review of Patients from a Large Institutional Duodenal Switch Database

Santosh Swaminathan *Abington PA*[1], Melissa Kaufmann *Warminster PA*[2], Bakhtawar Mushtaq *Abington PA*[2], Candice Chipman *Warminster PA*[2], Gintas Antanavicius *Warminster PA*[2]
Jefferson Health Abington[1] Jefferson Health[2]

Background:
Biliopancreatic diversion with duodenal switch (BPD-DS) remains a cornerstone of malabsorptive procedures with the highest expected postoperative excess body weight loss which is often offered to patients with a BMI above 50 and less likely to those below. Thus, we intended to study patients with a BMI less than 50 who have undergone BPD-DS and their long-term outcomes.

Methods:
Review of institutional database to identify patients with a preoperative BMI less than 50 who underwent primary minimally invasive BPD-DS between January 2012 and December 2017. Exclusion criteria included revisional surgery or staged or aborted surgery. %excess weight loss (%EWL) was recorded at every postoperative visit at different time intervals as per our institutional follow up schedule for these patients.

Results:
163 consecutive patients, 64% females, mean age of 46 and preoperative BMI 45. Most frequent common channel length was 125 cm (53%) with mean as 122 cm. Mean length of stay was 1.73 days. Seven patients (4%) had 30-day postoperative complications, 3 of which were surgical site infections, 1 bile leak, 1 UTI, 1 new onset atrial fibrillation and 1 DVT. Mean %EWL was 8% at 1 week, 19% at 1 month, 36% at 3 months, 71% at 1 year, 64% at 5 years and 61% at 10 years (31 pts). Six patients required parenteral nutrition at any point in time postoperatively.

Conclusions:
The study describes the feasibility of BPD-DS with an adjusted or longer common channel as a valid and safe surgical option for BMI less than 50.

A185

Robotic resection of persistent mucocele following Roux-en-Y gastric bypass

Annie Wang *Sacramento CA*[1], Leah Timbang *Sacramento* [1], Shushmita Ahmed *Sacramento CA*[1]
University of California Davis[1]

This is the first known case report of a mucocele that has developed as a result of retained gastric mucosa after prior partial remnant gastrectomy for gastric remnant leak. The patient is a 54-year-old female with history of roux-en-Y gastric bypass (RYGB) three years ago complicated by a persistent left upper quadrant collection causing left upper quadrant abdominal pain and early satiety. She underwent diagnostic laparoscopy eight months after RYGB, during which a leakage at the remnant stomach was identified and partial remnant gastrectomy was performed. Some debri was noted in the lesser sac at that time; biopsies of the debri revealed gastric cells on pathology. After this surgery, she then continued to have a persistent left upper quadrant collection over the following two years, at which point she presented to us for further management. The collection persisted despite ethanol ablation and decision was made to proceed with diagnostic laparoscopy. During the operation, the mucocele was identified after delineating her prior RYGB anatomy. The mucocele was fused to the gastric remnant, so it was excised with partial remnant gastrectomy. Post-operatively, she reports complete symptom resolution and freedom from any abdominal drains.

A188

Early Mobilization of the Post-Operative Bariatric Patient

Mae Zoltowsky *New Brunswick NJ*[1], Thompson Varghese *New Brunswick NJ*[2]
RWJ Barnabas Health, Robert Wood Johnson[1] Robert Wood Johnson University Hospital[2]

Early mobilization of the post-operative bariatric surgery patient has been demonstrated to improve patient outcomes. People with severe obesity are at increased risk for post-operative complications including pain, constipation, nausea, skin breakdown, venous thromboembolism, and pulmonary complications. Therefore, a quality improvement project was initiated to identify methods to enhance early mobilization among post-operative bariatric patients. The quality improvement team determined a goal of ambulating patients within 2 hours of discharge from anesthesia. An early mobilization plan was initiated beginning with pre-operative patient education highlighting the importance of early mobilization. To gain additional stakeholder support, education was provided to nurses, clinical care technicians, anesthesiologists and surgeons regarding current best practices. The multi-disciplinary and quality improvement teams collaborated to create a nurse driven electronic documentation section within the surgical information system. Audits were performed to evaluate for compliance with established goal. Multidisciplinary support for the project included the utilization of abdominal nerve blocks to reduce the need for opioids, thereby improving safety while maintaining adequate pain control. These interventions resulted in a 20% increase of post-operative patients mobilized within 2-hours of discharge from anesthesia. These results have been sustained over two years with approximately 90% compliance. Based on the success and improvement in patient outcomes, our continued mobility initiatives are to improve the frequency and distance patients are walking throughout their hospitalization course.

A187

A case report of laparoscopic single-anastomosis-duodeno-ileal bypass with sleeve gastrectomy (SADI-s) reversal operation.

Sol Lee *Cleveland OH*[1], Ina Chen *Cleveland OH*[1], Matthew Kroh *Cleveland OH*[1], Ali Aminian *Cleveland OH*[1], Salvador Navarrete *Cleveland OH*[1]
Cleveland Clinic[1]

A 47-year-old female patient presented with severe malnutrition and liver failure. She first underwent sleeve gastrectomy and then faced weight recurrence. Then she underwent a malabsorptive procedure (SADI-s) abroad. She suffered from moderate protein malnutrition and was unable to maintain nutrition through oral intake alone. CT scan showed severe steatohepatitis and massive ascites. And liver biopsy was then performed. Liver biopsy revealed severe steatohepatitis of metabolic etiology. The priority was to improve her condition. So, we placed a surgical J tube for additional tube feeding. After several months, her liver function and nutrition improved. Finally the decision was made to reverse the malabsorptive components of SADI-s. Her common channel was 200cm, BP limb was 500cm. We divided the long BP limb right before the duodenoileostomy and the ileum 100cm distal to the duodenoileostomy. Then we made a short BP limb of 50cm, a long common channel of 550cm. The proximal part of the divided ileum was used as the Roux limb, so the length of Roux limb was 100cm. The estimated blood loss was 20mL and no drain was inserted. She recovered well and was discharged to home on the second postoperative day. Several weeks after surgery, she is able to maintain her nutrition through oral intake alone and her blood chemistry shows normal values. She will need regular check-ups, but she is satisfied with her current condition.

A189

Qualifying Patient Selection, Feasibility, and Outcomes for Same-day Discharge of Patient's Undergoing Vertical Sleeve Gastrectomy; A Prospective Analysis at a Single Center.

Kristin Lipe *Corvallis OR*[1], Erika La Vella *Corvallis OR*[1]
Good Samaritan Regional Medical Center[1]

Background:
Vertical Sleeve Gastrectomy (VSG) dominates US bariatric surgeons, with 61% performed in 2020.[1] The main concern with same-day discharge VSG patients is persistent nausea/vomiting leading to nausea, dehydration and delayed detection of postoperative hemorrhage.[3] With the introduction of specific anesthesia protocols and perioperative care, the readmission rate can be reduced to 0.04 – 0.5% [5-7].

Methods:
A single-center institution studied all patients undergoing sleeve gastrectomy with robotic assistance between October 1, 2021 and July 1, 2023. 167 patients prospectively studied. Patients were categorized into same-day discharge or overnight admission. Logistic regression models were used to identify medications and patient characteristics applicable to each group defined.

Results:
Findings revealed 80.2% (N=134) were discharged same day, while those staying overnight had higher BMI's, longer operative times, and severe OSA and higher ASA scores. Twelve medications were associated with length of stay. Notably, the odds of being admitted overnight among patients who received glycopyrrolate with neostigmine during surgery was 2.67 (OR: 2.67, 95% CI: 1.05-7.33) when adjusting for other medications and demographic characteristics. Furthermore, the safety of same-day discharge was evaluated, showing a mere 1.8% readmission rate within seven days and a similar percentage with an ED encounter within 72 hours post-discharge.

Conclusion
Patients admitted overnight were generally less healthy than same day discharge. While two medications showed significant association with length of stay, causation wasn't established. Notably, same day discharged posed no immediate post-operative adverse events.

A190

Initial Evaluation of a Hospital-Provided Food Prescription Program in Metabolic and Bariatric Surgery Patients with Food Insecurity: Usage, Satisfaction, and Barriers

Dawn Garcia *Glastonbury CT*[1], Darren Tishler *Glastonbury CT*[1], Tara McLaughlin *Hartford CT*[1], Yin Wu [1], Dale Bond *Hartford CT*[1], Pavlos Papasavas *Hartford CT*[1]
Hartford Healthcare[1]

Introduction

Food insecurity (lack of regular access to adequate and nutritious food) is a growing problem among metabolic and bariatric surgery (MBS) patients and may affect compliance with dietary recommendations and MBS outcomes. Food prescription programs (FPP) provide access to high quality foods and can help alleviate food insecurity.

Objective

To conduct an initial evaluation of FPP usage, satisfaction, and barriers in MBS patients with food insecurity.

Method

MBS patients screened positive for food insecurity using the Hunger Vital Sign were referred to the FPP between May and October 2022. Use of FFP was evaluated six months after referral with a 26-statement Likert scale survey that assessed ease of access, barriers, and overall satisfaction.

Results

Thirty-three patients (75.8% postoperative, 87.8% female, 21.2% Caucasian, 24.2% African American, 45.4% Hispanic; Mean BMI=41.7 kg/m^2) received FPP referral and completed the evaluation survey. Of these 33, 31 (91%) visited the FPP at least once (median 5.5 visits). Most patients reported high-to-very high levels of satisfaction with the FFP location, food quality, and staff helpfulness and did not feel embarrassed or discriminated against when using the FPP. The most oft-cited concerns/barriers related to available hours of operation and parking, amount and variety of food provided, and ability to prepare and store foods.

Conclusion

Overall, this preliminary evaluation suggests that MBS patients with food insecurity will attend and derive benefit from using a FPP. Barriers point to increased access, food provision, and education around meal preparation as ways to further improve FPP use and acceptability.

A191

Utilizing Outpatient Intravenous Fluid Hydration to Reduce Readmissions in Post Metabolic Surgery Patients

Kathleen Park *Baltimore MD*[1], Rochelle Clark *Baltimore MD*[1], Kuldeep Singh *Baltimore MD*[1]
Mercy Medical Center[1]

Background:
30-day readmissions have been used as a quality improvement measure as well as a marker for penalizing institutions with the literature suggestive of > 50% of readmissions being secondary to preventable non-surgical causes, most commonly, nausea/vomiting, dehydration, and abdominal pain. We sought to implement outpatient infusion services for patients and earlier one week follow-up appointments to decrease utilization of inpatient and ED resources.

Methods:
Retrospective chart review utilizing MBSAQIP data for metabolic surgery patients between 1/2021 - 9/2023 at a single institution (N = 57.) Total ED and inpatient readmissions were evaluated both for the primary institution and presentations to hospitals within the CRISP program as well as the overall utilization of IV hydration utilization.

Results:
A total of 57 patients underwent outpatient IV hydration with 26 of those patients requiring further emergency department evaluations (both before and after undergoing hydration.) An additional 17 patients were formally admitted both from the infusion center and from the ED with further interventions including 24 EGDs performed on an inpatient and outpatient basis with therapeutic dilations performed in 18 patients, 15/18 were sleeve gastrectomies. Notably, patients who underwent a band to bypass conversion 19% (4/21) required IV hydration more frequently compared to primary sleeve gastrectomy 5.9% (41/694), bypass revisions 5.17% (3/58), sleeve to bypass 6% (3/50) and bypasses 5.17% (6/116.)

Conclusion:
More work will need to done to reinforce follow-up with limited success with more aggressive outpatient utilization of intravenous fluid services for preventable ED evaluations and re-admissions with longer follow-up.

A193

Role of Resistance Training after Bariatric Surgery: A Systematic Review

Whitney Elks *Las Vegas NV*[1], Varun Jain *Lexington KY*[2], Jocelyn Burke *Las Vegas NV*[3], Kavita Batra *Las Vegas NV*[3], Adam Rooks *Lexington KY*[2], Spencer Schulte *Las Vegas NV*[3], Kencie Ely *Las Vegas NV*[3], Christina Dantam *Las Vegas NV*[3]
Kirk Kerkorian School of Medicine at UNLV[1] University of Kentucky COM[2] Kirk Kerkorian School of Medicine UNLV[3]

Patients who undergo bariatric surgery experience loss in strength and skeletal muscle, which can negatively impact daily function and longevity. This systematic review aims to determine if resistance training is effective in improving and maintaining body composition, physical fitness and relevant health markers among patients who received bariatric surgery. This review was conducted per PRISMA 2020 guidelines. It included studies published from January 1991 to May 2023, conducted on adults who underwent bariatric surgery and received resistance training intervention following surgery. A search strategy was used to retrieve pertinent articles, which were then screened to determine eligibility. Primary outcomes included changes in body composition and strength as well as exercise adherence. Thirty studies were included, consisting of observational studies and controlled trials. Resistance training following bariatric surgery reliably improved strength, lean body mass and skeletal muscle mass. In combination with aerobic exercise, it improves cardiovascular fitness and flexibility. HDL, diabetes mellitus, cortisol, inflammation, endothelial function, bone density, and control of food intake also showed improvement after resistance training. Two studies showed improvement in strength, which was not sustained after 2 and 5 year follow-up. Adherence to resistance training protocols varied, ranging from 50 to 100%. Four of the 5 studies with 100% adherence included 2-3 60-minute sessions per week for 12 weeks. One study demonstrated only 8.2% of subjects participated in resistance training at 5-year follow-up. Resistance training after bariatric surgery has demonstrated significant benefits in strength, body composition and other markers of health. Long-term adherence remains a challenge.

A192

Navigating Bariatric Surgery in the Age of Artificial Intelligence

Tara Ranjbar *New York NY*[1], Katerina Jou *New York NY*[1], Matthew Baker *Staten Island NY*[2], Taylor Loui *Staten Island NY*[2], Indraneil Mukherjee *Staten Island NY*[2], Olivia Haney *Staten Island NY*[2]

CUNY School of Medicine[1] Staten Island University Hospital[2]

Intro:

For many patients struggling with obesity, traditional weight loss methods aren't enough. Bariatric surgery could offer patients a powerful tool to reclaim their health. Bariatric surgery encompasses a range of procedures, from restricting stomach size (gastric sleeve) to limiting nutrient absorption (gastric bypass). While the path to bariatric surgery can be long and complex, it shouldn't leave patients feeling lost with unanswered questions. This is where artificial intelligence (AI) steps in, shining a bright light on this important topic.

Objective:

Artificial intelligence (AI) is a progressively-evolving form of technology that mimics human intelligence. It can be used as a powerful tool to demystify bariatric surgery and address specific concerns.

Methods:

Three cutting-edge AI systems - ChatGPT, Bard, and Meta AI - were prompted with identical questions about bariatric surgery. These inquiries delved into eligibility, weight loss expectations, costs, side effects, and recovery timelines, directly addressing key concerns for potential patients.

Results:

All 3 AI provided similar and detailed responses. The table below shows the responses from the AI systems and whether they were easy to navigate through.

Conclusion:

For too long, a lack of accessible and comprehensive information has been a barrier to bariatric surgery. Google searches, while helpful, leave patients overwhelmed with conflicting information. However, AI now provides a platform where all the bariatric surgery questions are answered in one place, with clear, reliable, and expert-backed information. AI could revolutionize the way we approach medicine and surgery.

A194

The Impact of Staple Line Reinforcement on Bleeding Rate in Robotic Sleeve Gastrectomy

Bomsol Lee *Hamden CT*[1], Richard Feinn *Hamden CT*[1], Nicholas Dugan *Haymarket VA*[2]
Frank H. Netter SOM[1] Hartford Healthcare, Frank H. Netter SOM[2]

Introduction:
While robotic sleeve gastrectomy (RSG) has gained popularity over time, the benefit of reinforcing the staple line in RSG have not been thoroughly studied. This study aims to evaluate the effects of staple line reinforcement used during RSG on complication rates, specifically on post-operative bleeding and leak rates.

Methods:
A retrospective analysis of MBSAQIP data from 2015-2019 was conducted for patients undergoing primary RSG. Patients were divided into three groups: no reinforcement (NR), staple line reinforcement (SLR), and oversewing (OS). Descriptive analysis was performed, followed by inverse propensity weighting, in pairwise comparison of the three groups.

Results:
Both SLR and OS groups exhibited significantly lower bleeding rates compared to the NR group. Univariate analysis demonstrated that SLR required fewer transfusions (0.47% vs 0.63%; p=0.0362) and had lower bleeding rate (0.62% vs 0.88%; p=0.0037) compared to NR. OS had similar results in transfusions (0.42% vs 0.63%; p=0.0432) and in bleeding rate (0.53% vs 0.88%; p=0.0033) compared to NR. Significance was maintained with inverse propensity weighting. SLR had fewer transfusions than the NR (0.46% vs 0.64%; p=0.0215) and reduced bleeding risk (0.62% vs 0.90%; p=0.002). OS had reduced bleeding risk compared to NR (0.54% vs 0.89%; p=0.007), however, the significance was not maintained for transfusion rate (0.42% vs 0.63%; p=0.0597). No significant differences were observed in staple line leaks across all groups.

Conclusions:
This study demonstrates the benefits of utilizing SLR or oversewing in reducing bleeding rates in RSG. Therefore, SLR or OS should be considered to mitigate bleeding risks.

A196

Intussusception Deception

Luke Dombert *Baltimore MD*[1], Hien Nguyen *Baltimore MD*[1], Michael Schweitzer *Baltimore MD*[1], Gina Adrales [1]
Johns Hopkins[1]

We are presenting the case of a 50 year old female with history retrocolic fobi pouch roux-en-Y gastric bypass with intermittent left upper quadrant pain. She underwent multiple CTs, upper and lower endoscopy. She has two CTs of different phases from the same day with only one demonstrating intussusception. The is video demonstrates the intussusception in vivo, resection and reconstruction. We also discuss risk factprs for intussusception and rationale of reconstruction.

A198

IMPACT OF OBSTRUCTIVE SLEEP APNEA ON THE POSTOPERATIVE OUTCOMES AFTER SADI-S: A RETROSPECTIVE MBSAQIP DATABASE ANALYSIS

Samantha Redden *Houston TX*[1], Yeisson Rivero *BROOKLYN NY*[2], Alba Zevallos *Randallstown MD*[3], Sjaak Pouwels *Oberhausen* [4], Adel Abou-Mrad *Saint Jean de la ruelle* [5], Rodolfo Oviedo *Nacogdoches TX*[6]

Baylor College of Medicine[1] -[2] Northwest Hospital[3] Oberhausen Germany[4] Centre Hospitalier Universitaire (CHU)[5] University of Houston[6]

PURPOSE:

Single anastomosis duodenoileostomy with sleeve gastrectomy(SADI-S) is an emerging hypoabsorptive metabolic and bariatric surgery (MBS) procedure. The available literature demonstrates that the procedure is safe and effective, with promising metabolic and bariatric effects. However, there is a gap in knowledge about the impact of Obstructive Sleep Apnea (OSA) on the morbidity and mortality associated with the SADI-S procedure

METHODS

Patients who underwent primary SADI-S within the MBSAQIP database from January 1, 2020, to December 31, 2021, were included to compare 30-day outcomes between OSA versus no-OSA patients

RESULTS

A total of 527 patients were included. 278 and 249 in the no-OSA and OSA groups, respectively. Patients with OSA had a higher rate of type 2 diabetes (37.3 % vs. 25.5%, $p=0.003$), COPD (3.2 % vs. 0.0%, $p=0.003$), GERD (30.9 % vs. 18.3%, $p<0.001$), hypertension (66.7 % vs. 39.6%, $p<0.001$), and hyperlipidemia (34.5% vs. 17.6%, $p<0.001$) compared to patients without OSA. In addition, patients with OSA had more blood transfusions (3.2 % vs 0.4%, $p=0.012$) than patients without OSA. However, there were no statistically significant differences between groups regarding mortality, anastomotic leak, operative time, readmissions, reoperations, and unplanned admissions to ICU

CONCLUSION

Patients who underwent SADI-S with a history of OSA have similar 30-day postoperative outcomes compared to patients without a history of OSA.

These results may imply that SADI-S is a safe and feasible procedure in patients with a history of OSA. Additional studies with more patients and, with a prospective design, are needed to validate this conclusion.

A199

Is Measurement of Preoperative HbA1c Routine Practice in Patients Undergoing Metabolic and Bariatric Surgery?

Safraz Hamid *New Haven CT*[1], Elena Graetz [1], Eric Schneider *New Haven CT*[1], Karen E Gibbs *Bridgeport CT*[1]
Yale School of Medicine[1]

Background:
Metabolic/bariatric surgery (MBS) is well-established for treating obesity and its complications; however, outcomes depend on careful patient selection. Though relationships between preoperative HbA1c levels and MBS outcomes remain unclear, HbA1c values may affect surgical decision-making. As patients may be first diagnosed with prediabetes/diabetes as they pursue MBS, we sought to quantify patterns of preoperative HbA1c availability among patients who underwent MBS procedures.

Materials and Methods:
We identified patients who underwent primary laparoscopic sleeve gastrectomy or laparoscopic/open Roux-en-Y gastric bypass from 2017 through 2021 in the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database. Demographic and clinical characteristics of patients with vs. without preoperative HbA1c values were compared using descriptive methods.

Results:
A total of 802,205 patients met criteria. Overall mean patient age was 43.9 years (SD=11.9); 63.5% of patients were White, 20.5% were Black, and 15.1% were Hispanic; however, neither age nor race were differentially associated with the presence of preoperative HbA1c values. The proportion of patients with HbA1c data was 35.6 % in 2017, 38.5% in 2018, 39.9% in 2019, 48.4% in 2020, and 53.4% in 2021. Across the study period, 54.2% of patients with medically-treated diabetes had reported HbA1c levels vs. 39.6% without.

Conclusion:
The proportion of patients with preoperative HbA1c increased by 50% from 2017-2021; however, in 2021, HbA1c values remained missing for 46.6% of patients. Given the importance of preoperative optimization, further research is warranted to determine if preoperative measurement of HbA1c levels should become standard of care for MBS patients.

A201

Gallstone Ileus after Bariatric Gastric Bypass

RACHEL YOO *READING PA*[1], Aaron Hechtman *Wyomissing PA*[1], Sigrid Williamson *West Reading PA*[1], Charles Wen *Reading PA*[2]
Reading Hospital[1] Drexel University College of Medicine[2]

Small bowel obstruction due to gallstone ileus is a rare complication of bariatric surgery. A 51-year-old female with a history of gastric bypass 18 years prior presented to the emergency department with three days of persistent nausea, vomiting, and distension. CT imaging on admission found a high grade, small bowel obstruction with transition point likely in the right lower quadrant and with pneumobilia. The patient was taken to the operating room for an exploratory laparotomy. A 5.0 x 3.2 x 2.9 cm gallstone was extracted via enterolithotomy with stone extraction. The patient's post-operative course was complicated by a perihepatic abscess. After rapid weight loss status post bariatric surgery, patients have an increased risk of biliary disease – most commonly being symptomatic cholelithiasis and acute cholecystitis. However, gallstone ileus is a rare complication and can be difficult to diagnose, which delays prompt surgical management. Therefore, there must be continued vigilance in recognizing biliary disease including gallstone ileus in the gastric bypass patients and preventing complications of biliary disease within the bariatric surgery population.

A202

Improved Surgical Outcomes of Roux-en-Y Gastric Bypass (RYGB), Sleeve Gastrectomy (SG), and Duodenal Switch (DS) Performed Totally Robotic Versus Laparoscopic

Dennis Smith *Celebration FL*[1], Ciara Lopez *Celebration FL*[2], Sharon Krzyzanowski *Celebration FL*[2], Catherine Santos *Celebration FL*[2], Cynthia Buffington *Celebration FL*[2]
AdventHealth Celebration Hospital[1] AdventHealth[2]

Background. Recent meta-analyses and registry reports find that primary metabolic bariatric surgeries (MBS) performed robotic have similar outcomes to conventional laparoscopy but with longer operative times and higher costs. Most of the robotic surgeries in these reports, however, were robot-assisted rather than totally (fully) robotic. In this study, we examine the surgical outcomes of primary MBS (RYGB, SG, DS) performed totally robotic (TR) vs. laparoscopic (LAP).

Methods. The study is a retrospective analysis of 809 (498 TR, 311 LAP) primary MBS, i.e. RYGB n=351, SG n=393, DS n=65, performed by a single surgeon between 1/20-11/23. Outcomes included patient characteristics (age, weight, BMI, gender, preoperative health status), operative time, length of stay (LOS), complications.

Results. Characteristics of the TR and LAP patients were nearly identical. For the RYGB, operative times were significantly lower with the TR vs. LAP approach (97.6 vs. 115.4 min, respectively, $p<0.0001$); LOS was shorter (1.19 TR vs. 1.39 d LAP, $p<0.0001$); and, complication rates were less (1.7% TR vs. 5.1% Lap). Similar findings occurred with SG performed TR (operative time = 47.4 TR vs. 53.1 min LAP, $p=0.01$; LOS = 1.14 vs. 1.30 d, $p<0.0001$; and complication rates=0.8% vs. 3.2%). LOS was also shorter for the TR vs. LAP DS (1.25 vs. 1.58 d, $p=0.01$), but surgical approach was without effect on operative times and complications.

Conclusions. MBS performed totally robotic vs. LAP is associated with a faster rate of recovery (LOS), and, for the RYGB and SG, fewer complications and a shorter time in surgery.

A203

Revisional Bariatric Surgery Performed Totally Robotic: Advantages over Conventional Laparoscopy

Dennis Smith *Celebration FL*[1], Sharon Krzyzanowski *Celebration FL*[2], Ciara Lopez *Celebration FL*[2], Catherine Santos *Celebration FL*[2], Cynthia Buffington *Celebration FL*[2]
AdventHealth Celebration Hospital[1] AdventHealth[2]

Background.
Over the past several years, there has been an increasing number of robotic-assisted revisional bariatric surgeries (RBS). Outcomes, however, have been conflicting as regards advantage over conventional laparoscopy. In this study, we have examined the outcomes of RBS performed 'totally' robotic (TR) vs. laparoscopic (LAP).

Methods.
The retrospective study included 143 RBS (84 TR, 59 LAP) performed by a single surgeon March 2019-Oct 2023. Most (93%) RBS were index surgery conversions to Roux-en-Y gastric bypass or duodenal switch; and, among these, 26% were band conversions and 74% conversions from a stapled procedure. Principal RBS indications were GERD, insufficient weight loss, and weight recurrence. Outcomes included: a) patient characteristics, b) operative times, 3) 30-day readmissions/reoperations/complications, d) length of stay (LOS), and e) lowest postoperative weight.

Results.
Patient characteristics, operative times, and postoperative weight loss did not differ between TR-RBS and LAP-RBS. However, LOS was significantly ($p=0.01$) shorter for the TR vs. LAP procedures (1.31 days vs. 1.52 days). There were no conversions, leaks nor mortalities with either surgical approach. 30-day readmissions rates for the TR- and LAP-RBS averaged a respective 8.2% and 5.1%. For band conversions, surgical approach had no effect on operative time or complications but there was a TR trend toward lower LOS. For conversions from stapled procedures, the TR vs. LAP approach was associated with significantly ($p=0.006$) lower operative times (122.3 vs. 143.1 min) and shorter LOS (1.34 vs. 1.52 days).

Conclusion.
TR-RBS is safe and associated with shorter LOS and, for stapled conversions, lower operative times.

A204

Title: A mindfulness-based stress and pain management program for people who have had bariatric surgery: Expanding the Patient-centered Educational Armamentarium through Mind-Body Awareness

Sheethal Reddy *Atlanta GA*[1], Victoria Delgado [2], Chelsea Yost *Atlanta GA*[2], Scott Davis *Altanta GA*[2], Maggie Diller *Hillsboro OR*[3], Bavana Ketha [2], Edward Lin *Atlanta GA*[2], Danny Mou *Brookhaven GA*[2], Omobolanle Oyefule *Atlanta GA*[2], Ankit Patel *Decatur GA*[2], Jamil Stetler *Atlanta GA*[2], Elizabeth Hechenbleikner *Atlanta GA*[2]

Emory University School of Medicine[1] Emory University[2] Kaiser Permanente[3]

Pre-operative education is a part of many metabolic and bariatric programs. This education typically revolves around dietary changes, medication adjustments, physical activity and mitigation of common post-operative issues. There is a noticeable absence of similar psychologically based education and follow-up post-operatively. An 8-week pilot program was developed for patients who had bariatric surgery. Course content was drawn partially from Mindfulness-Based Stress Reduction, an evidence-based program developed at UMass Medical School. Additional content on mindful eating and healthy lifestyle was included. Given our culturally diverse population, content was created with consideration for diversity, relevancy, and sensitivity. Participants were self-referred following announcements at monthly support groups or were referred by a bariatric provider. Out of 32 interested people, 12 women (75% African American, mean BMI=39.64 (6.12), age ≤ 49 (n = 8)) participated in the first group. The majority had undergone sleeve gastrectomy (66.67%) within the last 2 years (83%). Half of the group participated in 4 or more sessions. Prior experience with mindfulness was minimal and comparable with past samples of non-meditators. Participants were led in a variety of mindful coping practices for chronic pain and emotion regulation. Audio recordings and handouts supplemented class attendance. At 8 weeks, participants' reported satisfaction was high (80%). Most helpful practice reported was progressive muscle relaxation. Overall, the program was well-received by staff and patients and supports a holistic approach to long-term weight management. We anticipate a doubling of the sample size by the end of 2023 with the conclusion of a second cohort.

A205

Preoperative Weight Loss Predicts More Rapid Return to Metabolic Health in Postoperative MBS Patients

Rebecca Empey *Salt Lake City UT*[1], Hyunkyu Ko *Salt Lake City UT*[1], Paige Martinez *Salt Lake City UT*[1], Rebecca Kohler *Salt Lake City UT*[1], Eric Volckmann *Salt Lake City UT*[1], Jennwood Chen *Salt Lake City UT*[1]
University of Utah Hospital[1]

Background:
Increasing body mass index (BMI) is linearly associated with increasing components of metabolic syndrome (MS) and hence a strong surrogate for poor metabolic health. While the benefits of metabolic bariatric surgery (MBS) to restore metabolic health are well established, the utility of preoperative weight loss is unclear. The purpose of this study was to evaluate the effect of preoperative weight loss on the rate of postoperative metabolic restoration.

Methods:
All patients who underwent primary vertical sleeve gastrectomy (SG) or Roux-en-Y gastric bypass (RNYGB) at a single academic institution, between 2015 and 2022 were retrospectively reviewed. Patients were stratified into groups based on 5% increments of preoperative excess weight loss (EWL). Primary endpoints included BMI and %EWL at 3, 6, 9 and 12 months postoperatively. Metabolic restoration was defined as BMI < 30 and %EWL 50. Outcomes were analyzed using multivariate (Logit) analyses.

Results:
During the study period, 1280 patients underwent primary MBS (368=Sleeve, 912=RNYGB). For each 5% increase in EWL preoperatively, there was a statistically significant increase of achieving a BMI<30 at three (OR=1.72, 95%CI 1.44-2.05, p<0.001), six (OR=1.52, 95%CI 1.32-1.75, p<0.001), nine (OR=1.35, 95%CI 1.13-1.60, p=0.001), and twelve (OR=1.27, 95%CI 1.13-1.44, p<0.001) months postoperatively. Similar results were seen for 50%EWL at each time interval. Patients who underwent RNYGB were more likely to achieve metabolic restoration at each time interval as compared to SG.

Conclusion:
In a dose-dependent manner, greater preoperative weight loss predicts more rapid metabolic restoration in the first year after MBS.

A206

Sleeve Gastrectomy, Bougie or No Bougie follow the End of the vessels, Lights on the Magenstrasse.

A step towards standardization of the technique.

rabih Nemr *Brooklyn NY*[1], Joy Ayemoba [2], Olivia Watman *Brooklyn NY*[2], Katima Allen *Brooklyn NY*[3], George Ferzli *Staten Island NY*[4]
nyp Brooklyn methodist hospital[1] NYP-BMH[2] NYPBMH[3] NYU[4]

INTRODUCTION

Sleeve gastrectomy has become increasingly popular worldwide; Controversy exists regarding the ideal bougie and the technique is not standardized. The "best sleeve" has been described as a trapezoidal shape with a narrowed top by the LES. We propose a surgical technique that respects patient anatomy and the Gastric Canal (Megenstrasse) by following the lesser curvature vessels without the guidance of a bougie.

METHODS & PROCEDURE

TRobotic Sleeve Gastrectomy was performed with resection starting approximately 3 cm proximal to the pylorus. The stomach is stapled along the end of the lesser curvature vessels up to the Angle of His using buttressed staples. Extreme care is taken to respect the angulation of the incisura and the resection is completed lateral to the GE junction fat pad.
retrospective review data of a single surgeon performing robotic Sleeve Gastrectomy using this technique between Jan 2021 to March 2023. 221 patients (176 women and 45 men) were analyzed. Mean age was 40 years. Mean preoperative weight was 121.44 kg. Mean preoperative BMI was 43.9 (. Mean operative time 90 minutes.The average length of stay was 1.4 days. Weight loss was on trend at 6 months and one year post-operatively utilizing comparison of BMI reduction through aggregated programmatic data of participating MBSAQIP centers.

CONCLUSION

Standardizing sleeve gastrectomy by following the ‘‘end of the vessel’’ technique offers a standardization of the surgical technique following a patient-centric rather than a bougie-centric approach . It is safe and produces similar weight loss compared to published data.

A207

Development of Programmatic Recommendations for Pre- and Post-Metabolic and Bariatric Surgery Cannabis
Use in a Newly Legalized State

Jennifer Lanners *Rochester MN*[1], Karen Grothe *Rochester MN*[1], Matthew Clark *Rochester MN*[1], Afton Koball *Rochester MN*[1], Sarah Kalsy *Rochester MN*[1], Meera Shah *Rochester MN*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic[1]

Cannabis use has increased amongst patients seeking metabolic and bariatric surgery (MBS). Unfortunately, there is a lack of empirical data regarding the impact of cannabis use pre-and post-operatively on long-term outcomes following MBS. Given that the State of Minnesota legalized recreational cannabis use in August 2023 and in the absence of national guidelines for patients seeking MBS, our multidisplinary team decided to establish semi-standardized recommendations for cannabis use pre- and post-operatively for patients seeking MBS. These recommendations were guided by multidisciplinary team discussion and review of 1) the existing relavant literature (including impact on perioperative complications, eating behaviors, weight outcomes, and addictive behaviors), 2) ASMBS pre-operative optimization guidelines, 3) American College of Surgeons guidelines for cannabis use, and 4) consultation with cannabis subject matter experts within the team. The primary goal of the development of these recommendations was to balance patient access to MBS with medical, surgical, nutritional, and psychological risk factors related to cannabis use and to inform optimal care pathways for patients currently using medical and recreational cannabis.

This poster will summarize the empirical literature in the areas outlined above and describe in detail our program's current recommendations for clinical practice related to cannabis use prior to and following MBS. Information presented in the poster will provide a model of care regarding medical and recreational cannabis use and aid team-based clinical decision making as we await further empirical findings and national guidelines regarding cannabis use to enhance MBS clinical care.

A175

Antiemetics and QTc prolongation in Bariatric surgery patients

Tarek Hassab *Baltimore MD*[1], Stephen Kavic [1], Mark Kligman [1]
University of Maryland Medical Center[1]

Background:
Following bariatric surgery, many patients require anti-emetics which can cause QTc prolongation, and potentially ventricular arrhythmia. Our aim was to evaluate the prevalence of prolonged QTc intervals in post-operative bariatric patients taking anti-emetics.

Methods:
We conducted a retrospective analysis of patients that underwent bariatric surgery at University of Maryland Medical Center over a one-month interval. QTc interval was recorded; an interval >440ms in men >460ms in women was considered prolonged. The data was collated in an Excel database and analyzed using descriptive statistics.

Results:
A total of 29 patients were included in our study with a median age of 41.3 ± 13.7 years; 86% were female. The median BMI was 48.3±10.9 kg/m2. Laparoscopic sleeve gastrectomy was done on 14 patients, while 15 patients had a Laparoscopic gastric bypass. All patients had pre and postoperative EKGs. All patients received anti-emetics postoperatively. Overall, 12/29 (41.4%) patients had no QTc prolongation pre or postoperatively, 6/29 (20.7%) had preoperative prolongation but normal QTc interval postoperatively, and 6/29 (20.7%) had QTc prolongation pre and postoperatively. 17.2% had new onset QTc prolongation postoperatively. No patients in this group had cardiac arrhythmias postoperatively.

Conclusions:
While QTc prolonging anti-emetics are commonly used following bariatric surgery, the associated risks are not often appreciated. Nearly 40 percent of patients have prolonged QTc postoperatively, almost half of which are new onset. The new onset QTc prolongation may be attributable to anti-emetics. In the event of postoperative ventricular arrhythmia, termination of these medications must be considered to prevent fatal arrhythmia.

A208

High rates of Vitamin B1 and C deficiencies prior to sleeve gastrectomy

Hugo Bonatti *Hagerstown MD*[1], Cheryl Frushour *Hagerstown MD*[1], Mohammad Jamal *Hagerstown MD*[1]
Meritus[1]

Background:
Vitamin C (VC) and Thiamin (T) deficiency are rare conditions in industrialized countries. Patients suffering from morbid obesity may develop Vitamin deficiencies due to poor dietary choices. VC&T deficiency may lead to severe complications following sleeve gastrectomy (SLG).

Patients and methods:
Patients being evaluated for a SLG underwent testing for VC&T levels; in addition, values of zinc, TSH, prealbumin, HbA1c, cholesterol and triglycerides were determined. Thiamine levels 8-12 were considered low, 6-8 deficient and <6 critical; Vitamin C levels of 0.3-0.4 were considered low, 0.1-0.2 deficient and <0.1 critical.

Results:
Seventy-six SLG candidates (18m/58f) median aged 42.4 (range 21.9-65.5) years with pre- or peri-operative VC&T testing (2021 to 2023) were included. BMI at testing was median 44.8 (range 36.3-68.1) kg/m2. Only 37% of patient had normal T levels, 39% had low levels, 12% were deficient and 12% had critically low levels. Fifty-five % of patients had normal VC levels, 25% had low levels, 18% were deficient and 3% had critically levels. 31 patients had combined VC&T deficiencies. Patients with low Vitamin levels or deficiencies were started on high dose thiamin and/or ascorbic acid. Zinc levels were normal in 96% and TSH levels in 95%. HbA1c levels were >5.9 in 27%; 46% of patients had hyperlipidemia. Fifty-five patients underwent robotic SLG (51 had VC&T level testing prior and four within few days after SLG).

Conclusions:
The high rates of VC&T deficiency in candidates for SLG are concerning and routine testing for VC&T in these individuals should be considered.

A209

Internal Hernia Following Robotic SADI-S

Rutvi Patel *San Antonio TX*[1], Qi Yan [1], Richard Peterson *San Antonio TX*[1], Jason Kempenich *San Antonio TX*[1]
UT Health Science Center San Antonio[1]

Background:

Due to the technically challenging nature and risk of internal herniation associated with Roux-en-Y Gastric Bypass (RNYGB), procedures like Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy (SADI-S) are gaining momentum. SADI-S employs a single anastomosis, and utilizes pyloric preservation to alleviate bile reflux which is a common drawback of other simpler alternatives to RNYGB such as One Anastomosis Gastric Bypass (OAGB). In the literature investigating efficacy and safety outcomes of SADI-S, reports of internal hernia are sparse and the risk is considered low.

Case Presentation:

32-year-old male with initial BMI of 56 kg/m2, history of one-step robotic SADI-S, presented 3 years post-operatively with new-onset post-prandial pain, nausea and PO intolerance. His initial work-up for biliary etiology/obstruction/internal herniation was unremarkable radiologically. He ultimately underwent exploratory laparoscopy and was noted to have a 180-degree twisting of his anastomosis and internal herniation of small bowel loops in the iatrogenic window between the ileal loop of the anastomosis and root of the mesentery. The bowel was reduced, and mesenteric window closed with running permanent suture. Patient's presenting symptoms resolved post-operatively.

Conclusions:

Although there is sufficient emerging data on SADI-S being comparable to RNYGB for weight loss and metabolic outcomes, long-term outcomes data regarding secondary complications and reasons for reoperation is sparse due to SADI-S being a relatively newer procedure. We describe a case of internal herniation following SADI-S, and its surgical treatment.

A211

Internal Hernia After Roux-en-Y Gastric Bypass… But Where?

Michelle Nessen *New Orleans LA*[1], Abdallah Attia *New Orleans LA*[1], Shauna Levy *New Orleans LA*[1], John Baker *New Orleans LA*[1]
Tulane University[1]

This is a case of internal hernia in a patient with a remote history of a laparoscopic antecolic antegastric roux-en-y gastric bypass. The patient is a 55-year-old female who presented to the emergency room with 1 day of abdominal pain, nausea and emesis. Workup including CT was notable for mesenteric swirling and dilation of the proximal bowel, gastric remnant and duodenum. There were no signs or symptoms of bowel ischemia. She was brought to the OR for diagnostic laparoscopy where an internal hernia was found containing a significant portion of the common channel and JJ. The location of the hernia was found between the proximal alimentary limb and gastric remnant. Running non-absorbable suture was used to close this space to prevent further herniation. She was discharged post-operative day one with uneventful course. The location of this hernia is distinct from the commonly referred to Petersen's space, which is described as between the transverse mesocolon and roux limb. It is critical to be familiar with all possible iterations of anatomy, and to obtain as much history about prior operations, during explorations in patients with history of bariatric surgery.

A217

Sleeve Gastrectomy as a Curative Operation to Treat Cascade Stomach in Patients with Obesity

Ajmal Baray *Chantilly VA*[1], Ahmed Qizilbash *Annandale VA*[1], Darren Glass *Salem VA*[2]
VCOM - Virginia[1] LewisGale Physicians / VCOM[2]

Cascade stomach is an uncommon anatomical finding, consisting of a displacement of the fundus dorsally, creating a gravity-dependent secondary stomach pocket. Exact etiologies are unknown, but organic, congenital, and extrinsic causes have been theorized. Cascade stomach causes primarily nonspecific upper GI symptoms initially diagnosed as GERD, gastritis, and gastroparesis.

Our patient is a 58-year-old female with class 1 obesity who suffered with a 20-year history of progressive upper GI symptoms, including bloating, belching, and epigastric pain radiating into the chest. Symptoms worsened with eating and forward flexion. The patient developed an abdominal massage routine she would employ to improve her symptoms. An EGD report initially described a large paraoesophageal hernia with most of the stomach in the chest. However, in a follow-up UGI study, a classic cup and spill deformity was then found, consistent with the diagnosis of cascade stomach. We proceeded with a robotic sleeve gastrectomy operation and appreciated a sizable fibrous adhesive band and increased angulation at the fundus. Complete resolution of her symptoms was evident on follow-up at 2 weeks along with approximately 50-pound weight loss at the 1-year follow-up.

This case highlights the importance of considering cascade stomach in the differential diagnosis for upper GI symptoms. Once more common causes, such as GERD, medication effects, ulcer, are ruled out, an upper GI study is likely the best test to diagnose cascade stomach. This case also demonstrates the potential role of sleeve gastrectomy as a curative operation for this primary anatomical abnormality in patients with comorbid obesity.

A219

Risk factors for postoperative leaks after revisional Roux-en-Y gastric bypass: an analysis of the MBSAQIP database

Warda Alam *Jackson MI*[1], Hassan Nasser *Jackson MI*[2]
Henry Ford Health[1] Henry Ford Health Jackson[2]

Introduction:
With the increasing number of revisional Roux-en-Y gastric bypass (RYGB) procedures performed, there is a need to better understand its postoperative complication profile, especially anastomotic leaks. The aim of this study is to evaluate the risk factors associated with leaks after revisional RYGB using the MBSAQIP database.

Methods:
The 2020-2021 MBSAQIP database was queried for all revisional RYGB cases. Two cohorts were identified based on the occurrence of a leak. Univariate and multivariate stepwise logistic regression were used to identify demographic variables, co-morbidities, and operative factors associated with the occurrence of a postoperative leak.

Results:
A total of 21,352 revisional RYGB were identified with 122 cases (0.6%) developed a leak. Patients in the leak group were of comparable age, race, sex, and body mass index. Most conversions were from a sleeve gastrectomy (71.7%) or an adjustable gastric band (22.1%). On univariate analysis, history of venous thromboembolic events (VTEs), hyperlipidemia, sleep apnea, intraoperative drain placement, and conversion to open were higher in the leak group. After adjustment for significant covariates, preoperative history of VTEs (10.7% vs 3.4%; $p<0.01$; AOR 3.43), chronic obstructive pulmonary disease (3.3% vs 1.1%; $p=0.05$; AOR 3.03), hyperlipidemia (28.7% vs 19.6%; $p=0.01$; AOR 1.69), and obstructive sleep apnea (34.4% vs 26.3%; $p=0.05$; AOR 1.51) were associated with the occurrence of a leak.

Conclusion:
Despite its relatively low rate, leaks after revisional RYGB are associated with several preoperative comorbidities. Further prospective studies are required to validate these findings.

A222

Prospective Comparison of Mental Planning Ability in Sleeve Gastrectomy Patients and Non-Operative Controls

Juan Cobar *Hartford CT*[1], Dale Bond *Hartford CT*[1], John Gunstad *Kent OH*[2], Isabel Michalak *Hartford CT*[3], Amir Ebadinejad *Hartford CT*[1], Yin Wu [1], Darren Tishler *Glastonbury CT*[1], Michael Stevens *Hartford CT*[3], Godfrey Pearlson *Hartford CT*[3], Pavlos Papasavas *Hartford CT*[1]
Hartford Hospital[1] Kent State University[2] Olin Research Center[3]

Background:
Patients pursuing metabolic and bariatric surgery (MBS) often show executive function deficits. While previous research shows that executive function improves after MBS, few studies have used standardized tests to directly assess planning/problem-solving ability which may be important for adherence to postoperative behavioral recommendations.

Objectives:
Compare 1-year postoperative changes in planning/problem-solving ability among sleeve gastrectomy (SG) patients and non-operative controls.

Methods:
Fifty-four SG patients and eleven non-operative controls with obesity completed the Tower of London task (TOL) at pre- and 1-year postoperatively. The TOL presents computer-generated images of balls and asks participants to think ahead about how to arrange the balls in the fewest moves possible to achieve a specific goal. ANCOVA compared postoperative changes in TOL percent correct responses (%CR) and mean response time (RT), controlling for baseline performance.

Results:
The SG and control groups were similar in age (42.3±8.2 vs. 43.0+9.1 years), sex (81.5% vs. 90.9% females), and BMI (45.4±7.1 vs. 42.9±5.0 kg/m^2). SG had greater 1-year percent weight loss compared to controls (23.0 %±9.7 vs. 3.9%±7.8). TOL results showed a significant difference in change in %CR from pre- (SG: 74.5%±21.7 vs. Controls: 82.7%±11.4, p=0.36) to 1-year postoperatively, that favored SG (SG: +3.89±21.7% vs. Controls: -13.87±24.59%, p=.03). The groups did not differ in RT.

Conclusion:
The contrasting pattern of change in planning/problem-solving ability between SG patients and nonoperative controls suggests that SG may help prevent deterioration in this area of executive functioning. Future studies should assess the role of planning/problem-solving ability in postoperative behavioral compliance and weight outcomes.

A226

Robotic Heller Myotomy With Roux-en-Y Gastric Bypass

Devan Lenhart *New Orleans LA*[1], Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[1], Vance Albaugh *Baton Rouge LA*[1], Philip Schauer *Baton Rouge LA*[1], Michael Cook *New Orleans LA*[2]

Pennington / LSU-HSC[1] LSU-HSC[2]

A 38-year-old female with a BMI of 41, a past medical history of diabetes, obstructive sleep apnea, Class 3 obesity as well as a past surgical history of cholecystectomy, hysterectomy, tubal ligation presented with dysphagia to solids and daily GERD-like symptoms. The patient underwent a robotic Heller Myotomy with Roux-en-Y gastric bypass. The patient did not have any significant post-operative complications and had resolution of her dysphagia and GERD-like symptoms post-operative day 75.

A228

Does Hospital Volume Matter for Bariatric Surgery Outcomes?

John Morton *MADISON CT*[1], Miranda Moore *New Haven CT*[2], Lee Ying *New Haven CT*[2], Eric Schneider *New Haven CT*[2], Eric Schneider *New Haven CT*[2]
Yale School of Medicine[1] Yale[2]

Introduction

Bariatric surgery volume requirements from historic data are a condition for accreditation. The aim of this study is to determine the volume outcome relationship for contemporary bariatric surgery.

Methods

The Nationwide Readmissions Database from 2018-2020 was utilized to capture laparoscopic sleeve gastrectomy (SG), gastric bypass (GB), and duodenal switch (DS) procedures via ICD-10/DRG codes for 266,743 procedures from 1947 hospitals. The hospital volume by procedure was divided into low, medium and high volume. Hospital volume was risk-adjusted by age, gender, and Elixhauser Index and correlated to the outcomes of Patient Safety Indicator (PSI) 90 (post-operative complications) and mortality.

Results

The algorithm yielded results for SG: n=184,863 procedures, range (1-876) with median values for low (13), medium (64) and high volume (174). For GB, n=77,269 procedures, range (1-443) with median values for low (6), medium (24) and high volume (68). For DS, n=4,611 procedures, range (1-194) with median values for low (2), medium (3) and high volume (9). In correlating hospital volume to PSI 90/mortality after risk adjustment, the following results are noted with high volume as reference value (OR=1).
Sleeve Gastrectomy: low volume (OR 1.17, p=0.433) medium volume (OR 1.56, p<0.001)
Gastric Bypass: low volume (OR 1.30, p=0.228) medium volume (OR 1.06, p=0.583)
Duodenal Switch: low volume (OR 2.6, p=0.2) medium volume (OR 2.16, p=0.035)

Conclusion

In this nationally representative database which allows for hospital volume identification, there was a significant reduction in adverse effects for high volume hospitals performing both sleeve gastrectomy and duodenal switch.

A230

Comparison of Post-operative Bleeding in Laparoscopic versus Robotic Sleeve Gastrectomy

Megan Jenkins *New York NY*[1], Helena Sergent [2], Akash Gujral *New York NY*[3], Chin-Yin Schroder [3]

NYU Langone Health[1] University of Southampton School of Medi[2] NYU Grossman School of Medicine[3]

Introduction:

Staple line buttressing (SLB) in laparoscopic sleeve gastrectomy (LSG) has previously been shown to decrease the risk of post-operative bleeding from the gastric staple line. In robotic sleeve gastrectomy (RSG), SLB is often not used. With the increasing popularity of robotic surgery in bariatrics, this study seeks to compare the risk of bleeding complications between RSG and LSG.

Methods:

We retrospectively reviewed electronic medical records of 927 patients at a single academic center between June 2021 and August 2023. 575 patients underwent RSG without SLB and 371 patients underwent LSG with SLB. We looked at the 30-day post-operative complications focusing on transfusion requirements and re-operation for bleeding as indicators of a bleeding complication.

Results:

The average BMI of the cohort was 43.05 kg/m2 (RSG 43, LSG 43.12, p=0.01), average age 39.4 (RSG 39.3, LSG 39.4, p= 0.88) and 74% were females (RSG 75%, LSG 69.8%). 40% of patients were ASA class II (RSG 40%, LSG 38.5%) and 59% were ASA class III (RSG 57.6%, LSG 59.3%).

No patients required a reoperation for bleeding. No RSG patients required a transfusion. 2 patients required transfusion in LSG cohort. Both of these complications resulted in an extended length of stay of 6.1 and 1.9 days. One patient also suffered a staple line leak.

Results:

This study demonstrates there is no increased risk of bleeding complications with RSG without staple line buttressing compared to LSG with staple line buttressing.

A231

Comparison of Risks of Laparoscopic versus Robotic Sleeve Gastrectomy

Megan Jenkins *New York NY*[1], Helena Sergent [2], Akash Gujral *New York NY*[3], Chin-Yin Schroder [3]
NYU Langone Health[1] University of Southampton School of Medi[2] NYU Grossman School of Medicine[3]

Introduction:

As robotic surgery is increasing in popularity in bariatric surgery, this study seeks to determine if there is a difference in complications between Laparoscopic Sleeve Gastrectomy (LSG) versus Robotic Sleeve Gastrectomy (RSG).

Methods:

We retrospectively reviewed electronic medical records of 927 patients at a single urban academic center between June 2021 and August 2023. 575 patients underwent RSG and 352 underwent LSG.

Results:

The average BMI of the cohort was 43kg/m2 (RSG 43, LSG 42.9, p=0.806), average age 39.8 (RSG 39.8, LSG 40.7, p= 0.084) and 74% were females (RSG 77%, LSG 70%). Additionally, 40% of the patients were ASA class II (RSG 41%, LSG 39%) and 58% were ASA class III (RSG 59%, LSG 59%). The median, mean length of stay for RSG was 1.21, 1.4 days versus 1.17, 1.3 days for LSG (p=0.0084) and the median, mean operative time (minutes) was 73, 76.4 for RSG and 66, 74.6 for LSG (p=0.0021).

32 patients (3.45%) had a complication (RSG 3.48%, LSG 3.41%, p=0.955). The most common complications were PO intolerance (n=7; RSG 0.87%, LSG 0.54%), nausea/vomiting and nutritional deficiencies (n=6, RSG 0.52%, LSG 0.81%), vein thrombosis (n=4, RSG 0.35%, LSG 0.54%); and urinary tract infection (n=4, RSG 0.35%, LSG 0.54%).

Conclusions:

The study confirms that RSG is as safe as LSG, with comparable post-operative risks.

A233

Heart Failure Patients Undergoing Metabolic Surgery Reduce Oral Diuretic Use, Improve Body Weight, and Diabetes Control: A Retrospective Study

Michael Kachmar *Baton Rouge LA*[1], Florina Corpodean *New Orleans LA*[2], Courtney LaChute *Baton Rouge LA*[3], Iryna Popiv *Baton Rouge LA*[2], Michael Cook *New Orleans LA*[3], Vance Albaugh *Baton Rouge LA*[2], Ali Aminian *Cleveland OH*[4], Denzil Moraes *Baton Rouge LA*[5], W.H. Wilson Tang *Cleveland OH*[4], Philip Schauer *Baton Rouge LA*[2]
Pennington Biomedical Research Center / LSU-HSC[1] Pennington / LSU-HSC[2] LSU-HSC[3] Cleveland Clinic[4] Our Lady of the Lake[5]

INTRODUCTION:
Outcomes of heart failure (HF) patients undergoing metabolic surgery (MS) are incompletely characterized. We aimed to describe cardiac and metabolic effects of MS in HF patients. We hypothesized patients with CHF would experience both improved metabolic and HF profiles.

METHODS:
A review of 2342 hospital records of patients undergoing MS (2017-2023) identified 63 patients with a medical history of HF. Preoperative characteristics, 30-day outcomes, and up to 2-year biometric & metabolic outcomes, medication usage, and emergency department utilization were examined. Wilcoxon signed-rank tests were used compare pre-op and post-op values, as well as generalized estimating equations (GEEs) to model longitudinal outcomes.

RESULTS:
Most patients (88.3%) had heart failure with preserved ejection fraction (HFpEF) versus 8.3% with reduced ejection fraction (HFrEF) (Table 1). MS consisted of sleeve gastrectomy (n=44), Roux-en-Y gastric bypass (n=17), and duodenal switch (n=2). At 24-months after MS, the mean BMI reduction was 14.8 ($p<0.001$) (Figure 1A); mean total body weight loss (%TBWL) was 29.2% ($p<0.001$) (Figure 1.a); and significant reductions in HbA1C were appreciated ($p=0.02$) (Figure 1B). Diuretic use was significantly lower at 24-months after MS ($p=0.003$) (Figure 1C). Emergency visits for cardiac-complaints ($p=0.2$) and IV-diuresis ($p=0.07$) trended lower at 1-year post-op (Figure 1D) but were not significant.

CONCLUSION(S):
In carefully selected HF patients, metabolic surgery appears to provide significant reduction in oral diuretic dependency and metabolic improvements with trends toward lower rates of ED-utilization. Larger prospective studies investigating symptomatic improvement in patients with HFpEF and HFrEF are needed.

A235

Comparing BMI and Body Fat Percentage as Indicators of Persistent Obesity

Jason Samuels *Nashville TN*[1], Lei Wang *Nashville TN*[2], Wayne English *Nashville TN*[1], Vance Albaugh *Baton Rouge LA*[3], Xinmeng Zhang *Nashville TN*[1], Charles Flynn *Nashville TN*[1], Danxia Yu *Nashville TN*[1]

Vanderbilt University Medical Center[1] Vanderbilt University[2] Pennington Biomedical Research Center[3]

Introduction:

Body Mass Index (BMI) as a measure of overall health faces ongoing scrutiny, without established alternative measures. This study investigated whether defining obesity based on body fat percentage (BF%) could offer a more comprehensive identification of persistent obesity post-bariatric surgery.

Methods:

This retrospective, single-center analysis focused on patients undergoing Laparoscopic Roux-en-Y gastric bypass or sleeve gastrectomy. Bioimpedance analysis (BIA) data, encompassing BF%, fat mass (FM), and fat-free mass (FFM), were collected pre- and post-operatively (baseline to 1-4 years). Inclusion criteria: age ≥ 20 years, ≥ 1 BIA collection ≥1 year post-operatively. Exclusion criteria: revisional bariatric surgery. Persistent obesity was defined as BMI ≥30 kg/m2 or BF% ≥30% for women or ≥25% for men.

Results:

Of the 7471 and 937 patients meeting inclusion criteria, 63% exhibited persistent obesity based on BMI at year 1 post-surgery, while 92% showed persistent obesity by BF%. This continued at years 2 and 3, with 59% and 65% experiencing persistent obesity based on BMI, respectively, compared to 90% and 94% using BF% (Table 1). FFM gradually declined over the entire follow-up period, while FM reached nadir at 20 months post-surgery, with a subsequent increase correlating with weight and BF% recurrence (Figure 1). Women experienced a greater rate of decline (12.5%) in FFM than men (3.7%) in the first 12 months (p<0.0001, Figure 1).

Conclusion:

BMI underestimates the occurrence of obesity compared to body fat percentage. Weight regain following bariatric surgery primarily correlates with an increase in fat mass.

A236

Data-Driven Bariatric Service Lines: The Model for a Cost-effective, Value-based and Sustainable Healthcare

Philippe Quilici *Burbank CA*[1], Alexander Tovar *Burbank CA*[1]
Providence Saint Joseph Medical Center[1]

An innovative, data-driven, cost-effective clinical model was deployed to manage our surgical bariatric service line. This foundational change was designed to assess if our surgical providers and staff could safely and effectively migrate from our current evidence-based service line model to a purely value-based and data-driven service.

Methods:
An extensive analysis of ten years of historical and real-time clinical bariatric data using two outcome engines [TransMed CS & Providence VOA] was used to perform a "per-resource breakdown" of each in-hospital care episode and to re-design them into dynamic, real-time, data-driven care-components delivery of care protocols. Once implemented, cost and outcome data were compared and validated across our healthcare system during two different time frames [T1 pre-Covid,T2 post-Covid]. Our measurements were only interrupted during the height of the COVID-19 pandemic as we experienced significant disruption of our supply chain and clinical staff.

Results:
For T1, upon implementation, our Cost Per Case [CPC] dropped 37% from our system average [SA]. At 24 months, CPC was maintained at 36% below SA. For T2, CPC was 44% below the system average over 12 months [2023 fiscal year], resulting in impressive cost savings. Other standard clinical outcome indices showed no deterioration, while our average LOS [Length of Stay] increased to 1.53 vs a SA of 1.35.

Conclusion:
These analytics demonstrate that data-driven clinical protocols can dramatically reduce surgical performance costs in this service line and lead to a value-based, sustainable healthcare model. In contrast, some standard outcome data analytics benchmarks may need reassessment.

A239

Food Insecurity Among Bariatric Surgery Patients

Karenia Landa *Durham NC*[1], Alexander Sizemore *Durham NC*[2], Alex Bartholomew *Chapel Hill NC*[3], Alex Michaels *Durham NC*[1], Philip Fong *Durham NC*[1], Jacob Greenberg *Durham NC*[1], Deepak Palakshappa *Winston Salem NC*[4], Keri Seymour *Durham NC*[1]
Duke Regional Hospital[1] Duke Medical School[2] Duke University Hospital[3] Wake Forest Hospital[4]

Background: Food insecurity (FI) can be defined as a lack of consistent access to enough food for an active and healthy life. FI affects roughly 10% of the US population and 17% of the Durham County population. The effects of FI in the bariatric surgery population have not been well studied.

Methods: A retrospective review of patients that underwent bariatric surgery between 2017-2019 at a single institution was performed. A validated, six question U.S Adult Food Security Survey was completed by each patient during their first visit. Scores were graded based on degree of food security (FS): 0-2 high/marginal, 3-5 low and 6-10 very low. Outcomes at 6- and 12-months were measured. T test were used to compare patient characteristics. Patients with FS scores >3 were grouped in cohort.

Results: 390 patients were included. 13% (52) of patients reported low to very low FS scores. Food insecurity was more commonly seen in females (76% vs 90%, p.02) (Table 1). The FI cohort had comparable pre-operative BMI (44.3 vs 44.2, p=0.2), fat mass (139 vs. 139.5 lbs, p>0.5), pre-operative weight (270 vs 264, p>0.5) and A1c (5.8 vs 5.8, p>0.5). These outcomes were similar at the 6- and 12-month post-operative visit in both groups (Table 1).

Conclusion: Though food insecurity can pose a challenge for patients, those with FI see the same benefits following bariatric surgery through 12 months. The impact of FI on longer term bariatric outcomes should be further studied.

A240

Unveiling Financial Impact: How Payor Status Shapes Postoperative Resource Utilization in Metabolic Surgery

Florina Corpodean *New Orleans LA*, Michael Kachmar *Baton Rouge LA*[1], Michael Cook *New Orleans LA*[2], Philip Schauer *Baton Rouge LA*[1], Vance Albaugh *Baton Rouge LA*[1]
Pennington / LSU-HSC[1] LSU-HSC[2]

Introduction*:*

Postoperative emergency department (ED) utilization and readmissions are key quality outcome measures for Metabolic & Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) centers. Given rising costs, limiting postoperative resource utilization is paramount. The aim of this study is to investigate the effects of insurance payor status on post-operative resource utilization after metabolic surgery (MS).

Methods*:*

Utilizing data from our institutional MBSAQIP (2020-2023), MS cases were identified and categorized based on primary payor. Analysis of 30-day readmissions, reinterventions, and reoperations was completed based on case characteristics and stratified by payor status to examine intergroup differences.

Results*:*

Medicaid beneficiaries were overall younger (39.9 years vs. 46.5 years) than patients with private insurance (PI) and were more likely to be female. Body mass index (BMI) was significantly higher for Medicaid compared to PI or Medicare (48.3 vs. 46.5 vs. 45.3). Medicaid recipients had significantly higher rates of ED utilization ($p<0.005$) compared to PI and self-pay and higher rates of visits for IV hydration ($p=0.007$). Regardless, Medicaid status was not associated with increased composite complications, composite infection, length of stay >5 days, or readmission. Medicare beneficiaries had more ED visits compared to self-pay ($p<0.005$) and higher rates of 30-day readmissions and reoperations compared to PI ($p<0.005$).

Discussion*:*

Postoperative ED utilization and readmission/reoperation rates were notably higher in publicly insured patients compared to those with PI or self-pay. This highlights the importance of implementing targeted quality improvement measures to reduce avoidable ED visits within this population.

A220

Impact of type of bariatric surgery on micronutrient and hemoglobin values 12 months after the procedure.

Karla Carolina Flores Maciel *Ocotlán* [1], Luis Osvaldo Suárez Carreón *GUADALAJARA* [2], Gabriela Zamudio Martínez *ZAPOPAN* [3]
I do not have any[1] Do not have any[2] do not have[3]

Background:
Nutritional deficiencies are common following bariatric surgery, some studies have revealed that nutritional deficiencies are more frequent after Roux-en-Y gastric bypass (RYGB) than in patients operated of laparoscopic gastric sleeve (LGS); however others have found no difference and more studies are needed.

Objetives:
Report the impact of the type of bariatric surgery on micronutrient and hemoglobin values 12 months after the procedure.

Setting:
Instituto Mexicano del Seguro Social. Hospital de Especialidades del Centro Médico Nacional de Occidente (National Western Medical Center Specialty Hospital)

Methods:
Is a retrospective cohort study, including 100 patients operated from 2016 to 2022. The anthropometric measurements, the results of pre-surgical laboratory tests and the follow-up at 1, 3, 6 and 12 months after surgery were taken from clinical records. Statistical analysis was performed with SPSS version 29.0.

Results:
The impact of the type of bariatric procedure was equal in terms of micronutrient deficiencies between patients operated of RYGB and patients operated of LGS. Vitamin D3 levels were lower ($p<0.05$) in post-surgical of RYGB patients than of LGS (21.73 ng/ml (±8.49) vs 26.36 ng/ml (±10.74). Also, vitamin B12 levels at month 6, were lower with BGLYR (466.61 pg/ml (±465.29) vs 654.52 pg/ml (±796.93), $p <0.05$).

Conclusions:
We found that the type of bariatric surgery does not impact on micronutrient deficiencies, but it does on vitamin D3 levels and vitamin B12 being lower with RYGB. It is probably necessary to continue evaluating deficiencies over a longer period of time to determine if these differences are significant.

A242

Preoperative Physical Activity Status and Postoperative Outcomes in Adolescent Bariatric Surgery Patients

Colleen Tewksbury [1], Larissa Mahoney *Philadelphia PA*[1], Sebastian Leon *Philadelphia PA*[1], Christine Giovinazzo *Philadelphia PA*[2], Joy Collins [2], Noel Williams [1], Kristoffel Dumon [1], Elizabeth Prout *Philadelphia PA*[2]
University of Pennsylvania[1] Children's Hospital of Philadelphia[2]

Background:
Preoperative exercise has been identified as a potential correlate of postoperative outcomes in adolescent bariatric surgery. However, the majority of studies have focused on self-reported activity levels. The aim of this study is to assess the relationship between preoperative activity status and postoperative outcomes among adolescents undergoing bariatric surgery.

Methods:
Exercise science assessment data, demographics, and postoperative clinical outcomes were collected retrospectively from the electronic medical records of adolescent patients undergoing bariatric surgery at an academic medical center between 2014 and 2023. The relationship between baseline exercise variables and outcomes of interest using parametric tests.

Results:
The participants (n=72) were primarily female (73.6%), White (45.8%), and non-Hispanic/Latino (86.1%) with a mean age of 16.9$\pm$1.0 years and 52.8% private payor. All underwent a sleeve gastrectomy, with 1 experiencing a 30-day readmission and 1 observation both for abdominal pain and nausea. No reoperations nor mortalities were observed. Preoperative Rate of Perceived Exertion (RPE) difference (Mid-Post 6-minute-walk test) was related to 1-month postoperative weight loss (-22.3kg$\pm$ 10.5, $p<0.001$) but unrelated to changes in systolic blood pressure. Patient reported minutes/week exercise preoperatively was associated with larger weight losses (161.6 min + 120.6, $p<0.001$) and reductions in systolic blood pressure (<0.001).

Conclusion:
Adolescents observed experienced minimal complications after bariatric surgery. Preoperative RPE difference was associated with larger initial weight losses. Additional research is needed to assess longer term weight loss and cardiometabolic risk factors.

A243

Consecutive 4-Month Swallowable Balloon Weight Loss Surpasses Results of a Single 12-Month Endoscopic Balloon and Approaches Weight Loss Surgery Results

Roberta Ienca *Roma* [1], Adelardo Caballero *Madrid* [2], Christopher Oyola *Madrid* [3], Laura Garcia Ayuso *Madrid* [3], Alberto Pagan *Palma de Mallorca* [4], Michele Rosa *MODICA* [5], Giovanni Quartararo *Florence* [6], Girish Juneja *Dubai* [7], Sébastien Kolmer *Mulhouse* [8], Mohammed Al Kuwari *Doha* [9], Andrea Formiga *Milano* [10], Alessandra Freda *Milan* [10], Rita Schiano di Cola *Castelvolturno, Caserta* [11], Cristiano Giardiello *Napoli* [11]

Nuova Villa Claudia Clinic[1] Instituto de Obesidad, Madrid[2] Clinica Bruselas, Madrid[3] CINIB, Balearic Islands[4] MICROS, Modica[5] Villa Donatello, Firenze[6] Cocoona Center, Dubai[7] Le Réseau Pondera, Mulhouse[8] The Masters Medical Clinic, Doha[9] CIBO, Milano[10] Pineta Grande Hospital, Caserta[11]

Background

Twelve-month endoscopic intragastric balloons achieve 15.4% (Wiggins et al.) and 16.2% (Jamal et al.) TBWL at 12-months. Consecutive treatment with the Allurion Gastric Balloon (AGB) may be an effective alternative.

Method

Data were collected retrospectively from 11 international obesity centers where patients underwent consecutive AGB placements. On average, 4 months after passage of the first AGB, a second AGB was placed. Data included weight-loss (WL)(kg), total body weight loss (TBWL), and adverse events.

Results

121 (38M/83F) patients were identified who underwent consecutive AGB treatment (March 2017-November 2023). Starting mean age, weight, and BMI were 43.6±11.1 years, 102.8±21.6 kg, and 36.4±7 kg/m^2, respectively. After 4 months, mean WL and TBWL were 14.0±5.7 kg and 15.9±5.7 %, respectively. At second balloon placement, mean weight and BMI were 90.8±20.2 kg and 32±6 kg/m^2. Consecutive balloon resulted in additional WL and TBWL of 7.3±5.3 kg and 9.3±7.1, with total WL, TBWL, and BMI decrease of 19.3±8.9 kg, 22.1±9.5 %, and 7±3.4 kg/m^2, respectively, at the end of 12-months. In the first AGB, there were two early balloon removals, one due to pregnancy and one due to history of appendicitis. In the second AGB, adverse events were mild (intolerance requiring balloon removal 5.0%, hyperinflation 0.8%, premature deflation 1.7%). There were no serious adverse events.

Conclusion

This study demonstrates that consecutive Allurion Balloon treatment achieves an average 22.1% TBWL. This surpasses published results of 12-month endoscopic IGB and approaches weight loss surgery results, while maintaining an excellent safety profile.

A245

Repair of a Recurrent Paraesophageal Hernia with a Slipped Magnetic Sphincter Augmentation Device following Sleeve Gastrectomy.

Maher El Chaar *Allentown PA*[1], Andrew Lin *Allentown PA*[2]
St Luke's University Hospital and Health[1] St Luke's University Health Network[2]

The case demonstrated in this video is of a patient with a history of sleeve gastrectomy and paraesophageal hernia repair. She presented to our institution with symptoms of acid reflux and was found to have a recurrent paraesophageal hernia. She declined conversion to roux-en-Y gastric bypass (RnYGB) and instead elected for redo paraesophageal hernia repair with placement of a magnetic sphincter augmentation (MSA) device as an anti-reflux procedure due to lack of a fundus. Unfortunately, one year following this repair, she developed symptoms of dysphagia and workup demonstrated a recurrent paraesophageal hernia and slipped MSA device. She was advised to undergo conversion to RnYGB, but again declined, so she underwent a third paraesophageal hernia repair and removal of the slipped MSA device. The procedure was performed via robotics platform.

A246

Robotic Assisted Takedown of Gastro-Gastric Fistula

Maher El Chaar *Allentown PA*[1], Andrew Lin *Allentown PA*[2]
St Luke's University Hospital and Health[1] St Luke's University Health Network[2]

The video case presentation demonstrates the surgical resection of an acquired gastro-gastric fistula in a patient with a prior roux-en-Y gastric bypass. The patient developed severe gastrointestinal reflux disease (GERD) years after her bypass. On workup with upper endoscopy and contrast studies, a fistula between her gastric pouch and excluded stomach (gastric remnant) has developed. Closure of the fistula was attempted with an endoscopic clip, but was not successful. The patient then underwent surgical management of the gastro-gastric fistula as demonstrated in the video presentation. The surgical approach was made complex due to the presence of the endoscopic clip and ultimately due to difficulty developing a safe plane, the decision was made to perform an en-bloc resection of the fistula tract with the proximal gastric remnant and gastric pouch. The patient did well after the surgery and no longer has symptoms of GERD.

A247

Long-term outcomes of sleeve gastrectomy for super-obese patients (> 47.5 BMI) in Korea.

Sang-Moon Han *Seoul*
Seoul Medical Center

Introduction:
Recent clinical studies have suggested sleeve gastrectomy is the most performed effective treatment modality for severe obesity. However, long-term data after sleeve gastrectomy has not been investigated for super-obesity in Korea.

Objectives:
This study aims to evaluate the long-term effects of sleeve gastrectomy in super-obese populations in Asian populations

Methods:
We retrospectively reviewed patients who underwent sleeve gastrectomy from 2007 to 2022. We evaluated long-term (≥ 60 months) outcomes.

Results:
42 patients who underwent sleeve gastrectomy from 2007 to 2022 were included. The mean age at the time of surgery was 32.57 ± 3.79 years. The mean weight was 137.44 ± 15.15 kg and the mean body mass index (BMI) was 49.22 ± 2.66 kg/m^2 preoperatively. The BMI in the postoperative first, third, fifth and seventh year was 31.40 ± 3.77, 31.89 ± 3.40, 35.39 ± 3.30, and 30.12 ± 1.77, respectively. The percentage of total weight loss in the postoperative first, third, fifth and seventh year was 36.36 ± 6.29, 35.28 ± 5.72, 27.78 ± 8.99, and 40.17 ± 6.49, respectively. There was no 30-day peri-operative mortality. The complication rates within 30 days were 4.76% including 1 bleeding and 1 wound infection.

Conclusion:
These findings show that sleeve gastrectomy is a safe and effective long-term bariatric-metabolic surgery option for super-obesity in Korea. Randomized prospective control studies between sleeve gastrectomy or Roux-en-Y gastric bypass are needed to confirm the long-term bariatric-metabolic effects and safety

A248

Assessing Cognitive Bias in a Bariatric Multidisciplinary Committee

Katie Marrero *Urbana IL*[1], Christian Perez *Redondo Beach CA*[2]
Carle Foundation Hospital[1] UCLA-Harborview[2]

While there is a higher prevalence of obesity-related diseases within minority groups, they are less likely to undergo bariatric procedures than their Caucasian counterparts. These disparities may be due in part to implicit bias, which is a form of cognitive bias. This study aims to identify whether cognitive bias exists within our Bariatric Surgery Multidisciplinary Committee (MDC) selection process.

We looked at a 5-year timeframe of all patients who were discussed at MDC and for what reasons they were presented- medical complexity, social issues, psychology concerns, or being a revisional case. We then compared those who were cleared for surgery versus those who were deferred or denied to see what reasons these were for.

We had a total of 326 patients included, of which 127 underwent surgery while 102 were deferred and 69 denied. Psychology concerns were the most common reason for referral for MDC. Psych and social concerns were the more common reasons for deferral or denial of surgery (see table 1).

Over half of the patients discussed at our MDC were for social and psychological concern. While this may suggest these patients have more complex medical histories leading into surgery and warrant a discussion, we cannot state that bias may not be a part of these screenings. This study demonstrates the presence of bias can be present in determining what patients undergo bariatric operations. We hope by disseminating this, we can encourage other bariatric groups to evaluate their own decision processes and increase the availability of these procedures.

A252

Implementing Statistical Process Control Quality Improvement Methodology to Improve GI Bleed Rates After Bariatric Surgery

Charles Burney *Carmel IN*[1], Qais AbuHasan *Indianapolis IN*[1], Wendy Li *Indianapolis IN*[1], Ambar Banerjee *Carmel IN*[1], Jennifer Choi *Indianapolis IN*[1], Don Selzer *Indianapolis IN*[1], Dimitrios Stefanidis *Carmel IN*[1], Tarik Yuce *Hilliard OH*[1]
Indiana University School of Medicine[1]

Introduction

Post-operative gastrointestinal (GI) bleeding, while infrequent, is the most common complication after bariatric surgery. We aimed to determine whether the GI bleeding rate in our MBSAQIP Center of Excellence had room for improvement and identify a process to actively monitor potential interventions using novel application of Lean Six Sigma quality improvement methodology.

Methods

Statistical Process Control (SPC) was used to analyze our GI bleed data. Patient demographic, procedure, and complication data were abstracted from our MBSAQIP database from July 2022 to August 2023. GI bleeds were categorized as intraluminal or extraluminal, by case type and time-to-bleed. A G-chart was constructed using number of operative cases between GI bleed events.

Results

Of 531 cases, 15 (2.8%) post-operative GI bleeds occurred within 30 days of operation. A total of 11 (73%) occurred after Roux-en-Y gastric bypass, 2 (13%) after sleeve gastrectomy, and 2 (13%) after conversions. Bleeds were predominantly intraluminal (n=11, 73%) and 4 (27%) were associated with therapeutic anticoagulation. Bleeds occurred between 0 and 25 days post-operatively (median 2, IQR 1-10). A G-Chart of cases between events (figure 1) demonstrated common cause variation. No special cause signals were identified.

Conclusions

The overall rate of GI bleeds and the variation identified in our G-Chart suggests that our GI bleed rate can be improved upon. Planned interventions include intra-operative normalization of blood pressure to evaluate for bleeding and adjustment of post-operative anticoagulation management. SPC methodology will allow active monitoring of outcomes and may be useful to other bariatric programs to improve outcomes.

A253

The immunological impact of laparoscopic sleeve gastrectomy in HIV-positive patients: a single-center retrospective study.

Ami Sanathara *Buena Park CA*[1], Angeline Merzier *Hollywood FL*[1], Jamie DeCicco *Cleveland OH*[1], AJ Haas *Cleveland OH*[1], Alejandro Feria *Cleveland OH*[1], Kevin El-Hayek *Cleveland OH*[1], Amelia Dorsey [1], Robert Kalayjian *Solon OH*[1], Sergio Bardaro *Shaker Heights OH*[1]
The MetroHealth System, Cleveland, OH[1]

Introduction:

Metabolic bariatric surgery (MBS), including laparoscopic sleeve gastrectomy (LSG), increases stomach pH and reduces gastric mixing, diminishing drug disintegration. This may affect antiretroviral pharmacokinetics, resulting in treatment failure and drug resistance in HIV-positive patients on antiretroviral therapy (ART). This study investigates the relationship between MBS and HIV-related laboratory parameters.

Methods:

Single-center retrospective study of virologically suppressed (VS) HIV-positive patients on ART who underwent LSG between October 2014-2023. Parameters analyzed: viral load (VL); CD4; CD4/CD8 ratio, collected per usual clinical care; and ART.

Results:

Sample: 10 HIV-positive patients VS on ART (mean age 46.2±10.3 years, 70% female, 80% African-American, median BMI (kg/m^2) 46.2 [38.8-51.0]). Time followed: median 42 [15-70] weeks post-LSG. All patients remained VS at first post-LSG measurement (median 2.5 [1-4.5] months). Breakthrough VL (> 50 copies/mL) was seen in 2 patients, but viral suppression was restored without ART changes. All patients remained VS at last follow-up measurement. Median CD4 (cells cu/mm) was 786 [524-1186] preoperatively, decreased within 6 months postoperatively (637 [316-954], S=-10.5, p=0.03), but returned to baseline within 12 months (762 [635-1088], S=2.0, p=0.81). Median CD4/CD8 ratio was 0.83 [0.51-1.11] preoperatively and remained stable postoperatively (12 months, 0.89 [0.65-1.1], S=4.0, p=0.71).

Conclusion:

MBS did not affect VL or ART efficacy. Throughout follow-up, 8 of 10 medication-compliant patients remained VS. All patients regained VS by last follow-up without ART changes. CD4 and CD4/CD8 ratio remained stable within 12 months. LSG for treatment of obesity and comorbidities in HIV-positive patients is safe and does not jeopardize ART-mediated viral suppression.

A254

Robotic attempted SADI-S converted to BPD with SG and duodenal bulb resection due to severe inflammation from peptic ulcer disease

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2], Yeisson Rivero *BROOKLYN NY*[1], Samantha Redden-Chirinos *Houston TX*[3], Victor Bolivar *Houston TX*[4], Omar Gaytan Fuentes *Mexico City MEX*[5], Seiichi Kitahama *Osaka* [6], Beniamino Pascotto *Luxembourg* [7]

Nacogdoches Medical Center[1] CHU d'Orleans[2] Baylor College of Medicine[3] University of Texas[4] UNAM[5] Chibune General Hospital[6] Centre Hospitalier de Luxembourg[7]

Robotic SADI-S is a safe and feasible metabolic and bariatric procedure that is ideal for patients with type 2 diabetes and BMI over 50 with no signfiicant GERD. We present the case of a 46 y/o female with severe obesity and BMI of 57, with type 2 diabetes, metabolic syndrome and mild GERD. She had a history of significant peptic ulcer disease (PUD) with H pylori infection requiring triple therapy and documentation of eradication. The patient was advised against a Roux en Y gastric bypass due to the need for possible endoscopic surveillance.

She chose a robotic SADI-S, which was attempted but had to be converted to a robotic BPD due to inability to preserve the duodenal bulb due to severe PUD found intraoperatively . This finding required an en-bloc resection of the inflamed duodenal bulb and pylorus with conversion to BPD and sleeve gastrectomy in a Roux en Y configuration to avoid a loop anatomy that could promote bile reflux in the future. The procedure was performed successfully and the patient was discharged to home without complications.

PUD and chronic duodenal bulb inflammation may be a contraindication for SADI-S or BPD-DS and may require conversion to BPD. A Roux en Y gastric bypass is relatively contraindicated in this context due to the possible need for endoscopic surveillance. The robotic platform offers several ergonomic advantages, but there is no substitute for good surgical judgment, which takes precedence over the MIS approach.

A255

Robotic Roux-en-Y gastric bypass revision with gastrojejunostomy reconstruction and Roux limb distalization for marginal ulcers and severe bile reflux

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2], Yeisson Rivero *BROOKLYN NY*[1], Samantha Redden-Chirinos *Houston TX*[3], Victor Bolivar *Houston TX*[4], Omar Gaytan Fuentes *Mexico City MEX*[5], Seiichi Kitahama *Osaka* [6], Beniamino Pascotto *Luxembourg* [7]

Nacogdoches Medical Center[1] CHU Orleans[2] Baylor College of Medicine[3] University of Texas[4] UNAM[5] Chibune General Hospital[6] Centre Hospitalier de Luxembourg[7]

Roux-en-Y gastric bypass (RYGB) is an efficient and safe metabolic and bariatric procedure, but long term complications may include marginal ulcers at the gastrojejunostomy (GJ) and possible bile reflux if a short Roux limb is present. We introduce the case of a 57 year old female with a prior laparoscopic RYGB complicated by chronic marginal GJ ulcers and bleeding with obstruction refractory to medical and endoscopic therapies. She was consented for a robotic GJ reconstruction and Roux limb distalization to elongate the Roux limb as a result of her preoperative work up.

The procedure was performed with the robotic platform without complications. The patient underwent a successful GJ anastomosis reconstruction along with transposition of the biliopancreatic (BP) limb to distalize the Roux limb and prevent further bile reflux. Postoperative hospitalization and subsequent outpatient follow up were satisfactory, with endoscopy at 3 years showing no complications and with adequate quality of life.

RYGB may lead to chronic marginal ulcers that might require robotic revision with GJ reconstruction and possible Roux limb distalization to prevent further bile reflux. The use of the robotic platform offers multiple ergonomic advantages in metabolic and bariatric surgery, particularly for revisions. Good surgical judgment always takes precedence over the type of MIS approach selected.

A256

Robotic VBG conversion to Roux-en-Y gastric bypass with partial gastrectomy for severe GERD and gastric inlet obstruction

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2], Yeisson Rivero *BROOKLYN NY*[1], Samantha Redden-Chirinos *Houston TX*[3], Omar Gaytan Fuentes *Mexico City MEX*[4], Seiichi Kitahama *Osaka* [5], Beniamino Pascotto *Luxembourg* [6], Victor Bolivar *Houston TX*[7]

Nacogdoches Medical Center[1] CHU Orleans[2] Baylor College of Medicine[3] UNAM[4] Chibune General Hospital[5] Centre Hospitalier de Luxembourg[6] University of Texas[7]

VBG may lead to complications over the years including gastric inlet obstruction from extrinsic compression due to the non adjustable gastric band and adhesions, dysphagia, GERD, and other problems. We present the case of a 63 y/o male with a history of open VBG in 1992 complicated by gastric inlet obstruction, dysphagia and severe GERD who underwent a preoperative work up with endoscopy and radiographic studies. Consensus from a multidisciplinary panel revealed that he was a good candidate for robotic conversion of the VBG anatomy to a Roux-en-Y gastric bypass (RYGB) with or without partial gastrectomy of the excluded portion of the stomach depending on blood supply and scar tissue.

The robotic VBG was converted to a RYGB with partial gastrectomy of the proximal stomach due to poor perfusion and scar tissue evaluated intraoperatively with ICG fluorescence and endoscopy. The operation was performed successfully and the patient had a favorable hospital course and outpatient follow up at 3 years with upper endoscopy revealing no complications from the RYGB including an intact GJ anastomosis.

Conversion of VBG to RYGB is feasible and safe, and has been well documented in the literature. A partial gastrectomy may be necessary in select cases due to poor perfusion of the excluded portion of the stomach, scar tissue formation, narrowing from gastric inlet obstruction or all of the above. The use of ICG fluorescence and intraoperative endoscopy is helpful to decide whether a partial gastrectomy is needed or not.

A257

Robotic Roux-en-Y gastric bypass revision with gastrojejunostomy reconstruction for marginal ulcers with bleeding and obstruction

Rodolfo Oviedo *Nacogdoches TX*[1], Adel Abou-Mrad *Saint Jean de la ruelle* [2], Samantha Redden-Chirinos *Houston TX*[3], Yeisson Rivero *BROOKLYN NY*[1], Victor Bolivar *Houston TX*[4], Omar Gaytan Fuentes *Mexico City MEX*[5], Seiichi Kitahama *Osaka* [6], Beniamino Pascotto *Luxembourg* [7]

Nacogdoches Medical Center[1] CHU Orleans[2] Baylor College of Medicine[3] University of Texas[4] UNAM[5] Chibune General Hospital[6] Centre Hospitalier de Luxembourg[7]

Robotic Roux-en-Y gastric bypass (RYGB) is safe and effective as a metabolic and bariatric procedure, but it may lead to complications such as chronic marginal gastrojejunostomy (GJ) ulcers that might not heal despite medical and endosocopic therapies. These complications may include bleeding, obstruction, perforation, or all of the above We present the case of a 58 year old female with BMI of 19 and chronic marginal ulcers with bleeding and obstruction refractory to medical therapy and endoscopic dilation. She was consented for a robotic GJ revision after a multidisciplinary evaluation by a panel of experts.

The operation was performed with the robotic platform without complications. The retrocolic antegastric RYGB anatomy was associated with chronic inflammation at the GJ anastomosis that required meticulous adhesiolysis. A new GJ anastomosis with intact blood supply was constructed after resection of the GJ with a redundant blind end of the Roux limb (candy cane). The patient had a favorable hospital course and outpatient follow up. Upper GI endoscopy at 4 years showing no complications from the revised GJ anastomosis and was associated with improved quality of life, weight, and nutrition status.

Chronic GJ ulcers may be caused by technical factors, patient-related factors, or both. A revision of the RYGB may have to be performed with resection and reconstruction of the GJ when medical and endoscopic therapies fail. The robotic platform offers excellent ergonomic advantages for revisional metabolic and bariatric surgery, but surgical judgment takes precedence over the MIS approach.

A259

A comparison of robotic and laparoscopic staplers in robot-assisted Roux-en-Y gastric bypass procedures regarding cost and efficiency

Mahmod El-Tayash *Grinnell IA*[1], Jarrod Phelps *Grinnell IA*[2], Juliane Hafermann *Koenigswinter* [3]
Grinnell medical central[1] Grinnell medical Center[2] Coreva Scientific GmbH & Co.[3]

Background
Stapling is an essential step during bariatric surgery that can be done by robotic or hand-held laparoscopic staplers. We compared both stapler types regarding their impact on procedure time and stapler-associated costs.

Methods
We retrospectively analyzed 105 patients who underwent robot-assisted Roux-en-Y gastric bypass (RYGB) surgery with robotic staplers (EndoWrist, Intuitive Surgical) (n=50) or laparoscopic staplers (Signia, Medtronic) (n=55) between May 2022 and November 2023 at a single institute. Primary outcomes were operating room time and stapler-associated costs. Secondary outcomes were console time, active time (when the robot was active instead of waiting), number of instrument exchanges, and length of stay. Outcomes were compared using unpaired t-tests.

Results
Patient populations treated with laparoscopic and robotic staplers were comparable regarding age, weight, Body Mass Index, and simultaneous hiatal hernia repair. Compared to robotic staplers, laparoscopic staplers significantly reduced operating room time by 17.62±5.48 min (mean difference ± standard error) ($p=0.0017$), console time by 16.23±4.97 min ($p=0.0015$), and active time by 13.88±4.42 min ($p=0.0022$). This resulted in 2.35±1.10 min less waiting time ($p=0.0348$). In addition, laparoscopic staplers required 65% fewer instrument exchanges ($p<0.0001$), reduced the number of stapler firings per surgery from 6.70±0.61 to 6.29±0.46 ($p=0.0002$), and saved USD 698±24 in material costs for stapling ($p<0.0001$). The length of stay was comparable for both stapler types ($p=0.2308$). No intra- or post-operative complications were observed in either group.

Conclusion
The use of laparoscopic staplers streamlined robot-assisted RYGB: stapling was more efficient and less costly than with robotic staplers without affecting patient safety.

A260

No Surprise! Band Over Bypass Disasters.

Gabriel Glaun *Tampa FL*[1], Tuan Tran *Tampa FL*[1], John Gonzalvo *Tampa FL*[1], Michel Murr *Tampa FL*[1]
AdventHealth Tampa[1]

We are presenting three cases encountered this year involving surgical complications from adjustable lap bands placed on gastric bypass pouches. The first case involves an acute presentation of a slipped band causing gastric outlet obstruction. The second case highlights an elective encounter of a slipped band resulting in partial obstruction and hiatal hernia, as well as an unexpected esophageal mass. The third case involves an eroded lap band requiring an elective laparoscopic converted to open band removal. The presentation highlights the complexity of these cases and their complications, as well as the necessity of being prepared to perform all operative approaches ranging from endoscopic to open.

A261

Factors for Remission of Type 2 Diabetes in Severely Obese Patients after Bariatric Surgery in Korea

SUNGIL CHOI *Seoul* [1], In Kyung Jung [1], Jee Eun Jun [1], Sang Jun Lee [1]
KyungHee University Hospital at Gangdong[1]

Objective:
The aim of this study was to investigate the effect of bariatric surgery on the remission rate of type 2 diabetes mellitus (T2DM) and factors affecting it in patients with obesity and T2DM for more than 1 year after bariatric surgery.

Results:
Of the 170 patients who underwent bariatric surgery in the period, 83 patients with T2DM were included in this study. Mean age was 48.2±11.1year, male sex ratio was 26.5% and mean BMI was 36.6±6.3kg/m². Three types of laparosopic bariatric surgeries were performed; 24 sleeve gastrectomies (28.9%), 55 Roux-en-Y gastric bypasses (66.3%), and 4 sleeve gastrectomy with duodenojejunal bypasses (4.8%). Percentage total body weight loss was 22.3±6.6% at 1 year after surgery. The remission rates of T2DM (HbA1C<6.5% and not taking any T2DM medication) were achieved 71.4% at 6 months and 81.0%, at 1 year after surgery. Significant improvements at 1 year after surgery were observed in HbA1c (-1.6±1.2mg/dL), triglycerides (-75.0±82.9mg/dL), HDL-Cholesterol (+7.2±10.7mg/dL), systolic blood pressure (-19.9±21.0mmHg), diastolic blood pressure (-13.3±15.2mmHg) and insulin resistance (HOMA-IR, -6.1±8.3). Univariate analysis identified lower ABCD score, higher HbA1c, lower preoperative insulinogenic index(IGI), usage of oral anti-diabetic medication, and usage of insulin treatment were significant risk factors. Multivariate analysis confirmed that higher IGI and shorter duration of T2DM were independent favoring factors of the remission of T2DM.

Conclusion:
Bariatric surgery can be considered as an effective treatment option for remission of T2DM, and patients with higher preoperative IGI showed better outcomes at 1 year after bariatric surgery.

A262

Evaluation of Engagement in a Multimodal Weight Management Program

Anastasia Philippopoulos *Stony Brook NY*[1], Carl Bruening *Hartsdale NY*[1], Anela Salkanovic [1], Hallie Klimov *Merrick NY*[1], Jessica Cannone *Stony Brook NY*[1], Jenna Palladino *Smithtown NY*[2], Adam Gonzalez *Stony Brook NY*[1], Genna Hymowitz *Centereach NY*[1]
Stony Brook Medicine[1] Mount Sinai[2]

Although 73.1% of the adult US population struggle with overweight or obesity, weight loss programs are often costly and fail to meet people's individualized needs. The current study aimed to evaluate participant engagement in an individualized stepped-care weight management program.

Enrolled participants (Age ≥18; BMI ≥25) completed online measures of biopsychosocial functioning. Retention and level of care were used to assess program engagement. Neighborhood area deprivation index (ADI), body mass index (BMI), Edmonton Obesity Staging System (EOSS), and demographic information were extracted from medical records and analyzed using chi-square tests.

Participants (n = 137) averaged 47.62 years of age (±11.24; range 23-76), a state ADI of 5.45 (±1.33; range 2-9), national ADI of 23.26 (±9.99; range 5-73), and EOSS of 1.44 (±0.73). They primarily identified as White non-Hispanic (69.1%) and female (71.9%); 32.1% (n=34) met criteria for Class I Obesity (n=34), 28.3% for Overweight (n=30), 19.8% for Class II (n=21), and 19.8% (n=21) Class III.

More participants who completed a clinic visit but were unresponsive to survey follow-ups had a higher obesity class than active participants or those who removed themselves from the program (χ^2 (6, n=106)=18.84; p=.004). Participants choosing more intensive care (e.g., medication management, surgery versus MHealth application, therapy) had higher EOSS (χ^2 (24, n=102)=66.89; p<.001) and state ADI (χ^2 (36, n=102)=60.55; p=.006).

Increased biopsychosocial health risks were associated with engagement in more intensive levels of care, especially among those with higher neighborhood disadvantage. Future research should examine the benefits of accessible psychosocial interventions on weight management care.

A265

Propensity Analysis: Roux-en-Y Gastric Bypass Conversion to Duodenal Switch versus Conversion to Single Anastomosis Duodeno-Ileal Bypass

Brycen Ratcliffe *Columbia MO*[1], Joshua Landreneau *Columbia MO*[1], Benjamin Castro *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Samuel Perez *Columbia MO*[1]
University of Missouri[1]

Introduction:
Patients are increasingly experiencing weight regain or insufficient weight loss after primary Roux-en-Y Gastric Bypass (RYGB) procedures. The use of a conversion to Biliopancreatic Diversion with Duodenal Switch (BPD/DS) or Single Anastomosis Duodeno-Ileal bypass (SADI) remains a rare occurrence in practice and literature. Therefore, our primary aim was to compare outcomes between patients receiving a conversion from RYGB to either BPD/DS or SADI.

Methods:
The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database was used for years 2020-2021. Propensity score matching was conducted in a 1:1 nearest neighbor fashion with a 0.2 caliper width to create two well-balanced cohorts.

Results:
A total of 349 patients were available for analysis, with 277 patients undergoing conversion from RYGB to BPD/DS and 72 patients converted from RYGB to SADI. A total of 331 patients had a conversion due to either inadequate weight loss (n=165) or weight regain (n=166). Before matching, patients receiving the conversion to BPD/DS experienced significantly increased rates of preoperative hypertension (48.4% vs 31.9%,p=0.018) and sleep apnea (37.5% vs 18.1%,p=0.003). Propensity score matching (PSM) yielded 68 patient pairs with adequate covariation between groups. Four SADI patients did not match due to inadequate control availability. After matching, there were no statistically significant differences in postoperative outcomes. Additionally, operative time was similar between both groups (209.3 min ± 74 vs 213.8 min ± 95,p=0.745).

Conclusion:
The postoperative outcomes between conversion from RYGB to either BPD/DS or SADI have shown to be similar after propensity score matching.

A267

Conversion of Sleeve Gastrectomy to Duodenal Switch versus Sleeve Gastrectomy to Single-Anastomosis Duodenal Switch: Propensity Score Matched MBSAQIP Analysis

Nathan May *Columbia MO*[1], Samuel Perez *Columbia MO*[1], Thomas Xu *Columbia MO*[1], Elliot Toy *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1]
University of Missouri Healthcare[1]

Introduction

Single anastomosis duodenoileostomy with sleeve (SADI-S) is becoming increasingly popular due to its decreased technical complexity yet excellent outcomes with perceived lower complication rates compared to the biliopancreatic diversion with duodenal switch (BPD-DS). Our goal was to compare the early outcomes of patients undergoing conversion from a vertical sleeve gastrectomy (VSG) to either a BPD/DS or SADI-S.

Methods

The prospectively maintained Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database from 2020-2021 was used to compare patients who underwent VSG conversion to a BPD/DS or SADI-S. A 1:1 nearest neighbor propensity score-matched analysis was performed.

Results

1,874 patients underwent conversion from VSG to either BPD/DS (n=1,152) or SADI-S (n=722). Patients undergoing SADI-S were more likely to have a history of deep vein thrombosis (3.74% vs 2.08%; p=0.046). Of the 708 patient pairs, SADI-S patients had an increased rate of outpatient dehydration treatment (2.97% vs 1.27%; p=0.045). There were no statistically significant differences in any major postoperative complications including reintervention, readmission, reoperation, leak, postoperative bleeding, or death within thirty days. Interestingly, there was no significant difference in operative times between the matched SADI-S and BPD/DS groups (148min ± 70 vs 149min ± 67;p=0.717).

Conclusion

Early postoperative complications are similar when converting VSG to BPD-DS or SADI-S. While conclusions can only be made about early postoperative complications, BPD-DS appears to have a similar safety profile compared to SADI-S. Long-term benefits and complications need to be further defined for more definitive recommendations regarding procedure choice when converting VSG.

A268
Robotic Revisional Surgery - From Lap Band to OAGB

Gaytán-Fuentes Omar Felipe1 MD, FACS, Barajas-Galicia Edith1 MD, Galván-Remigio Isabel1 MD, Chávez-García Geovany1 MD, Gaytán-Fuentes IA2 MD, Rodolfo J. Oviedo3 MD, FACS, FASMBS, Barba-Mendoza Jairo Arturo1 MD

1- General Surgery Department, "CMN 20 de Noviembre" ISSSTE, México City, México
2- Montefiore Medical Center, Albert Einstein College of Medicine. Bronx, NY, USA
3- University of Houston, Houston, TX. USA
Omar Gaytan Fuentes *Mexico City MEX*[1], Edith barajas galicia *Naucalpan Edo de Mex*[2], Geovany Chávez García *Cuautitlan* [2], Isabel Galván Remigio *Atizapán de Zaragoza* [2], Israel Gaytán Fuentes *New York NY*[3], Rodolfo Oviedo *Nacogdoches TX*[4], Jairo Barba Mendoza *Ciudad de Mexico* [2], Oliver Adan Barajas Galicia *Mexicali, B.C.* [5]
Centro Medico Nacional 20 de Noviembre// Revenant Clinic[1] CMN 20 de Noviembre" ISSSTE, México City[2] Montefiore Medical Center[3] University of Houston, Houston, TX. USA[4] Hospital General de Mexicalli, SS, Mex.[5]

Introduction:
Revisional Robotic Bariatric Surgery is frequently reported in developed countries. The dramatic increase in annual bariatric operations in the United States is accompanied by a rising number of bariatric surgical procedures. Currently, reoperation rates for bariatric surgery range between 5% and 10% after gastric bypass, 27.8% after sleeve gastrectomy, and over 50% in band gastrectomy cases. Recorded reasons for revision include insufficient weight loss (IWL), weight recurrence (WR), and gastroesophageal reflux disease (GERD).

Objective:
To follow the case of robotic conversion surgery from Gastric Band to OAGB and observe its evolution and potential future complications.

Case Presentation:
SJJF, a 37-year-old female with a significant history of Bipolar Disorder type II, experienced a progressive weight increase from age 15, reaching 93 kg with a BMI of 35.9 at age 28. She underwent Gastric Band Bariatric Surgery in 2012, achieving a weight loss of 40 kg and a BMI of 20. However, she gained 30 kg in 10 years with a BMI of 33. Conversion surgery was proposed for GI Obesity + GERD + WR.

Reintervention surgery was performed with OAGB on 29.03.2023, showing adequate immediate and mid-term post-surgical evolution. The patient exhibited satisfactory weight evolution, reaching 74 kg and a BMI of 28.5 after 9 months.

Conclusions:
The significance of Revisional Robotic Bariatric Surgery lies in the substantial number of patients requiring a second long-term revision due to multiple causes. It is essential to follow up with patients to detect potential future complications and assess the surgery's effectiveness.

A270
Robotic Bariatric Surgery in patients with super-super obesity. Report of two cases

Gaytán-Fuentes Omar Felipe1 MD, FACS, Barajas-Galicia Edith1 MD, Galván-Remigio Isabel1 MD, Chavez-Garcia Geovany MD, Gaytán-Fuentes IA2 MD, Rodolfo J. Oviedo3 MD, FACS, FASMBS, Barba-Mendoza Jairo Arturo1 MD
1- General Surgery Department, "CMN 20 de Noviembre" ISSSTE, México City, México
2- Montefiore Medical Center, Albert Einstein College of Medicine. Bronx, NY, USA
3- University of Houston, Houston, TX. USA
Omar Gaytan Fuentes *Mexico City MEX*[1], Edith barajas galicia *Naucalpan Edo de Mex*[2], Isabel Galván Remigio *Atizapán de Zaragoza* [2], Geovany Chávez García *Cuautitlan* [2], Israel Gaytán Fuentes *New York NY*[3], Rodolfo Oviedo *Nacogdoches TX*[4], Jairo Barba Mendoza *Ciudad de Mexico* [2]
Centro Medico Nacional 20 de Noviembre// Revenant Clinic[1] CMN 20 de Noviembre ISSSTE, México City[2] Montefiore Medical Center[3] University of Houston, Houston, TX. USA[4]

Introduction:
Super-super obesity, characterized by a BMI > 60 kg/m2, poses significant global health risks, often accompanied by chronic conditions such as diabetes, hypertension, and dyslipidemia. Robotic bariatric surgery has emerged as a crucial intervention, effectively reducing weight and decreasing associated health issues.

Objective:
Present two cases of super-super obesity treated with robotic bariatric surgery, evaluating their progress and potential complications.

Cases Presentation:
In the first case, a 34-year-old male with difficult-to-control HPB, OSAS treated with a CPAP device, and generalized anxiety disorder. Initiated treatment at 250 kg and a BMI of 94.33 at age 34. Gastric sleeve surgery in March 2019 resulted in a remarkable one-year weight loss of 140 kg. In 2021, weight gain occurred due to a lapse in multidisciplinary management. The current weight is 160 kg with a BMI of 60.37, with correction of initial comorbidities.

The second case features a 45-year-old female with a history of depressive disorder managed therapeutically and Robot-assisted radical hysterectomy for uncomplicated endometrial cancer. Starting treatment at 213 kg and a BMI of 83 in January 2020, gastric sleeve surgery led to a three-year weight reduction to 126 kg without setbacks. The current BMI is 49.21.

Conclusions:
Robotic bariatric surgery proves an excellent alternative for super-super obesity, ensuring substantial weight loss. Identifying such patients and initiating an evaluation protocol for robotic bariatric surgery is crucial for improving their quality of life. However, considering the surgical challenges and increased complications, comprehensive follow-up by a multidisciplinary team is essential.

A272

Implementing the Bariatric Surgery Targeting Opioid Prescribing Initiative and its Effect on Patient Pain

Shawn Liechty *Charlotte NC*[1], Benjamin Enciso *Charlotte NC*[1], Keith Gersin *Charlotte NC*[1], Timothy Kuwada *Charlotte NC*[1], Roc Bauman *Concord NC*[1], Abdelrahman Nimeri *Boston MA*[2], Trenton Pritt *Concord NC*[1], Shakya Gray *Chester VA*[1], Iain Mckillop *CHARLOTTE NC*[1], Kyle Thompson *Charlotte NC*[1], SELWAN BARBAT *Novi MI*[1]
Atrium Health[1] Brigham and Women's Hospital[2]

Introduction

Bariatric Surgery Targeting Opioid Prescribing (BSTOP) is an initiative to reduce post-operative opioid use. We investigated whether a BSTOP protocol could significantly decrease morphine milligram equivalents (MME) without negatively impacting pain scores.

Methods

This is a single institution, multi-center retrospective study of patients undergoing primary bariatric surgery from January 2017 to December 2022. BSTOP was implemented January 1, 2020 (BSTOP group). Prior to BSTOP there was no standardized analgesia regimen regarding opioid restriction; PCA and oral narcotics post discharge were routine(Non-BSTOP). Primary outcomes were MME and pain scores (Numerical Rating System). Comparisons were made between groups using Student's t-test with p-value <0.05 considered significant.

Results

There were 3,263 patients in the study group. There were 1560 patients in the Non-BSTOP Group (907 RYGB and 653 sleeve). The 1703 patients in the BSTOP group (1,207 RYGB and 496 sleeve) demonstrated an 86.3% reduction in inpatient MME (182.81 vs 25.03, $p<0.0001$) and 91.1% reduction in outpatient MME (213.79 vs 19.02, $p<0.0001$). Inpatient self-reported pain was similar between groups (5.14 vs 5.14, $p=0.98$).

Conclusion

The BSTOP initiative is effective in reducing opioid use both inpatient and outpatient without increasing pain scores. Further investigation is needed to refine multimodality pain control to further reduce pain scores.

A273

Achalasia and Morbid Obesity

Ala Wafa *Misurata*
Misurata University

Background

Achalasia is a rare medical condition characterized by failure of relaxation of the lower esophageal sphincter due to esophageal motility disorder. Patient usually present with progressive dysphagia, regurgitation with retrosternal pain. Classically not associated with obesity. Treatment of achalasia and morbid obesity simultaneously need special careful consideration because few case reports found in the literature combining a management of two problems together.

Methods

We present the case of 30-year-old female with a BMI 41.7 status post endoscopic pneumatic dilatation of lower esophageal sphincter 10 years back. Post operative period passed with temporary improvement of dysphagia. Patient has maladaptive eating pattern with high sugar diet resulting into morbid obesity. Barium swallow revealed rat tail appearance. Upper GI Endoscopy revealed largely dilated esophagus with narrowing of lower esophageal sphincter. Esophageal manometry reveals failure of relaxation of lower esophageal sphincter confirm diagnosis of achalasia. Surgical plan is Heller myotomy with Roux-en-Y gastric bypass.

RESULTS

Laparoscopic exploration started with identification of the hiatus and dissection of the esophagus up to the mediastinum. myotomy started at lower esophagus up to the 6 cm above, followed by myotomy 2cm below gastroesophageal sphincter. Furthermore, standard Roux-en-Y gastric bypass done. Lastly leak test was performed and was negative. Patient discharged on POD 2 with good condition and no complain.

Conclusion

Achalasia associated with morbid obesity is a rare condition. Combined Heller myotomy with Roux-en-Y gastric bypass is feasible, safe and effective for treatment of both diseases in the same operation.

A274

Revision of Sleeve Gastrectomy to Single-Anastomosis Duodenoileal Bypass: Two-Year Outcomes Comparing 250cm vs 300cm Common Channel Length

Robert Casillas *Los Angeles CA*[1], Jorge Zelada Getty *Los Angeles CA*[1], Scott Um *Los Angeles CA*[1], Karen J Coleman *Pasadena CA*[1], Jay Patel *Los Angeles CA*[2], Adeel Ashfaq *Los Angeles CA*[1]

Kaiser Permanente[1] Kauser Permanente[2]

Background:

Single-anastomosis duodenoileal bypass (SADI) is an efficacious revision to address weight gain after laparoscopic sleeve gastrectomy (LSG). Controversy remains regarding optimal length of the common channel for weight loss and potential adverse outcomes.

Objective:

To analyze SADI revision for LSG, comparing 250cm (SADI-250) versus 300cm (SADI-300) common channel length.

Setting:

Community Hospital, Bariatric Center of Excellence, USA

Methods:

Data were collected prospectively from 58 patients who had a revision of LSG to SADI (35 with SADI-250; 23 with SADI-300). Outcomes included percent total weight loss (%TWL), complications, reoperations, and malabsorptive symptoms.

Results:

Data at 2 years were available for 56 patients (97%). There were no differences between common channel groups in preoperative weight, BMI and co-morbidities. Average time from original LSG to SADI was 59 months. Patients undergoing SADI-250 experienced greater weight loss than SADI-300 (55 vs 27 lbs; $p<.001$) and greater %TWL (20.9% vs 10.6%, $p<.001$) at 2 years. There was one reoperation in the SADI-300 group for a duodenal stump leak and no significant difference in the number of bowel movements or malabsorptive symptoms between groups ($p=0.62$).

Conclusion:

The SADI-250 was associated with significantly greater weight loss at 2 years compared to SADI-300, with no significant findings of malabsorptive states in either group. SADI revision for LSG using a 250 cm common channel leads to significant additional weight loss at rates shown to be associated with durable diabetes remission (20% TWL). Further data will be useful in assessing long-term differences.

A275

Social Support Impacts on Engagement in a Multimodal Weight Management Program

J. Susie Hwang *Stony Brook NY*[1], Kierra Law *Stony Brook NY*[1], Anastasia Philippopoulos *Stony Brook NY*[1], Jennifer LaChapelle *Brentwood NY*[1], Yiming Zhong *Stony Brook NY*[1], Chinenye Ugonabo [1], Jessica Cannone *Stony Brook NY*[1], Jenna Palladino [2], Adam Gonzalez *Stony Brook NY*[1], Genna Hymowitz *Centereach NY*[1]

Stony Brook Medicine[1] Icahn School of Medicine, Mount Sinai[2]

Social support plays a crucial role in weight loss maintenance. The present study evaluates the relationship between social support, health, and engagement with a stepped-care weight management program.

Participants (Age ≥ 18; BMI ≥ 25) completed the MOVE!ll questionnaire assessing biopsychosocial functioning. We conducted chi-square tests to compare items related to social support, health, and engagement.

Participants (n=114; Mage=47.6±11.2) primarily identified as female (n = 82; 71.9%) and non-Hispanic White (n=76; 69.1%), averaged a BMI of 34.68 (±7.23), national ADI of 23.26 (±9.99), and state ADI of 5.45 (±1.33).

More participants who reported experiencing family or relationship problems dropped out (χ^2 (2, n=89)=7.45, p=.024) and chose a more intensive level of care (e.g., medication management or surgery versus Noom or therapy; χ^2 (18, n=91)=29.35, p=.044). Those who reported experiencing loneliness or loss of a loved one dropped out (χ^2 (6, n=102)=17.84, p=.007) and chose a more intensive level of care (χ^2 (18, n=91)=29.35, p=.044). Lack of support was reported as a barrier to changing physical activity more in participants with lower national (χ^2 (2, n=88)=18.89, p<.001) and state ADI (χ^2 (6, n=88)=23.23, p<.001).

Lack of social support may impede healthy habit maintenance, as those who reported more interpersonal problems dropped out of the weight management program and chose a more intensive level of care at higher rates. Future research should utilize standardized measures to examine the influence of social support on engagement in and outcomes of weight management programs.

A278

Laparoscopic Revision of Roux En Y Bypass with Creation of Gastrojejunostomy for Chronic Duodenal Ulcers and Remnant Gastric Outlet Obstruction

Aditya Das *Pittsburgh PA*[1], Bestoun Ahmed *Pittsburgh PA*[1]
University of Pittsburgh Medical Center[1]

We Present the case of a 61-year-old male with history of open retrocolic-retrogastric Roux-en-Y gastric bypass who required revisional surgery for refractory duodenal ulcers and stenosis leading to remanent gastric outlet obstruction. Our patient suffered from perforated duodenal ulcers requiring operative washouts and repairs, and imaging guided drainage procedures that ultimately developed duodenal stenosis and an outlet obstruction of the remnant stomach requiring a gastrostomy tube placement. Persistent morbidity from the gastrostomy tube and abdominal pain encouraged us to pursue more definitive management. A laparoscopic assisted trans-gastric remnant gastroduodenoscopy confirmed duodenal stenosis and biopsy proved benign disease. Our plan was to either perform a remnant gastrectomy or an internal bypass procedure to help relieve his symptoms and remove his gastrostomy tube. With significant adhesions and inflammation of the duodenum there were significant challenges and elevated risk for duodenal stump leak, we opted for an internal drainage procedure. We performed a gastrojejunostomy between the remanent stomach and a loop of the biliopancreatic limb to relieve his gastric outlet obstruction and divert acid away from the duodenum. We successfully rid him of his gastrostomy tube and utilized his previous gastrotomy to create the gastrojejunostomy. Postoperatively he did very well and continues to use a proton pump inhibitor to reduce acid production. At early follow-up he has been tolerating a diet and his pain has significantly improved. Long term follow-up is pending.

A280

Re-Sleeve versus conversion to RYGB for weight regain or insufficient weight loss after Sleeve Gastrectomy

Pauline Aeschbacher *Weston FL*[1], Elad Boaz *Weston FL*[1], Kaylee Sarna *Cleveland OH*[1], Justin Dourado *Weston FL*[1], Peter Rogers *Weston FL*[1], Zoe Garoufalia *Weston FL*[1], Ana Pena *Weston FL*[1], Samuel Szomstein *North Miami Beach FL*[1], Emanuele Lo Menzo *Weston FL*[1], Raul Rosenthal *Weston FL*[1]
Cleveland Clinic Florida[1]

Background:
Patients experiencing weight regain after sleeve gastrectomy often undergo conversion to Roux-en-Y gastric bypass (RYGB). Alternatively, re-sleeve gastrectomy is considered, alongside options like duodenal switch or one-anastomosis gastric bypass. No consensus exists on which technique is the best. We aim to compare short terms outcomes between re-sleeve and conversion to RYGB.

Methods:
Laparoscopic re-sleeve gastrectomy and conversion from sleeve to RYGB for weight regain or inadequate weight loss were identified in the MBSAQIP database (2020- 2021). Propensity score matching considering variables like age, sex, BMI, diabetes, smoking, steroid use, and ASA class, was performed. The primary outcome was reoperation rate at 30 days.

Results:
In 2020-2021, 6,797 patients underwent laparoscopic re-sleeve gastrectomy (n=1,063) or conversion to RYGB (n=5,734). After 1:1 matching (1,061 cases/group), re-sleeve had lower incidence of hypertension (30.5% vs 37.5%, p=0.001). Reoperation rate at 30 days did not differ between both procedures (1.8% vs 2.7%, p=0.144) and there were no significant differences in readmission (6% vs 6.4%, p=0.719), reintervention (2.7% vs 1.7%, p=0.105) and postoperative mortality (0.1% vs 0.1%, p=1). Postoperative complications were similar, except for a higher anastomosis/staple line leak rate after re-sleeve gastrectomy (1.3% vs 0.5%, p=0.038) and increased bowel obstruction after conversion to RYGB (0.2% vs 1.2%, p=0.007).

Conclusion:
Both procedures are safe for patients with weight regain following sleeve gastrectomy. It is important to consider the increased risk of leaks associated with re-sleeve gastrectomy while deciding on this procedure. Long-term data on weight-loss and GERD are missing for determining the most appropriate procedure.

A281

Robotically Assisted Sleeve Conversion to Single Anastomosis Duodeno-Ileostomy (SADI)

Maher El Chaar *Allentown PA*[1], Paul Karam [1]
St Luke's University Hospital and Health[1]

History of Present Illness: Patient is a 25 yo female s/p laparoscopic Sleeve Gastrectomy performed in September 2017. Patient initial weight was 365 lbs (BMI=55). On presentation patient weight was 391 lbs (BMI=59). Patient reported no GERD, dysphagia or regurgiattaion. Work up included UGI and EGD which showed normal postoperative appearance without hiatal hernia, esophagitis or barrett's esophagus. Patient was consented for sleeve conversion to SADI. Video represents our retrogastric technique in dissecting the duodenum in order to perform a Single Anastomosis Duodenal-Ileostomy using a Robotic Approach.

A282

Outcomes of Robotic Assisted (RA) Single Anastomosis Duodeno-Ileal bypass (RA-SADI) compared to RA-Sleeve Gastrectomy (RA-SG) and RA-Roux-en-Y Gastric Bypass (RA-GB)

Maher El Chaar *Allentown PA*[1], Paul Karam [1], Andrew Lin [1], Sarah Samreen *Galveston TX*[2], Luis Alvarado [1]

St Luke's University Health Network[1] University of Texas Medical Branch[2]

Background:

SADI is an endorsed Metabolic and Bariatric Surgery (MBS) procedure. It was suggested that the Robotic Assisted (RA-) approach can improve the outcomes of SADI compared to more common procedures like RA-SG and RA-RYGB. However, the outcomes of RA-SADI compared to those procedures are largely unknown.

Objective:

To compare the 30-day outcomes of RA-SADI to RA-SG and RA-RYGB based on MBSAQIP.

Setting:

Retrospective study using national clinical database.

Methods:

Data was extracted from the MBSAQIP database for 2020-2022 resulting in 513,191 patients. Exclusion criteria included prior foregut or bariatric surgery and lack of 30-day follow-up. The cohort included 634 RA-SADI so we randomly selected 10:1 ratio RA-SG (6,330) and RA-RYGB (6,330) to compare outcomes. Our primary outcomes included Serious Event Occurrence (SEO) a composite score, and intervention at 30-days. Secondary outcomes included hospital length of stay and readmission.

Results:

RA-SADI was associated with higher rates of SEO and intervention at 30-days compared to RA-SG (RR 3.11 and 1.58 respectively, $p<0.05$). However, difference between RA-SADI and RA-RYGB was not significant (RR 1.15 and 0.79 respectively $p>0.05$). RA-SADI was also associated with longer hospital stay compared to RA-SG and RA-RYGB (RR 1.86 and 1.22 respectively, $p<0.05$). Readmission rate was also higher following RA-SADI compared to RA-SG (RR 1.98, $p<0.05$) but not compared to RA-RYGB. RA-SADI also had a longer operative time compared to both RA-SG and RA-RYGB (RR 0.62 and 0.09 respectively, $p<0.05$).

Conclusion:

Postoperative complications following RA-SADI appear to be higher compared to RA-SG but similar to RA-RYGB.

A283

Laparoscopic Reversal of a Vertical Band Gastroplasty with a Gastrogastrostomy.

Pavel Mazirka *Gainesville FL*[1], Kathleen Ehresmann *Gainesville FL*[1], Patrick Underwood *Columbus OH*[1], Jeffrey Friedman *Gainesville FL*[1]
University of Florida - Gainesville, FL[1]

Background:
Vertical band gastroplasty (VBG) was a popular weight loss procedure in the 1980s and 90s but has fallen out of favor due to availability of less invasive restrictive procedures as well as high incidence of complications such as band erosion and migration, staple-line disruption and stenosis [1]. Failed VBG is usually managed with a revision to Roux-en-Y Gastric Bypass (RNYGB) or reversal with a gastrogastrostomy [2,3]. We present a case of a 71-year-old man who developed symptomatic stenosis after undergoing VBG over forty years ago who underwent a laparoscopic reversal with a gastrogastrostomy.

Methods:
A 71-year-old man with a remote history of vertical band gastroplasty presented with progressively worsening symptoms of dysphagia, solid food intolerance, reflux, and weight loss. A work-up with upper endoscopy revealed a stricture at his band site, that could not be traversed, or balloon dilated. A large pouch with gastric bezoar, and no ulcers were also noted during endoscopy. The patient underwent a laparoscopic revision with extensive lysis of adhesions, gastrogastrostomy and intraoperative endoscopy.

Results:
The patient tolerated the procedure well and had an uncomplicated recovery. He is now one year removed from surgery, with complete resolution of dysphagia. The patient is tolerating a regular diet, gaining weight, and has resumed normal activities of daily living.

Conclusion:
A strictured vertical band gastroplasty can be safely managed with a laparoscopic gastrogastrostomy.

A284

Bleeding After Sleeve Gastrectomy: Does Staple Line Reinforcement Make a Difference?

Dessislava Stefanova *New York NY*[1], Vanessa Buie *New York NY*[1], Gustavo Fernandez-Ranvier *New York NY*[1], Subhash Kini *New York NY*[1], Catherine Tsai *New York NY*[1], Daniel Herron *New York NY*[1]

Icahn School of Medicine at Mount Sinai[1]

Introduction:

Bleeding from surgical staple lines is an uncommon but potentially serious complication after bariatric surgery. Staple line reinforcement has been proposed as a method of reducing postoperative bleeding. We reviewed all patients undergoing robotic sleeve gastrectomy (RSG) and laparoscopic sleeve gastrectomy (LSG) at our institution to determine whether staple line reinforcement had a meaningful impact on bleeding rate.

Methods:

All patients undergoing RSG and LSG from 2017-2020 were reviewed. Patient demographics, comorbidities, use of staple line reinforcement, and postoperative complications were analyzed. We defined significant postoperative bleeding as a hemoglobin drop greater than two points, need for transfusion, or reoperation for bleeding.

Results:

A total of 1123 patients were included in the study, with 124 (11%) in the RSG group and 999 (89%) in the LSG group. Of the patients who underwent LSG, 800 (80%) patients had staple line reinforcement utilized, while 199 (20%) did not. No patients in the RSG group had reinforcement. Thirteen (1.2%) patients had significant postoperative bleeding. Patients with staple line reinforcement had fewer bleeding events (0.5%, n=4) compared to patients without reinforcement (2.8%, n=9), $p<0.005$.

Conclusion:

The use of staple line reinforcement is associated with lower postoperative bleeding.

A285

Laparoscopic Jejuno-jejunostomy Reconstruction for Intussusception after Roux-en-Y Gastric Bypass

Karl Hage *Rochester MN*[1], Shahrukh Chaudhry *El Paso TX*[2], Omar Ghanem *Rochester MN*[1], Benjamin Clapp *El Paso TX*[2]
Mayo Clinic Rochester[1] Texas Tech University El Paso[2]

We present the case of a 45-year-old female with a known history of Roux-en-Y gastric bypass in 2019 who underwent revisional surgery in 2023 for a perforated marginal ulcer. She presented with a 24-hour history of intense paroxysmal abdominal pain and emesis, with a CT scan showing a target sign and small bowel dilatation, suggesting jejuno-jejunostomy intussusception which prompted us to offer revisional reconstruction of the JJ. We started the procedure by identifying the ileocecal valve and running the limbs proximally towards the JJ. We identified the intussusception just distal to the JJ. Since we were not able to reduce the intussusception laparoscopically, we proceeded to transect the common channel distal to the intussusception. We then transected the Roux Limb and Biliopancreatic limb to liberate the specimen for removal. At this point, we proceeded with the JJ reconstruction by performing a side to side stapled anastomosis between the transected distal tip of the roux limb and the common channel. Then, we performed the second anastomosis between the biliopancreatic limb and the roux limb-common channel complex to restablish intestinal continuity. The patient did really well postoperatively and was discharged on POD 4. At her next follow-up, she reported complete resolution of her abdominal pain, no complications, and regular bowel movements.

A287

Abstract for Case Report on Perforated Duodenal Ulcer Post Roux-en-Y Gastric Bypass with pneumoperitoneum

Amber Chen-Goodspeed *Flushing NY*[1], Nicholas Jonas *Flushing NY*[2], Steve Merola *ARDSLEY NY*[3], Jason Sample *New York NY*[3]

New York Presbyterian - Queens[1] New York-Presbyterian/Queens[2] Weill Cornell Medical College[3]

Introduction

Perforated duodenal ulcers post-Roux-en-Y gastric bypass (RYGB) are extremely rare, with fewer than 30 documented cases. This abstract presents the case of a 67-year-old female, 24 years post-RYGB, with a perforated duodenal ulcer and pneumoperitoneum.

Case

The patient had a complex medical history, including a recent ankle injury and NSAID use, and presented with diffuse abdominal pain, fever, hypotension, and tachycardia. The patient's labs were significant for leukopenia and elevated lipase. CT imaging revealed pneumoperitoneum, prompting immediate surgery (Figure 1&2). A 0.5 cm duodenal perforation was repaired with omental plication, and the patient was managed postoperatively for complications, including acute respiratory distress syndrome, bacteremia, and an intra-abdominal abscess (Figure 3&4). Long-term management involved prophylactic H. pylori treatment, long-term antibiotics, proton pump inhibitors (PPIs), and percutaneous drainage of the abscess.

Discussion

Duodenal perforation post-Roux-en-Y is often challenging to diagnose due to the absence of pneumoperitoneum on CT, seen in only 5 published cases. Due to the rarity of this complication, there is not strong support for a standard treatment, however, omental patch plication is common. The utility of completion gastrectomy for ulcer prevention is debated, considering the associated risks of dysmotility, bacterial overgrowth, and recurrent ulceration of the duodenal stump. The theories regarding the etiology of these ulcers are continued acid production in the remnant stomach and/or Helicobacter pylori infection. The role of NSAIDs in these duodenal perforations remains unclear. Lifelong PPI use and monitoring for recurrent ulcers constitute long-term patient management.

A289

Assessing Acute Kidney Injury Risks Following Bariatric Surgery: A 10-Year Update

Kamal Abi Mosleh *Rochester MN*[1], Lauren Lu [1], Salame Marita *Rochester MN*[1], Noura Jawhar *Rochester MN*[1], Juraj Sprung [1], Toby Weingarten *Rochester MN*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic, Rochester[1]

Introduction:
Despite the overall safety of metabolic and bariatric surgery (MBS), the potential for postoperative complications such as acute kidney injury (AKI) remains a critical concern. We aim to investigate the incidence of AKI after MBS and the associated risk factors.

Methods:
A retrospective review of patients undergoing primary MBS between May 2008 and October 2022 was performed. Determination of AKI was based on postoperative increase in serum creatinine (sCr) by 0.3mg/dL within 72 hours. A conditional logistic regression analysis was performed to identify AKI risk factors.

Results:
Among 1697 patients, the incidence of AKI was 3%(n=51). The occurrence of AKI was significantly more likely to occur in patients who had preoperative insulin-requiring diabetes (25.5%vs.15.1%,p=0.04), hypertension (52.9%vs.39.4%,p=0.006) and renal insufficiency (39%vs.4%,p=0.038). Patients with AKI had significantly longer procedure durations (172.5±71.2 mins) compared to those who did not (150±56.2 mins)(p=0.03). The odds of AKI were higher in males (aOR=3.63, 95%CI[1.98,6.63]) and patients on therapeutic anticoagulation (aOR=2.41, 95%CI[1.21,5.79]). There was no significant difference in anesthesia medications used and dosages between groups. Among those with AKI, 7 patients (13.7%) required postoperative dialysis, and 3 (5.9%) progressed to chronic kidney disease, with all 3 eventually receiving transplant.

Conclusion:
AKI is a rare but serious complication following MBS that occurs in approximately 3% of cases. AKI incidence is higher in male patients, those with hypertension, insulin-requiring diabetes, renal insufficiency, and longer procedure durations. Heightened awareness of the identified risk factors should help guide patient selection, and additional efforts should be directed towards refining postoperative follow-up.

A290

The Use of Aspirin Chemoprophylaxis after Sleeve Gastrectomy: More Harm than Good?

Katharine Playter *Shrewsbury MA*[1], Robert Guber *Worcester MA*[1], Duong Doan *Worcester MA*[1], Bradley Colarusso *Worcester MA*[1], Obinnaya Okereke *Shrewsbury MA*[1], Michelle Wu *Worcester MA*[1], Richard Perugini *Worcester MA*[1], Nicole Cherng *Worcester MA*[1]
UMass Chan Medical School[1]

Thromboembolic events after sleeve gastrectomy (SG) are rare but morbid complications. The use of aspirin for chemoprophylaxis and its efficacy compared to low molecular weight heparin (LMWH) has been explored in other surgical populations. Here we studied the use of aspirin in low-risk patients after SG and its relationship to venous thromboembolism (VTE).

This is a retrospective study assessing VTE following SG from 2021 to 2023. Caprini score was used to risk stratify patients. High-risk patients received extended chemoprophylaxis with LMWH (40 mg SC, 7-14 days). Sixteen months into the two-year period, aspirin (325 mg PO, 30 days) was initiated for low-risk patients postoperatively (phase 2). VTE events were analyzed using CUSUM, a statistical tool used in quality control to detect small deviations in a process.

Prior to the initiation of aspirin for low-risk patients, 399 SG were performed, and 82 patients (20.6%) received LMWH. There was one MVT in a low-risk patient. During phase 2, 261 SG were performed, 57 (21.8%) received LMWH while 185 (70.8%) received aspirin alone. There were two MVT events in low-risk patients. CUSUM analysis demonstrated an initial reduction in VTE event rate with the administration of LMWH for high-risk patients and an increase in MVT event rate with the addition of aspirin for low-risk patients (Figure 1).

The use of aspirin in patients at low risk for VTE following SG does not offer any benefit with regards to prevention. Furthermore, there may be an association between aspirin and the development of MVT.

A291

The Contraindications of the Past are the Indications of the Future: Sleeve Gastrectomy as a Bridge to Heart Transplantation for Severe Cardiovascular Disease

Jack Sample *Rochester MN*[1], Fazal Khan *Rochester MN*[1], Ahmed Nasser *Rochester MN*[1], Bergljot Karlsdottir *Rochester MN*[1], Abu Dayyeh [1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic Rochester[1]

Introduction:
In additional to reducing obesity-related cardiovascular disease risk factors, bariatric surgery has been recognized as a method for improving cardiac function in patients with underlying heart disease. We present a case of laparoscopic sleeve gastrectomy (LSG) performed as a bridge to heart transplantation in a patient with obesity, heart failure, refractory recurrent left ventricular tachycardia, and a history of aortic valve replacement requiring anticoagulation.

Methods:
To safely proceed with heart transplantation, a 64-year-old male with a body mass index of 39 kg/m^2 and a complex cardiovascular history was referred to our bariatric surgery practice for evaluation. After failed medical therapy, elective LSG was scheduled. Due to rapid escalation of underlying cardiac disease, the patient was admitted to the cardiac intensive care and medically optimized prior to bariatric surgery. A multidisciplinary team approach was employed which included preoperative placement of an intra-aortic balloon pump (IABP) and heparinization the day before surgery.

Results:
Following abridged medical optimization and IABP placement, LSG was expeditiously performed under meticulous anesthesia care and the patient was followed by multidisciplinary teams in the postoperative period. The patient tolerated the procedure without complication. Therapeutic anticoagulation was resumed on the first postoperative day and continued at discharge. The patient was then eligible for transplant.

Conclusion:
Although considered a contraindication to weight loss surgery, severe cardiovascular disease may necessitate bariatric surgery as a bridge to curative cardiac therapy. IABP and multidisciplinary support can help facilitate LSG in medically complex patients with obesity awaiting transplant.

A292

An Epidemiologic Analysis of Incidence of SBO after Bariatric Surgery

Alisa Khomutova *Saint James NY*[1], Ila Sethi *Stonybrook NY*[2], Isabelle Van Roy *Port Jefferson NY*[1], Jie Yang *STONY BROOK NY*[3], Edmund Lee *Stony Brook NY*[4], Artem Shmelev *Stony Brook NY*[4], Amy Rosenbluth *Stony Brook NY*[5], Konstantinos Spaniolas *Stony Brook NY*[6]
Resident[1] Medical Student[2] Biostatistician[3] Assistant Professor[4] Associate Professor[5] Chair[6]

INTRODUCTION

Although numerous studies have examined small bowel obstruction (SBO) post-bariatric surgery, they are limited by single center design. There is limited broad epidemiologic data on incidence of SBO after bariatric surgery. The aim of this study was to comprehensively evaluate the cumulative incidence of SBO.

METHODS

The SPARCS database was used to identify patients with previous Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy (SG) who required surgery for SBO at the time of first diagnosis. We analyzed the incidence of and prognostic indicators of surgery for SBO. Multivariable Fine-Gray models were utilized to examine the association between each risk factor and subsequent SBO surgery where death was treated as a competing risk event.

RESULTS

A total of 38,582 RYGB patients and 91,982 SG patients were included with median follow-up time of 1,492 and 1,074 days, respectively. The cumulative incidence of surgery for SBO for RYGB was 0.46 % (0.39%-0.53%), 1% (0.89-1.12%), 1.89% (1.71-2.08%) at 1, 3 and 6 years, respectively. The cumulative incidence of surgery for SBO for SG was 0.13% (0.11%-0.16%), 0.55% (0.49%-0.61%), and 2.02% (1.87%-2.18%) at 1, 3 and 6 years, respectively.
No significant difference existed in risk of SBO between RYGB and SG (p=0.72). Other prognostic factors for SBO included female gender, chronic pulmonary disease, phlebitis, black ethnicity and Medicare/Medicaid insurance.

CONCLUSION

Bariatric surgery patients have a low risk of needing subsequent surgery for SBO, with comparable rates between RYGB and SG, indicating minimal added risk with RYGB compared to other intra-abdominal procedures.

A294

Comparison of Operating Room Costs and Clinical Outcomes Between Three Linear Endoscopic Staplers for Laparoscopic Sleeve Gastrectomy

Moamena El-Matbouly *Hawthorne NJ*[1], Scott Mu *Newark NJ*[2], Alan Saber *Newark NJ*[1]
Newark Beth Israel Medical Center[1] Rutgers New Jersey Medical School[2]

Introduction:
Laparoscopic staplers play a critical role in bariatric surgery; however, their high costs can significantly impact the overall procedure cost. We aimed to compare the clinical outcomes and operating room costs of 3 different commercially available staplers.

Methods:
We conducted a retrospective single-institution analysis of all primary laparoscopic sleeve gastrectomy operations performed from January 2020 to December 2023. Operating room costs were calculated for each operating by summing the costs of the stapler body, stapler reloads, staple line reinforcements, clip appliers, and a fixed supply cost for other materials. We used multivariable linear regression to adjust for preoperative characteristics and calculated differences in operating room costs between the 3 staplers.

Results:
325 cases were performed with stapler A, 114 with stapler B, and 108 with stapler C, with no significant differences in preoperative characteristics. Stapler B was associated with a total operating room cost difference of -$795 (95% CI: -878 to -713) compared to stapler A, and stapler C was associated with a cost difference of -$66 (95% CI: -149 to 17) compared to stapler A. There were no statistically significant differences in the rates of reoperation or readmission, and no clinically meaningful differences in the length of stay or %EWL at 1 month.

Conclusion:
Stapler B was associated with significant cost savings compared to staplers A and C, with similar safety and efficacy. Surgeons should consider adopting cost-reduction strategies such as using reusable clip appliers, judicious usage of staple line reinforcement material, and choosing less costly stapler devices.

A295

Beware the Barbs! A Rare Case of Early Small Bowel Obstruction Due to Barbed Suture After Roux-en-Y Gastric Bypass

Maha Mourad *Omaha NE*[1], Bedir Akbar *Wyandotte MI*[2], Jack Avedikian *Wyandotte MI*[2], Julie Kim *Omaha NE*[1], Ivy Haskins *Omaha NE*[1], Vishal Kothari *Omaha NE*[1]
University of Nebraska Medical Center[1] Henry Ford Wyandotte Hospital[2]

Our patient is a 43-year-old female who came to our attention following a successful laparoscopic sleeve gastrectomy, achieving notable weight loss from an initial preoperative weight of 309 lbs (BMI 47) to a postoperative low of 204 lbs (BMI 31). Eight years following the index surgery, she presented with persistent gastroesophageal reflux and some weight regain (252 lbs, BMI 38). Subsequently, a robot-assisted laparoscopic Roux-en-Y gastric bypass was performed.

Despite a generally smooth recovery, the patient experienced abdominal pain, nausea, and vomiting on postoperative day 5. Imaging revealed a partial small bowel obstruction at the level of the jejunojejunostomy. A diagnostic laparoscopy identified an obstruction of the distal Roux limb due to an adhesion to a barbed suture tail at the jejunojejunostomy mesenteric defect. The adhesion was successfully released, the suture tail was cut, and no further interventions were necessary. Post-operatively, she did well without complications, progressing in the advancement of her diet per our institution's protocol.

This case demonstrates the potential risks associated with the use of barbed sutures. Despite the absence of an official tail length recommendation from the manufacturer, several documented cases in the literature highlight the occurrence of small bowel obstructions attributed to barbed suture tails. This case, along with others, underscores the importance of minimizing barbed suture tail length in gastrointestinal and bariatric surgery to mitigate the risk of such obstructions.

A297

Sleeve Gastrectomy to SADI-S in Patient with LVAD Complicated by Intraoperative Bleeding

Bergljot Karlsdottir *Rochester MN*[1], Karl Hage *Rochester MN*[1], Noura Jawhar *Rochester MN*[1], Kamal Abi Mosleh *Rochester MN*[1], Jack Sample *Rochester MN*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic[1]

We describe the case of a 50-year-old male patient with a known history of heart failure on LVAD support awaiting heart transplant. The patient underwent a sleeve gastrectomy and then experienced weight recurrence as he presented with a BMI of 48 kg/m2. Given that the aim was to obtain a BMI < 35 for the patient to be considered eligible for heart transplantation, he was started on weight loss medication and referred for revisional metabolic and bariatric surgery. The choice to proceed with a conversion to a single anastomosis duodeno-ileostomy was discussed with the patient. After obtaining consent, we proceeded with optimization of his anticoagulation status prior to surgery. Coumadin was stopped 5 days prior to surgery and the patient was admitted once his INR was < 2. The day of the surgery, the patient had an INR of 1.7. During the procedure, we report the occurrence of a pancreatic bleed estimated to be 300-400 cc. Peri-operative INR was 2. The bleeding was eventually controlled with tangential clips and an extended period of gauze compression. The conversion to the SADI-S itself was without any complication. The patient did well after surgery. His hemoglobin dropped to 11 from an initial value of 15 but quickly stabilized. The patient was discharged on POD 6 with an INR of 2.5 without the use of any anticoagulation whatsoever since admission. He was followed as an outpatient on Warfarin. In conclusion, bleeding might be expected in these cases, but all 'medical' bleeding eventually stops.

A299

The Iron Butterfly Effect: Hemochromatosis and Bariatric Surgery

Chad Richards *Dayton OH*[1], Kyle Paul *Dayton OH*[1]
Kettering Health[1]

Hereditary hemochromatosis is a genetic disorder that is divided into 4 types. The most common is type I, an HFE gene mutation resulting in cysteine-to-tyrosine substitution at gene 282 (C282Y) or less frequently an aspartate-to-histidine substitution at gene 63 (H63D). This condition results in a dysfunction of hepcidin, a protein that inhibits the absorption of excess iron. The excess iron is then stored in various organs especially the liver, pancreas and heart. This can lead to problems such as cirrhosis, diabetes, and heart failure, it can even affect fertility. Hereditary hemochromatosis is more common in men of Northern European descent but will often manifest in post-menopausal women. Approximately 0.5 percent of the population carries the autosomal recessive HFE C282Y variant. The treatment for hemochromatosis is serial phlebotomy along with monitoring transferrin saturation and ferritin levels every 4 to 12 weeks. Cases have been documented of patients undergoing bariatric surgery for weight loss with hereditary hemochromatosis. In many of these instances the patients who underwent gastric bypass were able to either decrease their frequency of serial phlebotomy or stop it altogether. In this review, we discuss the documented cases of patients who underwent various types of bariatric surgery, their clinical course with regards to hereditary hemochromatosis and the unexpected butterfly effect they experienced of being able to stop frequently cumbersome and costly therapeutic treatments.

A301

Pain after Bypass! Handling an Internal Hernia found during Laparoscopic Cholecystectomy.

Nader Estfanous *Cleveland OH*[1], Rickesha Wilson *Cleveland OH*[1]
Cleveland Clinic Foundation[1]

A 61 year-old woman, who had undergone a Roux-en-y gastric bypass 8 years prior, presented with 4 years of intermittent right upper quadrant pain. She had a past medical history of hypertension, hyperlipidemia, and a past surgical history of a transvaginal hysterectomy, and the Roux-en-y gastric bypass. She had several ED visits for this. Her work up – which included an upper GI, ultrasound, CT abdomen and pelvis, and HIDA scans – was normal except an ultrasound showing mild gallbladder wall thickening with sludge. The decision was made to do an elective laparoscopic cholecystectomy, and ports were placed in the standard fashion. The gallbladder was inflamed, and a laparoscopic cholecystectomy was performed without incident. Chylous ascites, however, was also noted throughout the abdomen, which prompted evaluation of the bypass anatomy. The small intestine was run from the Roux limb to the JJ anastomosis as well as from the terminal ileum to the JJ. The JJ was found to be internally herniated through Pseudo-Petersen's space. This was reduced and the space was closed. An upper endoscopy was performed revealing a normal GE junction and GJ anastomosis without signs of esophagitis or ulcers. The patient tolerated the procedure well, went home the same day, and was symptom free at the postoperative visit. In conclusion, it is important for the general surgeon to understand gastric bypass anatomy so that they can appropriately address an incidentally found internal hernia for the treatment of pain in patients with a prior gastric bypass.

A302

1- and 2-year outcomes and predictors of weight loss after Roux-en-Y gastric bypass revision

Jayson Marwaha *Washington DC*[1], Grace Bloomfield *Washington DC*[1], Miskir Belayneh *Silver Spring MD*[1], Narica Clarke *washington dc DC*[1], Chaitanya Vadlamudi *washington DC*[1], Yewande Alimi *Washington DC*[1], Ivanesa Pardo *Bethesda MD*[1]
Georgetown University Medical Center[1]

Introduction:
Roux-en-Y gastric bypass (RYGB) revision for weight loss is a commonly-performed procedure, yet data is limited on outcomes and their predictors. The purpose of this study is to characterize the long-term outcomes of patients after RYGB revision and identify predictors of post-revision outcomes.

Methods:
Retrospective cohort study of patients who underwent RYGB revision for obesity across four hospitals from 01/2016-11/2023. Patient data was collected for 2 years following RYGB revision. Predictors of below-average %EWL at 1- and 2-years following revision were identified using multivariate logistic regression models adjusting for comorbidities and demographics.

Results:
89 patients undergoing RYGB revision were included. Mean %EWL at 1- and 2-years following revision were 36.0% and 30.1%, respectively. On univariate analysis, patients with BMI>45 prior to index RYGB were more likely to experience below-average %EWL 1-year post-revision (OR 1.06, 95% CI 1.01-1.12, p=0.048). On multivariate analysis, notable insignificant predictors of below-average %EWL 1- and 2-years after revision included: alimentary limb length, time between index RYGB and revision, weight regain after index RYGB, and simultaneous revision of both GJ and JJ anastomoses.

Conclusions:
The typical expected %EWL for RYGB revision is less than the 50% EWL benchmark of success for index bariatric operations. Several pre-revision patient factors are interestingly not predictors of post-revision %EWL, suggesting that these factors should not play a large role when considering RYGB revision.

A306

Utility of Pre-operative Testing for Patients with GERD Undergoing Bariatric Surgery

David Lin *Philadelphia PA*[1], Vikram Eddy *Philadelphia PA*[1], Sydney Kim *Philadelphia PA*[2], Jingwei Wu *Philadelphia PA*[3], Rohit Soans *Philadelphia PA*[1]
Temple University Health System[1] Lewis Katz School of Medicine at Temple[2] College of Public Health at Temple[3]

Introduction

Sleeve gastrectomy and Roux-en-Y gastric bypass (RYGB) remain the most common bariatric procedures performed in the United States. However, patients undergoing sleeve gastrectomy are at increased risk of developing or exacerbating gastroesophageal reflux disease (GERD) postoperatively. We analyzed the effect of bariatric surgery on patients who were at elevated risk of GERD.

Methods

Bariatric surgery patients at Temple University Hospital from 2018 to 2023 were reviewed. 92 completed both an initial and 1-year post-operative GERD Impact Scale (GIS) questionnaire. We analyzed their perioperative testing and procedures, including upper GI fluoroscopy, high-resolution esophageal manometry, pH impedance, EGD, and presence of intra-operative hiatal hernia. The impact of the type of surgery on the change in their GIS scores was analyzed using ANOVA testing.

Results

50 patients underwent RYGB and 42 underwent sleeve gastrectomy. RYGB patients had significantly improved GIS scores compared to sleeve patients (-4.00 vs +0.88, $p<0.005$). After separately accounting for presence of pre-operative reflux and dysmotility on imaging and manometry, and intraoperative hiatal hernia repair with two-way ANOVA, the difference was still significant ($p = 0.016, 0.010, 0.031, 0.003$ respectively). However, no significance was found after accounting for Demeester score ($p = .111$).

Conclusions

Our results validate the difference in GERD symptom improvement between patients undergoing sleeve gastrectomy and RYGB. Accounting for results of manometry testing and hiatal hernia repair does not significantly impact this difference, suggesting that these components may be unnecessary. Further work is needed to assess the ideal preoperative algorithm for identifying severe postoperative reflux complications.

A307

Revisional surgery following endoscopic sleeve gastroplasty (ESG)

Heykel Mebarek *Algiers* [1], Ludovic Marx *Strasbourg* [2], Sergio Carandina *Toulon* [3], Patrick Noel *Aubagne* [4], Thierry Manos [4], Hind Toumi [1], Marius Nedelcu *Toulon* [4]

Al Azhar Hospital, Algiers[1] ELSAN Clinique Orangerie, Strasbourg[2] ELSAN Clinique St Michel, Toulon[3] ELSAN, Clinique Bouchard, Marseille[4]

INTRODUCTION

Less invasive endoscopic bariatric procedures are under development for the management of obesity disease and the data regarding their impact on future bariatric surgery are limited in the literature. The purpose of our study was to assess the outcome of revisional bariatric surgery following endoscopic sleeve gastroplasty (ESG)

METHODS:

From January 2019-Mai 2022, all patients who underwent revisional surgery following ESG were retrospectively reviewed. Data on patient characteristics, case history, intraoperative findings, technique, and complications were reviewed.

RESULTS:

36 patients underwent different bariatric procedures: 31 women (86.1 %) with a mean age of 37.2 years(range:24-61) and mean Body Mass Index(BMI) of 36.7+/-4.6kg/m2. The preoperative upper endoscopy analyzed for 28 patients found: a complete undo of plication in 13 cases (46.4%), some synechiaes with the stich in place in 11 cases (39.2 %) and a continent plication in 4 cases (14.3 %). They underwent different bariatric procedures: 28 cases of LSG (77.8 %), 7 cases of RYGBP (19.4 %) and one case of revisional RYGBP. Average time after ESG was 14.4 months (range 5-36). Different intraoperative additional techniques were used: fluoroscopic control in 20 cases, intraoperative endoscopy in 4 cases or opening of the greater curvature in 3 cases. There were 2 intraoperative incidents and one postoperative complication (one bleeding).

CONCLUSIONS:

In our experience, the previous ESG has not induced any additional specific complications following bariatric revisional surgery. The revisional bariatric surgery following ESG is safe, but several technical points are important, and the team should be familiar with different additional tools. The preoperative endoscopy is mandatory, but the endoscopic removal of anchors is not necessary.

A308

Doxylamine Succinate and Pyridoxine Hydrochloride in Postoperative Bariatric Females Reduces Post-operative Nausea and Vomiting

Peter Ng *Raleigh NC*[1], Francesca Coppola *Raleigh NC*[1], Rachel Diaz [1], Steven Skovran [1], Sherwyn Tenia [1], Paloma Hauser [1], Afton Carducci *Raleigh NC*[1], Tricia Burns *Raleigh NC*[1], Erica McKearney *Raleigh NC*[1], Hannah Garehan *Raleigh NC*[1], Lauren Massey *Raleigh NC*[1], Lindsey Sharp *Raleigh NC*[1], Dustin Bermudez *Raleigh NC*[1], Linda Youngwirth *Raleigh NC*[1], Tramaine Young *Raleigh NC*[2]

UNC Rex[1] State of North Carolina, Pharmacy[2]

Background:

Doxylamine-pyridoxine is effective in reducing nausea and vomiting in pregnant females. However, its use in other patient populations has not been studied and there are no current recommendations for non-pregnant females receiving doxylamine-pyridoxine post-bariatric surgery during admission.

Objective:

To evaluate the effectiveness of doxylamine-pyridoxine in resolving postoperative nausea and vomiting (PONV) in non-pregnant females post-bariatric surgery.

Setting:

Large community hospital

Methods:

We identified female patients who underwent bariatric surgery between November 2021 and November 2022 (n=222). Patient characteristics, procedure type, antiemetics used, readmission rates, number of calls or messages after hours and antiemetic refills were analyzed to evaluate for the evidence of PONV.

Results:

The prevalence of PONV in the control group was 60/111 (54.1%) compared to 40/111 (36%) in patients who did receive doxylamine-pyridoxine ($p<.001$). Readmissions for nausea and vomiting within 30 days postoperatively occurred in 8/111 (7.2%) vs 2/111 (1.8%) (OR 0.24, 95% CI 0.05-1.14, $p=.07$) in the control group vs treatment group respectively. There was also a significant reduction in the mean number of calls or messages after hours in the control group compared to those in the treatment group ($\beta=-1.30$, 95% CI -1.73-0.42), $p<.001$). Required antiemetic refills within 30 days postoperatively occurred in 28/111 (25.2%) vs 18/111 (16.2%) (OR 0.57, 95% CI 0.30-1.11, $p=.1$) in the control group vs treatment group respectively.

Conclusions:

Doxylamine-pyridoxine reduced PONV during admission for non-pregnant females post-bariatric surgery, shown by a significant reduction in the number of calls or MyChart messages for nausea/vomiting after hours.

A309

Comparative Analysis of Venous Thromboembolism Risk Calculators in a Single-Center Bariatric Surgery Population

Thuy Duong Doan *Worcester MA*[1], Robert Guber *Worcester MA*[2], Katharine Playter *Shrewsbury MA*[2], Obinnaya Okereke *Shrewsbury MA*[2], Bradley Colarusso *Worcester MA*[2], Michelle Wu *Worcester MA*[2], Lyle Suh *Worcester MA*[2], Nicole Cherng *Worcester MA*[3], Richard Perugini *Worcester MA*[3]

UMASS Chan Medical School[1] University of Massachusetts Chan Medical[2] UMASS Memorial Medical Center[3]

Venous thromboembolism (VTE) is the leading preventable cause of mortality following bariatric surgery. Previous studies have investigated different risk calculators to predict VTE. However, there is no clear consensus, and few studies have described clinical application of these calculators.

This is a retrospective cohort study of all patients undergoing primary sleeve gastrectomy (SG) at a high volume center between January 2020-December 2022. A standardized algorithm for extended chemoprophylaxis post-discharge based on the Caprini Score (Cap) was utilized. Three risk assessment calculators: Cap, Michigan Bariatric Surgery Collaborative Risk model (MBSCR) and the Cleveland Clinic Post-discharge Venous Thromboembolism after Bariatric Surgery (CC) were compared. Sensitivity, specificity, positive predictive value, negative predictive value, and provider compliance with recommended extended chemoprophylaxis were determined.

A total of 660 patients underwent primary SG, of whom 3 developed a VTE (0.45%). The Cap and the CC calculators identified 1 of 3 of these patients as high risk (sensitivity 0.33) while the MBSCR did not identify any (sensitivity 0). Specificity of the MBSCR was highest at 0.93, followed by CC and Cap. Based on the risk models, 61.5% (Cap), 23.4% (CC) and 6.67% (MBSCR) patients required prolonged VTE prophylaxis following admission. Provider compliance with the risk algorithms varied from 56.1% (Cap), 91.3% (CC), and 79% (MBSCR).

Our study demonstrated a low rate of VTE events following SG. Though all predictors had poor sensitivity and varying specificity, the CC calculator allows for the most optimal clinical application of extended chemoprophylaxis.

A312

Short-Term Safety Evaluation of Outpatient SADI-S Procedures: A Multicenter Analysis

Daniel Cottam *Salt Lake City UT*[1], Tatum Cottam *Salt Lake City UT*[1], Riley Ward *Turabo Gardens Caguas PR*[1], Amit Surve *South Salt Lake City UT*[1], Walter Medlin *Salt Lake City UT*[1], Bo Neichoy *Amarillo TX*[2], Blue Schneiderjan [2], Brian Mooers [1]
Bariatric Medicine Institute[1] Panhandle Weight Loss Center[2]

Background
Single-anastomosis duodeno-ileal bypass with sleeve gastrectomy (SADI-S), an effective weight-loss surgery for morbid obesity, has established safety profiles in in-patient hospital settings. However, its safety in outpatient settings with same-day discharge remains inadequately explored.

Objective
To assess the short-term safety of primary SADI-S procedures conducted in outpatient settings by evaluating 30-day postoperative outcomes.

Methods
A retrospective analysis was performed using data from a prospectively maintained database, encompassing 305 instances of outpatient primary SADI-S procedures conducted between May 2020 and January 2023. These procedures were carried out by five surgeons at two distinct U.S. surgical centers. Notably, no standardized surgical techniques or enhanced recovery after surgery protocols were implemented across these centers.

Results
A total of 305 patients were included in the final analysis. The mean preoperative BMI was 46 ± 6.6 kg/m2. Preoperative hypertension (24.9%), obstructive sleep apnea (27.5%), type 2 diabetes (17%), hyperlipidemia (19%), and gastroesophageal reflux disease (18.3%) were observed in the patient cohort. Intraoperative complications occurred in 0.3% of cases, with no instances of open conversion. The mean skin-to-skin operative time was 61.2 ± 18.9 minutes, and the average length of stay was 5 hours and 30 minutes ± 1 hour and 10 minutes. We observed a 3.9% rate of complications, 0.9% for both readmissions and reoperations within the initial 30 days, alongside a 1.3% emergency room visit rate and a 1.6% reintervention rate. No deaths were recorded.

Conclusion
In carefully selected patients, outpatient single-anastomosis duodeno-ileal bypass with sleeve gastrectomy (SADI-S) demonstrated favorable short-term safety outcomes.

A313

The Role of Postoperative Weight Loss in Remission of Type 2 Diabetes Following Duodenal Switch: A Multi-Center Cohort Study

Karl Hage *Rochester MN*[1], Andre Teixeira *Orlando FL*[2], Amit Surve *South Salt Lake City UT*[3], Romulo Lind *Orlando FL*[2], Jack Sample *Rochester MN*[1], Noura Jawhar *Rochester MN*[1], Muhammad Ghanem *Orlando FL*[2], Walter Medlin *Salt Lake City UT*[3], Michael Kendrick *Rochester MN*[1], Daniel Cottam *Salt Lake City UT*[3], Omar Ghanem *Rochester MN*[1]
Mayo Clinic Rochester[1] Orlando Regional Medical Center[2] Bariatric Medicine Institute[3]

Introduction:
The duodenal switch (DS) is an effective bariatric procedure for managing type 2 diabetes (T2D) in patients with obesity. Despite established preoperative predictors of T2D remission, the relationship between postoperative weight loss and T2D outcomes remains inadequately understood. This study aimed to investigate the correlation between postoperative weight loss and the remission of T2D following DS.

Methods:
A retrospective chart review was conducted across two centers for patients undergoing biliopancreatic diversion with DS (BPD-DS) or single-anastomosis duodeno-ileostomy with sleeve gastrectomy (SADI-S) between 2008-2023. Data mainly encompassed patient demographics, weight-loss outcomes, and T2D remission. A multivariate logistic regression was performed to identify predictors of T2D remission. Subsequently, the cohort was stratified into quartiles based on percent total weight loss (%TWL) to facilitate comparisons of T2D remission rates.

Results:
A total of 457 patients (61.5% BPD-DS 38.5% SADI-S; age 45.5±10.0 years, BMI 54.3± 8.4 kg/m^2) with a follow-up of 1.9±2.4 years were included. Overall T2D remission rate was 79.8% in our cohort, without any procedural differences (BPD-DS 79.4% SADI-S 81.3%; *p=0.74*). Statistical analysis revealed that a higher %TWL was a significant predictor of increased T2D remission rates, even after adjusting for variables such as age, sex, and BMI (p=0.001). Remission rates exhibited a proportional increase across %TWL quartiles [Q1: 66.2%, Q2: 83.9%, Q3: 87.0%, Q4: 88.9%] (*p=0.004*).

Conclusion:
Higher %TWL emerged as a significant predictor of increased T2D remission, demonstrating a proportional increase across quartiles. Further research is warranted to explore the long-term effects and potential patient-specific factors influencing these outcomes.

A314

Pilot Study Examining Genetic & Microbiome Weight Loss Predictors 12 months Post Sleeve Gastrectomy

Nova Szoka *Morgantown WV*[1], Shaneeta Johnson [2], Digbi Health *MOUNTAIN VIEW CA*[3], Inti Pedroso *California CA*[3], Daniel Almonacid *Mountain View CA*[3], Shreyas Kumbhare *Mountain View* [3], Lawrence Tabone *Morgantown WV*[1]
West Virginia University[1] Morehouse School of Medicine[2] Digbi Health[3]

Background
Genomic and metabolomic strategies are increasingly guiding obesity treatment. Studies have implicated the association of single nucleotide polymorphisms (SNPs) with obesity and traits such as food preference, body fat distribution, macronutrient susceptibility, and fat/protein/carbohydrate metabolism that could affect clinical intervention. In addition, gut microbiome differences are present in patients pre/post bariatric surgery. This pilot study examines genomic and microbial biomarkers associated with weight loss 12 months post sleeve gastrectomy (SG).

Methods
Sixty-seven patients 12 months post SG were enrolled: 34 had excess weight loss (EWL) >50% (Group A) and 33 had EWL <50% (Group B). Genetic and microbiome data were collected. ANOVA analysis and regression were performed.

Results
Group A genomic associations included a lower genetic predisposition to prefer sweet foods, improved insulin sensitivity with exercise, and a genetic propensity for lower vitamin D needs and higher vitamin K needs. The Firmicutes/Bacteroidetes ratio did not differ between groups. Group A had a higher abundance of gut microbes with metabolic pathways for vitamin K2 synthesis, propionate production, and simple sugars degradation. However, no associations remained significant after multiple testing corrections.

Conclusion
Results agree with previous findings linking gut microbiome functional pathways with weight loss and point to additional associations not yet reported. Genetics and the gut microbiome may modulate weight loss post bariatric surgery, warranting additional research with a better-powered sample size.

A315

The Advantages of Totally Robotic (TR) Metabolic Bariatric Surgery (MBS) on Surgical Outcomes of Patients with Type 2 Diabetes

Cynthia Buffington *Celebration FL*[1], Dennis Smith *Celebration FL*[1], Ciara Lopez *Celebration FL*[1], Sharon Krzyzanowski *Celebration FL*[1], Catherine Santos *Celebration FL*[1]
AdventHealth[1]

Background.
Diabetes increases surgical risk for MBS patients. In this study we have examined the effects of totally robotic (TR) versus laparoscopic (LAP) surgery on peri- and 30-day postoperative surgical outcomes of MBS patients with Type 2 diabetes (T2D).

Methods.
Totally robotic (TR) and laparoscopic (LAP) Roux-en-Y gastric bypass (RYGB, n=351) and sleeve gastrectomy (SG, n=393) were performed by a single surgeon between January 9, 2020 and December 1, 2023. Among the surgeries performed, 275 were LAP and 469 TR. T2D incidence for all patients was 28% (RYGB=29%, SG=27%). Outcome measurements included: 1) patient characteristics (age, weight, BMI, co-morbidities, gender and 2) peri- and postoperative surgery outcomes, i.e. operative time, length of hospital stay (LOS), 30-day readmissions, reoperations, complications.

Results.
Patients with T2D, as compared to those without, were significantly older (49.0 vs. 42.9 y), more likely to be male (31% vs. 23%) and had a higher number of preoperative co-morbidities (4.0 vs. 2.2, $p<0.0001$). With the LAP approach, patients with T2D vs. non-diabetes had significantly higher operative times (79.1 vs. 73.4 min, $p=0.03$), LOS (1.31 vs. 1.20 d, $p=0.0015$) and major complications (8.3% vs. 2.6%). The TR approach significantly ($p<0.01$) reduced operative times and LOS for patients with and without T2D and to comparable levels. Complication rates with the TR declined from 8.3% LAP to 2.4% TR for patients with T2D and 2.6% LAP to 0.9% TR for those without.

Conclusion.
Surgical outcomes are improved with the totally robotic system over conventional laparoscopy for patients with T2D.

A316

Successful Conservative Management of Early Post-Op Obstruction Following Roux-en-Y Gastric Bypass

Damien Lazar *New York NY*[1], Steven Em *New York NY*[1], John Saunders *NYC NY*[1], Patricia Chui *New York NY*[1], Peter Einersen *Mount Kisco NY*[1], Julia Park *New York NY*[1], Eduardo Somoza *New York NY*[1], Manish Parikh *New York NY*[1], Jeffrey Lipman *New York NY*[1]
New York University Langone Health[1]

Background:
Early postoperative small bowel obstruction (ESBO) following roux-en-Y gastric bypass (RYGB) is a feared complication, generally estimated to occur in 1-2% of cases. Most surgeons advocate for prompt surgical exploration for ESBO after RYGB. There is currently a paucity of literature regarding conservative management approaches to ESBO after RYGB. The objective of this study is to determine the feasibility of nonoperative management for ESBO after RYGB.

Methods:
We performed a retrospective review of all patients at a single institution who underwent RYGB between July 1, 2020 and November 1, 2023 and were readmitted within 30 days of the procedure due to a small bowel obstruction.

Results:
2084 RYGBs were performed, 56 unique patients (2.7%) experienced ESBO. Patients were 93% female, with a mean age 47.4 years, mean BMI 38.8, and mean ASA score 2.4. Mesenteric defects were closed with permanent suture in 100% of cases. The average interval from time of surgery to diagnosis of ESBO was 9.4 days. 46 patients (82.1%) were successfully managed conservatively, with 19 (40.4%) of those patients receiving nasogastric tube decompression. 10 patients (17.9%) required surgery either due to failed conservative management or concerning radiographic features prompting immediate return to the operating room. 1 patient (1.8%) underwent jejunojejunostomy revision.

Conclusions:
This study demonstrates that conservative management may be a safe and effective treatment option for early bowel obstruction following roux-en-Y gastric bypass.

A318

Lost in Interpretation?

Outcomes are equivalent between English Speaking and Non-English Speaking Patients following Bariatric Surgery with use of Certified Medical Interpreters

Sigrid Williamson *West Reading PA*[1], Oliver Gibb *West Reading PA*[2], Megan Bradley *Wyomissing PA*[2], John Fam *Wyomissing PA*[1], David Tichansky *Los Angeles CA*[3]
Reading Hospital[1] Drexel University[2] David Geffen School of Medicine at UCLA[3]

Introduction:
Differences exist in medical treatment and outcomes of culturally and linguistically diverse patients. Extensive use of certified medical interpreters (CMI) can theoretically reduce these differences. This study compares outcomes following bariatric surgery between English speaking (ES) and non-English speaking (NES) patients who used CMI's, thus evaluating the contribution of CMI to healthcare equity in bariatric surgery.

Methods:
Adult patients who underwent Roux-en-Y Gastric Bypass, Sleeve Gastrectomy, or Duodenal Switch over a two-year period were divided into two groups by self-reported primary language, ES and NES. NES patients received all written educational materials in their primary language and were verbally communicated with through CMI's. Data from pre-operative and follow-up visits up to 2 years were retrospectively collected. Outcomes between groups was compared using Chi-square analysis, group t-tests, and repeated measures 2-factor ANOVA, with $p<0.05$ indicating statistical significance.

Results:
Of 783 patients, 705(90.0%) were ES and 78(10.0%) were NES. Mean preoperative BMI was significantly higher in ES patients (46.19kg/m^2 vs. 43.06kg/m^2, $p<0.001$). Follow-up to all visits was equivalent between groups. There were no differences in preoperative comorbid conditions except NES had greater prevalence of GERD(58.4% vs. 48.5%,p-0.035). There were no significant differences in weight loss at any two consecutive time points between groups. There was no significant difference between groups in total body weight loss (27.8% vs 27.94%, p =0.93), percent excess weight loss (52.6% vs 55.3%, p=0.38), or comorbidity resolution at 2-years

Conclusion:
With use of CMI, equivalence and equity in bariatric surgery outcomes can be achieved in NES patients.

A320

Effects of pain on weight loss outcomes in patients seeking metabolic and bariatric surgery

Chelsea Taylor *Baltimore MD*[1], Janelle Coughlin *Baltimore MD*[2], Lauren Moss *Baltimore MD*[2], Colleen Schreyer *Baltimore MD*[2]
University of Maryland, Baltimore County[1] Johns Hopkins School of Medicine[2]

Chronic pain is common in patients who seek metabolic and bariatric surgery (MBS) and is associated with less total post-surgical weight loss (%TWL) compared to those without chronic pain. This study further characterized pain location, grade, and catastrophizing and evaluated the impact of these pain dimensions on %TWL, controlling for surgical type and socioeconomic status (SES). Participants ($N = 470$) were adults who underwent sleeve gastrectomy (78%) or gastric bypass (22%) and completed assessments of demographics, pain location and duration, the Graded Chronic Pain Scale, and the Pain Catastrophizing Scale preoperatively. Chronic pain was defined as pain persisting for >30 days. Weight was measured pre-operatively and 6-, 12-, 18-, and 24-months post-MBS. The sample was primarily female (81%) and racially diverse (48% Black; 39% White). One-third (37.8%) reported preoperative chronic pain localized most frequently to patients' backs, legs, and knees. Pain grade and surgery type, but not SES were related to %TWL. Patients who underwent sleeve gastrectomy had a lower %TWL across post-surgical follow-up. Pain grade was related to %TWL at 6- and 12-months post-MBS ($ps<.05$), but not at 18- or 24-months. Patients with high pain intensity (Grade 2) had a larger %TWL compared to those with high pain intensity and disability (Grade 4) and those without chronic pain at 6 and 12-months. Higher pain catastrophizing was associated with less %TWL at 6-months, controlling for pain grade ($p<.05$). Results suggest that pain grade and pain catastrophizing have the strongest impact on weight loss outcomes in the first 6-12 months post-surgery.

A322

EFFECTIVENESS AND DURABILITY OF COMMON WEIGHT LOSS METHODS

Megan Jenkins *New York NY*[1], Juliane Hafermann *Koenigswinter* [2], Christine Fielding [1], Gerhard Prager *Vienna* [3], Marina Kurian *New York NY*[1]
NYU Langone Health[1] Coreva Scientific[2] IFSO[3]

Obesity is a chronic disease requiring long-term treatment to achieve sustainable weight loss. Based on published data, three treatment approaches were compared regarding their effectiveness and stability of results: lifestyle interventions, GLP-1 receptor agonists (semaglutide and tirzepatide), and bariatric surgery (Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy).

A systematic review of lifestyle interventions demonstrated a 7.4% mean weight loss at the end of the treatment period, but 0.14% of weight was regained per month post-treatment, reaching pre-intervention weights within 4.1 years.

Weekly injections of semaglutide for 20 weeks and tirzepatide for 36 weeks resulted in 10.6% and 21.1% weight loss, respectively. Once injections were stopped, approximately half of that weight was regained within a year. If injections were continued, a plateau was reached after 17-18 months at 22.5% for tirzepatide and 14.9% for semaglutide. Within 2 years of semaglutide treatment, approximately 2% of the lost weight was regained.

A systematic review of weight loss outcomes after RYGB and sleeve gastrectomy demonstrated a total weight loss of 31.9% and 29.5% one year after surgery, respectively. Over the following years, roughly 5-7% that weight was regained, so that both procedures resulted in a stable total weight loss of approximately 25% after 8-10 years.
Lifestyle interventions do not lead to sustainable weight loss, and the effect of weight loss medication were also not permanent if the medication was not continued. In comparison, bariatric surgery showed the largest effect and resulted in sustainable weight loss in the years after treatment.

A323

Exploring Inflammatory Marker Changes after Bariatric Surgery: Interleukin-17 and Tumor Necrosis Factor-alpha

Steven Em *New York NY*[1], Sally Vanegas *new york NY*[2], Akash Gujral *New York NY*[2], Silvia Curado [2], Christine Ren-Fielding *new York NY*[2], Manish Parikh *New York NY*[2], Melanie Jay *New York NY*[2]

NYU Langone Health / Northwell Health[1] NYU Grossman School of Medicine[2]

Introduction:

Interleukin-17 (IL-17) and Tumor Necrosis Factor-alpha (TNF-a) have been implicated as mediators of insulin resistance and atherosclerosis. Levels of these pro-inflammatory cytokines have been reported to change after bariatric surgery. We aim to describe changes in these biomarkers after bariatric surgery and how they potentially differ between patients with normal glucose regulation (NL), pre-diabetes (pre-DM), and non-insulin dependent diabetes (DM).

Method:

We prospectively enrolled 300 patients who underwent Sleeve Gastrectomy (SG) and collected anthropomorphic data and IL-17 and TNF-a levels pre-op and post-operatively to 1 year.

Results:

IL-17 levels were significantly higher at baseline in pre-DM vs DM (9.53pg/mL vs 6.77pg/mL**,** p=0.019), and significantly lower at 1-year in DM vs NL (5.90pg/mL vs 7.66pg/mL, p= 0.030). There was no significant differences in baseline values of TNF-a. Levels of TNF-a were significantly decreased at 1-year post-op in the pre-DM (6.71pg/mL to 5.79pg/mL, p=0.033) and DM (5.99pg/mL to 5.30 pg/mL, p=0.028) groups.

Conclusion:

We report TNF-a levels were significantly decreased after SG in patients with pre-DM and DM. Levels of IL-17 were also significantly lower in DM compared to NL at 1 year after SG.

A324

Robot-Assisted Roux-en-Y Gastric Bypass with Extensive Lysis of Adhesions

Nathan May *Columbia MO*[1], Thomas Xu *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Milot Thaqi *Columbi MO*[1]
University of Missouri Healthcare[1]

29-year-old female presented for a planned Roux-En-Y Gastric Bypass. During the procedure, significant adhesions between bowel to bowel were discovered making the bypass significantly more difficult. At the end of the case, seprafilm was placed along the jejunojejunostomy anastomosis to prevent adhesions as well as laying the omentum over the anastomosis.

A325

Diagnostic Laparoscopy with Reduction of Internal Hernia and Resection of Mesenteric Band

Nathan May *Columbia MO*[1], Hunter Chalfant *Columbia MO*[1], Joshua Landreneau *Columbia MO*[1], Norbert Richardson *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Milot Thaqi *Columbi MO*[1]
University of Missouri Healthcare[1]

A 61-year-old female with a past medical history significant for morbid obesity status post Roux-en-Y gastric bypass presented with abdominal pain and concern for bowel obstruction. The patient was found to have a band around the terminal ileum and transverse colon causing an internal hernia with a closed-loop obstruction of the right colon and terminal ileum. The band was resected and the internal hernia was reduced. There was a separate band connecting the sigmoid colon to this mesenteric band around the transverse colon which was also ligated.

A327

Laparoscopic assisted endoscopic resection of lesion in gastric remnant

Juyeon Park *Knoxville TN*[1], Kyle Kleppe *Knoxville TN*[1]
University of Tennessee Knoxville[1]

Roux-en-Y gastric bypass alters the gastrointestinal anatomy to make certain procedures not routinely feasible. One such concern is the difficulty in accessing the excluded remnant stomach to evaluate for bleeding or malignancy. This case report describes a 52 year old female who had a history of a laparoscopic gastric bypass with an incidental finding of a polypoid lesion in her remnant stomach. The patient was brought to the operating room for a laparoscopic assisted endoscopic resection of the lesion in her gastric remnant. Four 5mm trocars, a 15mm trocar to accomodate an endoscope, and a liver retractor were used to access the abdomen. A gastrotomy was made in the remnant stomach to insert the 15mm trocar. A gastroscope was placed through the trocar into the remnant stomach to visualize and remove the polypoid lesion from the fundus with a hot snare and endoscopic net. The lesion came back as a hyperplastic polyp and the patient was relieved with the minimally invasive method of diagnosis and resection of the lesion. In conclusion, in patients with altered anatomy such as a gastric bypass, identifying hybrid methods utilizing both laparoscopic and endoscopic techniques can be beneficial for minimally invasive identification, diagnosis, and treatment of lesions in difficult to reach locations with minimal morbidity.

A329

Postoperative Stroke following Primary Bariatric Surgery: An Analysis of The Metabolic And Bariatric Surgery Accreditation And Quality Improvement Program (MBSAQIP) Data Registry

Raul Rosenthal *Weston FL*[1], Roberto Valera *Weston FL*[1], David Romero Funes *Plantation Florida FL*[1], David Gutierrez Blanco *Davie FL*[1], Emanuele Lo Menzo *Weston FL*[1], Samuel Szomstein *North Miami Beach FL*[1]
Cleveland Clinic Florida[1]

BACKGROUND

Perioperative stroke is a rare but devastating complication after major abdominal surgery. Bariatric Surgery (BaS) patients are a high-risk population for this adverse outcome given their cardiometabolic comorbidities. Recent studies have shown a low but increasing incidence rate of this complication. We aimed to describe patient and procedure related factors that may increase the risk of stroke after primary laparoscopic BaS.

METHODS

We performed a retrospective analysis of the MBSAQIP database for patients aged ≥18 years old undergoing laparoscopic sleeve gastrectomy (LSG) and Roux en Y gastric bypass (LRYGB) during 2015-2019. Data on demographics, comorbidities and type of procedure were collected. The primary outcome of the study was the incidence of stroke. Secondary outcomes included 30-day complications and mortality. Univariate analysis was performed to look for any differences between patients with and without stroke; a multivariate logistic regression model was performed to determine clinical predictors.

RESULTS

A total of 752,722 patients were included in our analysis. Stroke occurred in 97 patients (0.012%). Univariate analysis showed that patients with postoperative stroke had higher rates of adverse 30-days outcomes (Table 2), with a mortality rate as high as 10.3%. Multivariable analysis showed that the predictors of perioperative stroke were having a history of chronic kidney disease, being on anticoagulation therapy and age > 45 years (Table 3).

CONCLUSION

Postoperative stroke is associated with significantly adverse 30-day outcomes in patients undergoing BaS. Our analysis showed that a history of chronic kidney disease was the most relevant independent predictor of stroke.

A330

stent for treatment gastric leak, is it safe?

sergio salcedo *Guadalajara*
hospital regional Dr Valentin Gomez Fari

45 year old patient who underwent sleeve gastrectomy who presented 2 days after procedure gastric leak treated with an esophjageal stent for 5 weeks, which adhered to gastric wall, so it was removed surgically, performing gastro-jejunum anastomosis, with good results

A333

Fundo-Me-Not: Takedown of fundoplication of the gastric pouch to repair a recurrent post-gastric bypass hiatal hernia

Tuan Tran *Tampa FL*[1], Gabriel Glaun *Tampa FL*[2], John Gonzalvo *Tampa FL*[3], Michel Murr *Tampa FL*[3]
Advent Health Tampa[1] Co-Fellow[2] Attending[3]

Hiatal hernia after gastric bypass is a serious problem that is difficult to manage. There have been instances of surgeons using the remnant stomach to create a fundoplication around the gastric pouch to treat hiatal hernias. In this video, we demonstrate a patient's hiatal hernia recurrence after a toupet fundoplication of a gastric pouch. We perform a mediastinal dissection to reduce the herniated fundoplication and gastric pouch, takedown the fundoplication, perform a hiatal hernia repair utilizing fixation of the esophagus and pouch, and resect the battered portion of remnant stomach. Hiatal hernia after bariatric surgery is a difficult situation that we believe can be treated without fundoplication.

A334

Bariatric Surgery Targeting Opioid Prescriptions (BSTOP): Selected Outcomes from South Miami Hospital Florida

Jonathan Chino *Miami FL*[1], Naofal Kenneth da Silva *Miami FL*[1], Anthony Gonzalez *Miami FL*[1], Shohab Virk *Miami FL*[1], Michelle Gallas *Coral Gables FL*[1]
South Miami Hospital Florida[1]

Introduction:
With the growing opioid crisis in the US, trends have turned towards finding ways to limit their unnecessary use in all aspects of medicine. Bariatric Surgery Targeting Opioids Prescriptions (BSTOP) is a MBSAQIP QI project run from October 1, 2019 to March 31, 2021 with the goal of reducing opioid use in participating MBSAQIP accredited bariatric programs.

Methods:
Preoperative, perioperative, and postoperative results are broken into three phases; Data Collection, Pilot, and Implementation. The protocol included routine use of at least two non-opioids prior to anesthesia, avoidance of opioids intraoperatively with the use of TAP blocks, as well as IV induction of ketamine, lidocaine, or magnesium, routine use of at least two non-opioids postoperatively, and finally discharge on at least one non opioid for at least 3 to 5 days after surgery.

Results:
At our center, median inpatient opioid use decreased from 40 MMEs to 12 (BSTOP 34 to 25). Opioid prescriptions on discharge decreased from 71.2% to 10.2% (BSTOP 81.9% to 74.1%,) with an increase in non-opioid prescriptions on discharge from 17% to 76.9% (BSTOP 24.8% to 47.3%.) TAP blocks increased from 0% to 71.4%.

Conclusions:
The BSTOP program at our site appears to be an effective way to decrease opioid use in bariatric surgery patients. Participation by all members of the perioperative care team in a structured protocol is necessary for most efficient results. More studies are required to further identify the most effective intervention on further decreasing opioid use and improving bariatric surgery for patients.

A335

Examining the impact of unlisted CPT code 43659 on bariatric surgical practice

Don Selzer *Indianapolis IN*[1], Vanessa Ramirez *Plainfield IN*[1], Jennifer Choi *Indianapolis IN*[1]
Indiana University School of Medicine[1]

Background:
Current Procedural Technology (CPT) codes are used to identify an interaction between a surgeon and patient. Innovative or uncommon procedures do not have specific codes. Instead, an "unlisted" code is used. Bariatric surgeons commonly use 43659, *unlisted laparoscopy procedure, stomach.* This study examines use of CPT code 43659 in an academic bariatric surgical practice.

Methods:
The electronic billing platform for an academic practice was queried over an 8-year period (1/2015 to 12/2022). A list of procedures using 43659 was generated and reviewed by a coding expert. Collected data includes surgeon, date of service, and procedure.

Results:
Over an 8-year period, use of 43659 increased by 650% (7 in 2015, 46 in 2022). The percentage of procedures represented by 43659 increased from 1.5% (2016) to 15.4% (2021). The number of surgeons changed with 1 registering in 2015 and 5 in 2017, 2019, and 2021. The most common procedures include revision of gastric bypass and duodenal switch. On average, the number of procedures performed by each surgeon increased from 1 (2016) to 11.5 (2022). However, in 2022, 33 of 46 (71.7%) of the procedures were performed by 1 surgeon.

Conclusions:
The majority of procedures performed by bariatric surgeons are mainstream techniques represented by standard CPT codes. However, surgeons performing revisional or less common operations use an unlisted code. In this academic surgical practice, appropriate use of CPT code 43659 increased significantly over 8 years. This study emphasizes the importance of unlisted CPT codes on ASMBS members with potential significant economic impact.

A339

The Impact of Frailty Status on Serious Complications After Bariatric Surgery: A Comparison Between Robotic and Laparoscopic Approaches

Michelle Chang *Tucson AZ*[1], Chiu-Hsieh Hsu *Tucson AZ*[1], Diaa Soliman *Tucson AZ*[1], Iman Ghaderi *Tucson AZ*[1]
University of Arizona[1]

Background:
The objective of this study was to examine the effects of frailty based on bariatric surgery specific frailty index on Clavien-Dindo (CD) score (≥3) by procedure (Roux-en-Y gastric bypass (RYGB), Sleeve Gastrectomy (SG) and Duodenal Switch (DS) and approach (Laparoscopic (L) and Robotic (R) using the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database (2016-2019).

Methods:
All adult patients were included. Fourteen variables of the Canadian Study of Health and Aging Frailty Index were mapped onto nine variables of MBSAQIP to derive a bariatric frailty score (0-10) which were classified as Not Frail (0), Pre-Frail (1-2), and Frail (≥3). Logistic regression was performed to evaluate the effects of frailty on ≥3 CD complications.

Results:
The majority of patients undergoing bariatric surgery were pre-frail (55.9% in laparoscopic cohort and 57.2% in robotic cohort). There was a direct correlation between higher frailty scores and an increased incidence of ≥3 CD complications in both laparoscopic and robotic cohorts, except in the L-DS group. Our results showed that the outcomes of robotic approach is dependent on frailty score in all three procedure groups ($p<0.05$). For pre-frail patients, the robotic approach consistently resulted in less complications compared to laparoscopic cohort.

Conclusions:
This study showed that serious postoperative complications are affected by the frailty status of patients when comparing the robotic to laparoscopic approach. Using a bariatric frailty score may allow us to identify those at greater risk for complications, assist with prehabilitation and aid decision making for an appropriate surgical approach.

A328

Effect of Balance and Core Strengthening Exercises on Falls Activities of Daily Living (ADL) and Quality of Life in Geriatric Patients After Bariatric Surgeries

Winnie Mathur *Indore* [1], Mohit Bhandari *Indore* [1]
MOHAK BARIATRICS AND ROBOTICS[1]

Aim:
This study aimed to determine whether a structured exercise program focused on balance and core strengthening could reduce the incidence of falls, improve activities of daily living (ADLs), and enhance the overall quality of life in geriatric patients after bariatric surgeries.

Methodology:
148 geriatric patients who had undergone bariatric surgeries at our centre were enrolled in the study. Participants were divided into two groups: an intervention group that participated in a 12-week balance and core strengthening exercise program and a control group that did not receive the intervention. Baseline data on falls, ADLs, and quality of life were collected. These measures were re-assessed at the end of the 12-week intervention period.

Results:
The intervention group demonstrated a significant reduction in falls, with a 30% decrease compared to the control group. Improved ADL performance was observed in the intervention group, as evidenced by a 20% increase in independence in daily activities. Additionally, participants in the intervention group reported a higher quality of life score, indicating a significant improvement in their overall well-being and satisfaction with life.

Conclusion:
This study highlights the positive impact of balance and core strengthening exercises on reducing falls, enhancing ADLs, and improving the quality of life in geriatric patients after bariatric surgeries. A structured exercise program tailored to the needs of this specific population can be a valuable adjunct to post-bariatric surgery care. Further research, including randomised controlled trials, is needed to confirm and expand upon these promising results.

A341

Pre and Post-Semaglutide Era: A Comparative Study of Bariatric Surgery Outcomes

Winnie Mathur *Indore* [1], Mohit Bhandari *Indore* [1]
MOHAK BARIATRICS AND ROBOTICS[1]

Bariatric surgery has emerged as an effective intervention, and the recent introduction of semaglutide has generated interest in its potential impact on surgical outcomes.
We compared the outcomes of bariatric surgery in patients who received semaglutide as part of a preoperative program with those who did not.

Methodology:
Among the 115 patients, 57 received semaglutide alongside a very low-calorie diet (VLCD) program for 30 days before surgery. The remaining 58 patients followed a VLCD without semaglutide. Patient characteristics, operative details, postoperative complications, and weight loss were analysed.

Results:
Patients in the liraglutide group had a higher mean preoperative weight (230kg vs 206kg) and a greater prevalence of OSA (83% vs 78%) but lower rates of T2DM (10% vs 20%) and HTN (48%vs35%) compared to the non-semaglutide group. Semaglutide patients achieved a significant weight loss of 32 kgs in one month before surgery (from 230kg to 198 kgs) and exhibited a shorter operative time. They also achieved early mobilisation and notable weight loss at 3 and 6 months (47kg and 62kg, respectively). In comparison, the non-semaglutide group experienced weight loss of 29kg, 41kg, and 53kg at the same time intervals. Liquid diet tolerance (40%) was similar in both groups, while the semaglutide group preferred a pureed diet over soft foods. Nausea, vomiting, and constipation were slightly more common among semaglutide patients.

Conclusion:
The addition of semaglutide in the preoperative regimen appears to have significant weight loss and postoperative recovery outcomes, although semaglutide patients experienced slightly more gastrointestinal side effects.

A343

Endoscopic sleeve gastroplasty 5 years data: What happened to our patients after 5 years

Winnie Mathur *Indore* [1], Mohit Bhandari *Indore* [1], Manoel Galvao Neto *Orlando FL*[1]
MOHAK BARIATRICS AND ROBOTICS[1]

This study aims to provide insights into weight loss patterns and comorbidity improvements over a minimum 5-year follow-up period following ESG in a single academic centre in India.

Methodology:
In this prospective cohort study, ESG procedures were performed by the same surgeon on patients with a body mass index (BMI) greater than 30 kg/m2 (or >27 with comorbidities) for obesity treatment. The patients were systematically followed annually after the procedure, and data on primary and secondary outcomes were collected and analyzed.

Results:
A total of 941 patients, predominantly female (69.3%), with an average age of 40.70 ± 12.66 years and a mean BMI of 34.30 ± 5.05 kg/m^2, underwent ESG. Follow-up rates at 1, 2, 3, 4and five years were 90.1%, 77.2%, 70.7%, 67.8%, and 65.9%, respectively. The mean percentage total body weight loss was 12.19% (95% confidence interval [CI]: 11.12–13.18), with 90% of participants maintaining a percentage of total weight loss of ≥5% and 70% maintaining an excess weight loss (EWL) of ≥25% at five years. Furthermore, comorbidities, such as type 2 diabetes mellitus (T2DM), hypertension, dyslipidaemia, and obstructive sleep apnea, showed significant improvements with remission rates of 51.2%, 65.8%, 73.6%, and 89.9%, respectively. There were no emergency interventions, mortality, or significant morbidity cases.

Conclusions:
This study demonstrates the favourable long-term outcomes of ESG for five years in a single academic centre in India. Regular multidisciplinary monitoring supports sustained weight loss, comorbidity resolution, and improved quality of life with low perioperative complications.

A342

A Leak by Any Other Name in MBSAQIP

Jenna Whitrock *Cincinnati OH*[1], Ryan Chae *Cincinnati OH*[1], Catherine Pratt *Cincinnati OH*[1], Dennis Hanseman *Cincinnnati OH*[1], Joseph Imbus *Loveland OH*[1], Jennifer Colvin *Cincinnati OH*[1], Jonathan Thompson *West Chester OH*[1]
University of Cincinnati[1]

Objective:
Staple-line leak is a well-known complication of sleeve gastrectomy. MBSAQIP has published contradictory guidance on leak counting strategies. Unfortunately, this has led to variability in reporting leaks and the use of organ-space surgical site infection (OSI) as a surrogate. This study evaluates the effectiveness of OSI as a surrogate for leak and the completeness of the leak variable introduced in 2020.

Methods:
The MBSAQIP PUF was queried from 2015-2022. Leak was counted by methods found in the semiannual reports (SAR) for two distinct time periods. Before 2020, "SAR def 15-19" was defined as readmission, reoperation, or reintervention with leak given as most likely reason. Since 2020, "SAR def 20-22" is defined as "SAR def 15-19" OR leak recorded under the new MBSAQIP variable: POSTOPANASTSLLEAK. These leak rates were compared to rates of OSI, and kappa statistics were calculated.

Results:
Of 559,324 sleeves performed from 2015-2019, 0.21% (n=1,203) were positive for "SAR def 15-19", 0.15% (n=854) were positive for OSI, and 0.09% (n=479) were positive for both ($k= -0.46$, $p<0.01$) (**Figure**). Of 373,671 sleeves performed from 2020-2022, 0.19% (n=698) were positive for "SAR def 20-22", 0.21% (n=769) were positive for OSI, and 0.14% (n=509) were positive for both ($k= -0.30$, $p<0.01$) (**Figure**). When comparing "SAR def 15-19" vs POSTOPANASTSLLEAK, there was no agreement between these variables ($k= -0.28$, $p<0.01$) (**Figure**).

Conclusion:
Organ space SSI and leak do not have agreement in MBSAQIP and should be reported separately. We suggest counting leaks according to the SAR method during any given year.

A347

Early outcomes of Same Day Sleeve Gastrectomy: A Pilot Study

Niti Shahi *Denver, Aurora CO*[1], Erin Shelly *Aurora CO*[1], Linda Fernekes *Aurora CO*[1], Kevin Rothchild *Aurora CO*[1], Akshay Chauhan *Aurora CO*[1], Jonathan Schoen [2], Kweku Hazel *Aurora CO*[1]

University of Colorado[1] Centura Bariatric Surgery Westminster[2]

Introduction:

There is limited data on incidence of readmission for dehydration, failure to thrive, and bleeding following same day sleeve gastrectomy (SDSG). We aimed to assess the safety and outcomes following implementation of a SDSG program at our institution.

Methods:

We included all patients who qualified and agreed to a SDSG from 12/7/21 to 12/8/23 at the University of Colorado. Patients were eligible for SDSG if they were 18-60 years old, and had a BMI $\leq$50. Exclusion criteria are outlined in Figure 1.

Results:

A total of 26 patients were included. The average age of the study patients was 38 years old, with a mean BMI of 43. Most patients (96%; 25/26) underwent a laparoscopic sleeve gastrectomy, and one patient had a robotic sleeve gastrectomy. Seven patients (27%, 7/26) underwent concomitant hiatal hernia repair.

There were four unplanned admissions due to (15%, 4/26) for a combination of pain control issues (50%, 2/4), nausea/vomiting (50%, 2/4), and respiratory monitoring (50%, 2/4). In the remaining patients (85%, 22/26), the average length of stay was 5.3 hours prior to discharge. Five patients (19%; 5/26) had remote monitoring following surgery. There were no gastric leaks or postoperative hematomas. There were no readmissions for dehydration or failure to thrive; however, there was one readmission for postoperative pulmonary embolism.

Conclusions:

Our pilot study demonstrates the safety of SDSG even with concurrent hiatal hernia repair.

A346

Gastric perforation after OAGB

Amador Garcia Ruiz de Gordejuela *Donostia* [1], Paula Riverola *Donostia* [2], Estibaliz Martin [2], Uxue Iparragirre [2], Lorena Arrabal [2], Laura Marti Gelonch *San Sebastian* [2], Emma Eizagirre *Donostia- San Sebastian* [2]

Vall d'Hebron University Hospital[1] Hospital Universitario Donostia[2]

Introduction.

One Anastomosis Gastric Bypass (OAGB) is gaining popularity as a bariatric procedure, but it faces also some complications as biliary reflux, malnutrition and high risk of anastomotic ulcers.

Case Presentation.

We present a case of a 68 years old man who had been operated of a OAGB in a private center. Patient had an uneventful postoperatory and presented a very good weight loss and related disease evolution. He consulted to his General Practitioner due to increased bowel movements and epigastric pain, a blood test showed some parameters of malnutrition. Before the patient was submitted to a bariatric physician, he came to the Emergency Room with sudden abdominal pain, low blood pressure and tachycardia. A CT Scan was done and a perforated anastomotic ulcer was found. After resuscitation with iv fluids and wide spectrum antibiotics, he was taken to emergency laparoscopy where the perforated ulcer was confirmed, and a purulent peritonitis was found. The patient kept stable during the surgery, a conversion into a proximal Roux-n-Y Gastric bypass with resection of the previous GJ anastomosis and the perforated ulcer was performed. The patient had a 300cm total bowel length with a TALL of only 130cm, so a previous bowel reconstruction was required.

After surgery the patient did well and was discharged on POD 6 with no complications. 5 months after surgery he gained some weight, improved his nutritional parameters and restored normal bowel movements.

A348

Common Channel Limb Lengthening as a Revisional Surgery Following Single Anastomosis Duodenal-ileal Switch is Safe and Effective

Lucas Fair *Dallas TX*[1], Stacy Nguyen *Dallas TX*[1], Anthony Waddimba *Dallas TX*[2], Aidan Barrera *Bryan TX*[3], Gerald Ogola *Dallas TX*[2], Daniel Davis *Dallas TX*[1]
Baylor University Medical Center[1] Baylor Scott & White Research Institute[2] Texas A&M College of Medicine[3]

Introduction:
While the single anastomosis duodeno-ileal switch with sleeve gastrectomy (SADI-S) has shown promising results, revisions due to malnutrition or malabsorption are significant concerns. One surgical option that can be considered for revisional surgery after SADI-S is common channel limb lengthening. This study aimed to evaluate outcomes following common channel limb lengthening as a re-operation after SADI-S at a high-volume bariatric center of excellence.

Methods:
A prospectively maintained data registry was retrospectively reviewed to identify all patients who underwent common channel limb lengthening following SADI-S at our institution from August 2016 to February 2023. Outcomes following common channel limb lengthening were analyzed.

Results:
A total of 14 patients (10 females; 4 males) with a mean age of 48.7 years were included. Reasons for reoperation were malnutrition (n=10) and malabsorptive symptoms refractory to medical management (n=4). The mean original common channel length was 250.1 cm, and the mean operative time was 98.09 minutes. When compared to preoperative baseline values, albumin levels were significantly increased at 3 months (2.97 vs 3.68, p=0.02), 6 months (2.97 vs 3.87, p=0.02), and 12 months (2.97 vs 3.97, p=0.03) after re-operation. Moreover, patients sustained a significant reduction in their BMI (-15.6 kg/m2, p=0.01) and percent weight loss (29.8, p=0.01) for up to one year postoperatively following their revisional surgery when compared to their pre-bariatric surgery weights. No major complications were observed at the 30-day review following revisional surgery.

Conclusion:
Common channel limb lengthening is a safe and effective revisional surgery following SADI-S.

A349

Optimizing Patient Outreach to Improve Follow-Up Appointments Among Duodenal Switch Patients

Corinne Chomiczewski *Newton MA*[1], Sheila Partridge *Newton MA*[1], Susana Wishnia *Newton MA*[1], Renee Waite *Newton MA*[1]
MGB Newton-Wellesley Hospital[1]

Introduction:
Duodenal Switch (DS) patients are a group of patients in a high-risk category for severe, preventable nutritional deficiencies. As such, they require close follow-up and yearly lab monitoring. Due to a variety of factors, this routine follow-up may not occur. The aim of this study was to evaluate shortfalls in DS patient follow-up, intervene by contacting all "off track" DS patients, and ultimately, schedule them a clinic appointment for nutrition monitoring and risk assessment.

Methods:
Patients who had DS surgery from January 2017 until March 2022 were retrospectively reviewed. The date of their procedure, type of procedure (robotic vs. laparoscopic) and subsequent follow-up intervals (1 week post op, 31-day Diet Advancement, 3-month, 6-month, 9-month, 1-year, 1.5-year, 2 years, and annual visits thereafter) were evaluated.

Results:
60 DS patients were included in this study. 24 of the DS patients were considered "off track" and received intervention. There was an 8.3% (n=24) response rate after our first (letter) intervention, and there was a 65% (n=17) response rate after our monthly phone calls (spanning 3 months). The combination of both interventions showed a 77% response rate and a significant improvement in DS patient follow-up.

Conclusion:
Our two outreach interventions decreased our "off track" patients from 45% to 24%. Patients are more likely to make an appointment with telephone call outreach (65%) compared to letter outreach (8.3%). Electronic medical records can be utilized to monitor follow-up and help increase compliance.

A350

Managing high-risk metabolic and bariatric surgery candidates in a multidisciplinary setting

Ashleigh Pona *Columbus OH*[1], Eva Panigrahi *Columbus OH*[1]
Ohio State University Medical Center[1]

Psychologists are the bridge between behavioral health and medicine. Identifying the medical and psychological complexities that determine a patient's candidacy for surgery warrants consultation with a multidisciplinary team. Given the complexity of addressing obesity management, the National Institutes of Health (NIH) recommended the inclusion of behavioral medicine to ensure safety and the provision of mental health care. High risk cases can be a challenge to navigate and require coordination and planning to optimize patient success and safety with surgery. As such, we will be presenting four clinical cases that demonstrate how behavioral health providers collaborate with other healthcare team members within bariatric care. More specifically, the cases will incorporate high risk presentations involving eating disorders, substance/alcohol use concerns, mental health, social/environmental factors, and medical adherence in the context of bariatric care. The presenters will discuss how behavioral health providers can navigate these cases while consulting with multidisciplinary team members, both internal and external to the bariatric clinic, to provide comprehensive care. We recommend alotting 40 minutes for the presentation with 5 minutes of questions and answers.

A352

Diagnostic Yield of Ambulatory pH Monitoring in Gastroesophageal Reflux Disease (GERD) Post Bariatric Surgery

Anna Lin *Omaha NE*[1], Ivanna Tang *Omaha NE*[1], Erika Bartschat *Omaha NE*[1], Corinna Brown Ton *Omaha NE*[1], Alex Hall *Omaha NE*[1], Haitam Buaisha *Barboursville WV*[1], Kalyana Nandipati [1]

Creighton University School of Medicine[1]

Background:
There is a lack of prior studies assisting the diagnostic yield of parameters like percent acid exposure time (AET), DeMeester score, and MNBI in post bariatric surgery patients. Our study aims to compare these diagnostic variables between patients with and without bariatric surgery.

Methods:
A retrospective analysis of Creighton University Medical Center patients aged 19-89 who underwent multichannel intraluminal impedance pH (MMI-pH) or Bravo (48 or 96 hours) monitoring between January 1, 2017 – August 31, 2023. Exclusions included motility disorders, prior anti-reflux procedures and monitoring on PPI. Patient characteristics and monitoring outcomes were stratified by bariatric surgery history ("Not Bariatric" vs "Bariatric"). Comparisons utilized logistic regression, Poisson regression, or two-part models, presented for unadjusted and adjusted models controlling for patient characteristics.

Results:
AET, DeMeester and MNBI were statistically similar between bariatric and non-bariatric patients (Table 2). Bariatric cases exhibited higher AET while supine (3.50% vs 1.69%, $p = 0.013$), weakly acid refluxes (37.07 vs 17.79, $p < 0.001$), and total refluxes (52.89 vs 40.76, $p < 0.001$), but lower acid and nonacid refluxes than non-bariatric cases (Table 2). Among 31 post-bariatric patients with negative total AET and DeMeester scores, 20 had a positive MNBI.

Conclusions:
AET and DeMeester seem to have similar diagnostic utility in patients with and without bariatric surgery. Incorporating MNBI enhanced GERD detection by 42% in post-bariatric patients. Considering MII-pH testing alongside standard Bravo testing may improve diagnoses and treatment in this population.

A351

Evaluating the Impact of the COVID-19 Pandemic on Outcomes of Conversional and Revisional Bariatric Surgery: An MBSAQIP Study

Komol Chaivanijchaya *Shaker Heights OH*[1], Thomas Shin *Boston MA*[2], Ayan Farah *Cleveland OH*[2], Juan Barajas-Gamboa *Abu Dhabi* [3], Sol Lee *Cleveland OH*[2], Andrew Strong *Cleveland OH*[2], Salvador Navarrete *Cleveland OH*[2], Ricard Corcelles *Cleveland OH*[2], Matthew Kroh *Cleveland OH*[2], Jerry Dang *Cleveland OH*[2], Gustavo Romero-Velez *New York NY*[2]
Cleveland clinic[1] Cleveland Clinic Main Campus[2] Cleveland Clinic Abu Dhabi[3]

Introduction:
The COVID-19 pandemic has profoundly impacted healthcare systems worldwide. Revisional bariatric surgery, as an essential treatment for weight recurrence and complications after bariatric, may have been significantly affected. This study aims to evaluate the pandemic's effect on revisional bariatric surgery procedures and trends by utilizing the MBSAQIP database to compare the pandemic, vaccination rollout, and post-pandemic periods.

Method:
We conducted a retrospective analysis of revisional, and conversional bariatric surgeries recorded in the MBSAQIP database from 2020 (during the pandemic), 2021 (vaccination rollout), and 2022 (post-pandemic). The number of cases, indications, complications, and procedures for revision and conversion were compared.

Result:
Out of 609,240 patients, 55,854 underwent conversion, and 16,335 underwent revision during 2020-2022. The percentage of conversions and revisions remained relatively constant (12.1%, 12.1%, 11.5%, $p<0.001$), but urgent revision rates were higher during the pandemic (3.1%, 2.2%, 1.8%, $p<0.001$). During the pandemic, revisional cases focused more on managing severe complications such as gastrointestinal fistula, perforation, stricture and dysphagia. However, after the pandemic, these shifted towards addressing weight recurrence, inadequate weight loss, and reflux. With this trend, the number of sleeve-to-bypass and sleeve-to-duodenal-switch procedures increased significantly after the pandemic **(Table 1)**. For revisions and conversions, serious complications were highest in 2020 (6.6%) and 2021 (6.4%) but lower in the post-pandemic period (5.8%, $p<0.001$). However, mortality was unchanged throughout the study (0.15%).

Conclusion:
Our study demonstrates distinct trends throughout the pandemic periods. This also shows that procedures during the pandemic were safe and necessary, although complications rates were slightly higher

A353

Weight Stigma Impacts Patient Follow-up after Metabolic and Bariatric Surgery

Harry Wong *Los Angeles CA*[1], A. Janet Tomiyama *Los Angeles CA*[2], Jangwon Suh *Los Angeles CA*[1], Kulmeet Sandhu *West Hollywood CA*[1], Miguel Burch *Los Angeles CA*[1], Scott Cunneen *Los Angeles CA*[1], Kristine Acorda Reece *Los Angeles CA*[1], Zsofia LaRue *Santa Monica CA*[1], Amanda Velazquez *Los Angeles CA*[1]
Cedars-Sinai Medical Center[1] University of California Los Angeles[2]

Introduction

Metabolic and bariatric surgery (MBS) is an effective treatment for obesity, which continues to be a highly stigmatized medical condition. High reported rates of attrition after MBS may have significant impact on patient outcomes. We aimed to explore the impact of weight stigma, among other factors, on patient follow-up after MBS.

Methods

A survey assessing barriers to follow-up after MBS was distributed to patients at three centers of bariatric surgery in Los Angeles, California. Questions from the Body Acceptance subscale (BAS) of the validated Fat Attitudes Assessment Toolkit were included, where higher scores reflect more positive self-evaluations that do not focus on weight.

Results

A total of 208 patients completed the survey, 147(70.7%) were female and a majority (177[85.9%]) reported overall health improvement after MBS. Postoperatively, 96(46.2%) respondents reported not having achieved their goal weight and 92(44.2%) reported weight regain. Of these, 18/96(18.8%) and 21/92(22.8%) avoided utilizing support services due to not achieving goal weight and weight regain, respectively. These patients also scored lower on the BAS (9.2 ±3.9 vs 13.0±3.4, $p<0.001$). Other barriers to post-MBS follow-up appointments, indicated by 124(59.6%) participants, included limited time/scheduling issues (19.2%), transportation/parking/distance (10.6%), and concern that the provider would judge them (4.3%). Patients who were worried that their provider would judge them scored lower on the BAS (7.8±3.6 vs 12.7±3.6, $p<0.001$).

Conclusion

Internal stigma towards weight may play a significant role in post-MBS patient attrition. Further studies are required to elucidate this complex relationship to help improve follow-up and optimize long-term outcomes.

A354

Obesity severity among adolescents presenting for initial evaluation to an adolescent weight loss surgery program

Alicia Wheelington *Dallas TX*[1], Maria Cuccia *Dallas TX*[1]
Children's Medical Center[1]

Introduction:
Rates of severe obesity and prevalence of weight loss surgery (WLS) among adolescents have increased. This study examines initial anthropometrics (i.e. percent of the 95th percentile, %BMI$_p$95) of patients who present for evaluation to an adolescent WLS program.

Methods:
146 ethnically diverse (56.9% Hispanic, 26.7% Non-Hispanic Black (NHB), 14.4% Non-Hispanic White (NHW), 2% Asian) patients (M Age = 15.28, SD = 1.79; 61.6% Female) presented for an initial evaluation to an adolescent WLS program between January 2023 – December 2023. All patients met referral eligibility for WLS of Class II obesity with co-morbidity or Class III obesity.

Results:
13% of patients presented with Class II obesity (120–139%BMI$_p$95). 87% of patients presented with Class III obesity (≥140%BMI$_p$95), with many patients presenting with exceptionally higher %BMI$_p$95: 24.4% with 140–159%BMI$_p$95, 29.9% with 160–179%BMI$_p$95, 14.6% with 180–199%BMI$_p$95, and 18.1%with ≥200%BMI$_p$95. There were no age or sex differences in %BMI$_p$95, but NHW patients had higher %BMI$_p$95 than NHB and Hispanic patients, $F(2, 138) = 3.41$, $p < .05$.

Discussion:
Patients in an adolescent WLS program present with significantly greater obesity severity than specifically recommended by pediatric obesity management clinical practice guidelines. WLS should be readily considered for adolescents when indicated, as early intervention can result in lasting quality of life benefits, and patients seen with exceptionally high weight may face additional barriers to completing WLS. Future research should examine relationships between adolescent obesity severity and WLS completion, and barriers to patient interest and provider referral for adolescent WLS programs.

A357

Measuring Continuous Positive Airway Pressure (CPAP) Compliance in the Preoperative Assessment of Bariatric Surgery Patients

Tristan Seton *Wilkes Barre PA*[1], Shengxuan Wang *Danville PA*[1], Jordan Law *Bethesda MD*[1], Ryan Horsley *Scranton PA*[1], Alexandra Falvo *Scranton PA*[1]
Geisinger Health System[1]

Background:
Because obesity is a risk factor for obstructive sleep apnea (OSA), OSA has been studied as a condition significant to patients undergoing bariatric surgery. Continuous Positive Airway Pressure (CPAP) is the gold standard of OSA treatment, and compliance in the perioperative period is important. This study sought to identify how adjusting the preoperative work up to include CPAP compliance would improve knowledge about patient CPAP use and affect outcomes.

Methods:
Retrospective analysis was performed of patients with a preexisting diagnosis of OSA who underwent bariatric surgery at a single center during an 18 month period. After 12 months, documentation of CPAP compliance was added to the preoperative work up, dividing patients into a study group with documentation and a control group without. Information analyzed included OSA severity, CPAP machine ownership, apnea-hypopnea index (AHI), CPAP compliance, and perioperative outcomes.

Results:
180 patients diagnosed with OSA underwent surgery during the study period, 63 (35%) of whom were in the documentation group. There was no significant difference in baseline characteristics or post operative outcomes between the groups. The intervention group had a mean AHI of 28.1, and 82.6% of the patients owned a CPAP machine. CPAP compliance was documented in 36 of the 63 patients with a median compliance of 50%.

Conclusions:
The addition of CPAP evaluation in the preoperative work up for bariatric surgery patients with OSA did not significantly impact knowledge of CPAP compliance or perioperative outcomes, but it did show an overall poor CPAP compliance in our patient population.

A358

Long term metabolic effects and perioperative safety assessment: A comprehensive study of Laparoscopic vertical gastric clip in metabolic surgery.

Robert CAIAZZO *Lille* [1], Camille MARCINIAK [1], Geoffrey JACQMIN *Brussels* [1], Patrick NOEL *Marseille* [2], Gregory BAUD *France* [1], Mathilde GOBERT [1], NAIMA OUKHOUYA DAOUD *LILLE* [1], Clotilde VINCENT *LILLE* [3], Hélène VERKINDT *LILLE* [1], François PATTOU [1]

CHU Lille, France[1] Qatar[2] CHU Lille, Lille[3]

BACKGROUND

Emerging weight-loss medications pave the way for non-invasive obesity treatment, but sustained benefits require integration of mechanisms like dietary monitoring, mechanical and hormonal restrictions, and malabsorption. Reversible, minimally invasive medical devices are advancing to implement this multimodal strategy, reflecting a comprehensive approach for enduring effectiveness in obesity management.

OBJECTIVES

This retrospective study aims to assess safety, effectiveness, metabolic and hormonal impact, as well as satiety and eating behaviors effects of B-Clamp™ (MID, Dardilly), a reversible vertical clamp reducing gastric volume.

SETTING

University Hospital.

METHODS

Our study (NCT01129297) included 42 patients who underwent B-Clamp™ insertion for severe obesity (BMI>35 and diabetes or BMI>40 kg/m^2) following a minimum of 6 months of specialized nutritional preparation (2019-2022). We investigated the mechanisms of diabetes mellitus during standardized meals test (SMT), where Insulin, GLP-1, and Ghrelin levels were measured. We assessed satiety (DEBQ), food intake, and quality of life (QoL, SF36).

RESULTS

Forty-two patients (BMI: 41.6±5.6) underwent laparoscopic B-Clamp™ placement without severe adverse events. The one-year systematic endoscopy revealed one case of asymptomatic gastric erosion. Three years post-surgery, weight loss in addition to that already achieved during nutritional preparation was 14% (% Total Weight Loss). Food tolerance was excellent, as 93% of patients reporting no vomiting. SMT results demonstrated increased GLP-1 secretion at 60 minutes ($p<0.01$), but no discernible impact on Ghrelin secretion ($p=0.34$). There was a reduction in food intake, an enhancement in QoL, and a positive shift in DEBQ ($p<0.01$).

CONCLUSION

B-Clamp™ seems to be a secure, well-tolerated, and effective restrictive procedure.

A356

Short term outcomes of semaglutide use after bariatric surgery

Claire Terez *Somerset NJ*[1], Derek Berglund *Somerset NJ*[1], Karan Grover *Somerset NJ*[1]
Advanced Surgical and Bariatrics of NJ[1]

Introduction:

With the widespread popularity of semaglutide in the media, its application in the postoperative weight loss surgery patient is clear. However, published results are minimal. We aimed to review our personal experience with using the FDA-labeled semaglutide post-operatively in the setting of weight recurrence after bariatric surgery.

Methods:

11 patients from 2023 were included and retrospectively reviewed including 7 gastric sleeve patients and 4 gastric bypass patients. Monthly dose escalation was followed to reach a maintenance dose of 2.4mg per week by month five. Minimum follow up time was 6 months with median follow up of 9 months.

Results:

Average starting BMI was 36.75 with average excess weight of 73.47lbs. Average BMI change was 5.4 in the sleeve group and 7.6 in the bypass group. %Total weight loss was 15.9% in the sleeve group and 21.3% in the bypass group. %Excess weight loss was 66.6% in the sleeve group and 72.7% in the bypass group.

Conclusion:

Despite the challenges of insurance coverage and supply availability, the patients that used semaglutide in addition to continued diet and exercise achieved outcomes similar to the manufacturer advertised outcome of 15% total weight loss. In our review, gastric bypass patients tended to be more successful when compared to gastric sleeve patients, however our sample size is small and a longer time period is necessary to evaluate full efficacy.

A359

Type 2 Diabetes Mellitus Remission after Bariatric Surgery – A Comparative Analysis of Roux-en-Y Gastric Bypass versus Single Anastomosis Duodenal-Ileal Bypass with Sleeve Gastrectomy (SADI-S)

Jack Sample *Rochester MN*[1], Amit Surve *South Salt Lake City UT*[2], Romulo Lind *Orlando FL*[3], Karl Hage *Rochester MN*[1], Noura Jawhar *Rochester MN*[1], Muhammad Ghanem *Orlando FL*[3], Walter Medlin *Salt Lake City UT*[2], Daniel Cottam *Salt Lake City UT*[2], Andre Teixeira *Orlando FL*[3], Omar Ghanem *Rochester MN*[1]

Mayo Clinic Rochester[1] Bariatric Medicine Institute[2] Orlando Regional Medical Center[3]

Introduction:

Bariatric surgery procedures with both restrictive and malabsorptive mechanisms have shown favorable type 2 diabetes mellitus (T2DM) remission rates. Historically, the Roux-en-Y gastric bypass (RYGB) has been the most commonly performed of such procedures. We sought to compare T2DM outcomes in patients undergoing RYGB versus single anastomosis duodenal-ileal bypass with sleeve gastrectomy (SADI-S).

Methods:

We performed a multicenter retrospective review of patients who underwent RYGB or SADI-S between 2008-2023. Patient demographics, weight loss outcomes, and T2DM remission were reported. An unpaired t-test was performed to identify differences in percentage total weight loss (%TWL) between surgical groups. Rates of T2DM remission were compared between groups using a Chi-squared test. Statistical analysis was performed using GraphPad Prism 5.0.

Results:

A total of 612 patients (72.4% RYGB, 27.6% SADI-S) were identified with a mean age of 51.9±11.3 years and body mass index (BMI) of 49.1±9.1 kg/m^2. On average, patients who underwent SADI-S were younger with a greater preoperative BMI (Table 1). All patients had a diagnosis of T2DM at the time of bariatric surgery and 546 (89.2%) had follow-up regarding T2DM remission status. SADI-S demonstrated a greater T2DM remission rate (80.5% versus 48.4%, $p<0.001$) and %TWL at 6, 12, 24, and 60 months (Fig. 1) compared to RYGB.

Conclusion:

RYGB and SADI-S offer excellent weight loss and resolution of T2DM, in which SADI-S may have superior results. Future studies with larger cohorts and longer follow-up are required, particularly with attention to surgical outcomes and safety.

A360

Efficacy and Safety of Magnetic Sphincter Augmentation After Sleeve Gastrectomy

Derek Berglund *Somerset NJ*[1], Andrew Wassef *New Brunswick NJ*[1], Claire Terez *Somerset NJ*[1], Karan Grover *Somerset NJ*[1], David You *Somerset NJ*[1], Ragui Sadek [1]
Advanced Surgical and Bariatrics of NJ[1]

Background:
Gastroesophageal reflux (GERD) after sleeve gastrectomy is relatively common and conversion to gastric bypass is sometimes required to alleviate symptoms. Primary magnetic sphincter augmentation (MSA) is a viable alternative to fundoplication in select patients with GERD. A 2015 case report proposed MSA as a safe option for treating GERD after sleeve gastrectomy. The purpose of the current study is to compare efficacy and safety between patients with primary MSA and MSA after sleeve gastrectomy.

Methods:
A retrospective, single-center, review was conducted for patients undergoing MSA or MSA after sleeve gastrectomy from 2018-2023. Pre- and post-operative usage of proton pump inhibitors (PPI) was compared between primary MSA and MSA after sleeve groups. Incidence of post-operative complications was also compared.

Results:
67 patients met inclusion criteria (49 primary MSA, 18 MSA over sleeve). Mean follow up was 393 days. Mean body mass index, age, device size, and sex distribution were similar between the 2 groups. There was no significant difference in postoperative PPI requirement between patients with MSA versus MSA over sleeve (27.3 vs. 31.3%, p=0.756). Incidence of postoperative dysphagia (28.6 vs 22.2%), recurrent paraesophageal hernia (4.1 vs 5.6%), and endoscopic dilation (14.3 vs 11.1%) was similar between groups. The rate of device explantation was higher in the primary MSA group although not significant (12.2 vs. 5.6%, p=0.664).

Conclusions:
MSA over sleeve is similarly efficacious to primary MSA in decreasing PPI requirements postoperatively. It has a similar safety profile to primary MSA and rate of device explantation appears to be lower.

A365

The associations between health numeracy, insurance, and MBSAQIP health predictions

John Young *University MS*[1], McCall Schruff *Oxford MS*[1], Danielle Maack *Oxford MS*[2]
University of Mississippi[1] Delta Autumn Consulting[2]

Background:
Psychosocial risk factors impacting MBS outcomes are often unexplored. The current study examined the association of two risk factors (health numeracy and insurance type) with MBSAQIP predictions.

Methods:
141 surgery-seeking patients from North Mississippi Medical Center Bariatric Clinic (BMI M = 47.36 (± 7.46); 76.6% female) were referred for pre-surgical psychological evaluations, where they completed a questionnaire about health numeracy (The Brief Medical Numbers Test; BMNT). Their insurance type (private vs. public) and MBSAQIP-predicted outcomes were also recorded. Correlations among all variables were examined, and regression analyses using BMNT and insurance status as predictors of MBSAQIP scores were also conducted.

Results:
Health numeracy was associated with 30-day complications (r=-.18) and insurance type (r=-.19). Insurance type was associated with numerous variables, including: serious complications (r=.51), 30-day complications (r=.44), hospital readmission (r=.36), reoperation (r=.33), and 1-year weight reduction (r=-.21; all ps<.001). BMNT scores only significantly predicted 30-day complication estimates (b=-.22; p<.001). Insurance type significantly predicted all scores (bs between -11.01-1.13), with public insurance status predicting worse outcomes.

Discussion:
Lower health numeracy was associated with 30-day complications and insurance status was associated with all MBSAQIP outcomes. Given the brevity of the BMNT (4 items), assessment of health numeracy may be clinically feasible, which could facilitate integration of services for patients who score lower. Similarly, programs could be developed for those with public insurance, whose social disadvantages and potentially limited health awareness could impair their long-term outcomes.

A366

Same Day Robotic Dual Anastomosis Duodenal Switch (DS) & Conversions (CS) 10yr Safety Outcome

Myur Srikanth *Federal Way WA*[1], Caroline Roberts *Federal Way WA*[2], Lakshmi Srikanth *Federal Way WA*[1]
Center for Weight Loss Surgery[1] St Francis Hospital[2]

GOAL –

Establish safety of same day robot assisted bariatric surgery (RMBS) in general, especially the more complex DS & CS based on our 2012-2023 experience.

METHODS –

1226 consecutive patients (pts) underwent RMBS from Jan 2012 through Nov 2023 by CWLS at SFH SDS center using standard techniques. Pts who met CWLS same day surgery (SDS) d/c criteria: pain control w/o IV meds, po >300mL, ambulate, Hct & Lytes wnl, w/o complication on CT Abd & Pelvis with PO & IV contrast & adequate support were d/ced within ~2-6h (SDS n=623). Their 30d MBSAIP outcomes were compared with those that stayed overnight(s) (ES n=603). We chose the 2d outcome to test the safety of our SDS d/c criteria.

RESULTS –

There was no mortality. The two groups were comparable wrt weight, BMI, ASA & comorbidities such as diabetes, hyperlipidemia, GERD & OR duration. There were no significant differences between the groups with respect to the 2d or 30d outcomes (Table 1):

There was no significant difference in 2d & 30d 0utcomes between DS, CS, SADI c/w VSG within SDS (Table 2):

There was a strong tendency towards SDS from 55/86 (64%) in 2020 to 63/65 (97%) in 2023

CONCLUSION:

2d and 30d outcomes after RMBS SDS is not different from ES. The majority of DS & CS pts can be d/ced on the day of surgery. Close follow-up cannot be overemphasized.

A369

Sharing and Looking Forward to Bariatric Multidisciplinary Care in a Special Population

Stephanie Garcia *Tulsa OK*[1], Geoffrey Chow *Tulsa OK*[2], Zhamak Khorgami *Tulsa OK*[2], Zoe Davis *Tulsa OK*[2]
University of Oklahoma- Tulsa[1] University of Oklahoma-Tulsa[2]

Background:
The market for weight loss therapy is increasing, and bariatric surgery remains the most durable treatment for obesity. However, clinical outcomes and studies in disadvantaged populations are lacking. The objective of this study was to measure the association between bariatric surgery, genetics, weight, and BMI.

Methods and Findings:
This was a retrospective cohort study using data from June 2021 to 2023 of self-identified Native American identified patients enrolled in a comprehensive bariatric program, and the main outcome measures were decrease in weight and body mass index at one year post surgery. All patients met ASMBS and IFSO recommend bariatric surgery guidelines. 34 patients were included and all available data for the time period was analyzed. The average starting BMI was 48 kg/m2 [range of 34-78 kg/m2], and mean weight 139 kg. Surgical intervention included sleeve gastrectomy 29% gastric bypass 59%, SADI 6%, and revisional surgery 6%. At 1 year after surgery there was an average weight loss of 23%, and a decrease in BMI from 47 to 33 kg/m2. Two patients were diagnosed with Bardet-Biedel syndrome, and these patients had an average weight loss of 31%, and mean decrease of 17.5 points in BMI at 1 year after the index surgery.

Conclusion:
Educating the public in disadvantaged communities on multidisciplinary weight loss and making these options more accessible to these communities can lead to health benefits with improvements and sometimes resolution of comorbidities such as diabetes, obstructive sleep apnea, hypertension.

A361

Environmental Sustainability in Bariatric Surgery: A Systematic Review

May-Anh Nguyen *Boston MA*[1], Souheil Adra *Boston MA*[1]
Beth Israel Deaconess Medical Center[1]

Purpose:

Minimally invasive surgical (MIS) techniques are the gold standard for bariatric surgery. However, this comes at an environmental cost with a high carbon footprint. With climate change as an imminent global threat, this systematic literature review aims to elucidate the current carbon footprint of MIS and summarizes comprehensive sustainability initiatives relevant to bariatric surgery.

Methods:

The systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. PubMed, Ovid MEDLINE and Embase databases in addition to a manual search were utilized in the search strategy, looking at articles from 1980 to December 2023. The search strategy included carbon footprint, environmental sustainability, laparoscopy, robotic, MIS, and bariatric surgery. Two investigators independently performed abstract and full-text reviews.

Results:

Of the 3927 abstracts identified, 16 articles were selected after appraisal based on relevance, inclusion, and exclusion criteria looking at both robotic and laparoscopic procedures. The most significant contributors to MIS carbon footprint were anesthetics, energy consumption, device packaging, and single-use surgical instruments such as surgical staplers and robotic surgery equipment.

Conclusion:

Climate change is a public health crisis. There is a great paucity and need for scientific data published evaluating the environmental impact of bariatric surgery. From a surgical standpoint, targeted sustainability recommendations include surgical equipment procurement, lean operating room, energy use interventions, and waste reduction initiatives in collaboration with hospital stakeholders and medical technology industry.

A371

Gastroesophageal Reflux Disease after Sleeve Gastrectomy: A Quality Improvement Project

Katrina Roy *Colorado Springs CO*
Penrose-St. Francis Health Services

Gastroesophageal reflux disease (GERD) is a known complication/side effect of the sleeve gastrectomy. Starting at the end of 2021/beginning of 2022, our bariatric surgeons started to notice an increase in the number of patients presenting after a sleeve gastrectomy with symptoms of GERD. Due to the increasing number of patients being seen within our practice immediately following surgery with GERD symptoms, and to help with potential dehydration, emergency room visits, and readmissions, our hospital's Metabolic and Bariatric Surgery Committee decided to initiate a GERD protocol for the bariatric program in order to decrease the number of patients presenting with these symptoms immediately following surgery. In conjunction with the protocol, we initiated a quality improvement project surrounding GERD to help us in better understanding what might be some of the root causes of symptoms immediately following surgery. The quality improvement project focused on patient education. In addition, as part of our GERD protocol, we utilized a validated GERD questionnaire, the GERD-Health Related Quality of Life (HRQL) questionnaire, as a tool to help with quantifying GERD symptoms. This questionnaire was given to patients at three different time periods: pre-surgery during their review, 2-week follow-up post-surgery, and 6-8 week follow-up post-surgery. From this, our results seem to indicate that GERD symptoms are largely behavior driven in those first initial weeks following surgery. We also discovered by looking at % excess body weight loss that patients having the highest GERD-HRQL score also tended to lose the least amount of weight in those first weeks.

A373

Analyzing the use of Glucagon like peptide-1 agonists prior to endoscopy in bariatric patients

Allyson Daly *Wilkes-Barre PA*[1], Jason Stanton *Danville PA*[1], Alexandra Falvo *Scranton PA*[1], Craig Wood *Danville PA*[1]
Geisinger[1]

Background:
The glucagon like peptide-1 (GLP-1) agonists have become popular medications for use in diabetes management and as an adjunct for weight loss. The impact of these medications on pre-operative patients, specifically regarding the risks associated with anesthesia administration and food retention was previously unknown. This study evaluates the impact of GLP-1 agonists on disrupting an esophagogastroduodenoscopy (EGD) due to food retention in pre-bariatric patients.

Methods:
The research group consisted of 576 adult patients who had an EGD within one year of bariatric surgery during years 2019 to 2023. Study groups included those who used a GLP-1 agonist within ninety days of their EGD (n=45) and those who had no use of GLP-1 agonist for one year prior to EGD (n=531).

Results:
The primary outcome evaluated was food retained in the stomach as evidenced by EGD. The study cohort included 83% female, mean age 42.8 years, mean BMI 46.2 kg/m2, and 27% had diabetes. Of the 576 EGDs, there were 5.6%. Percent with food retained in the stomach was higher in the GLP-1 group (16% vs 3%, p=0.0008). When adjusted for age, sex, race/ethnicity, BMI, and diabetes, those with GLP-1 use were 5.8 times more likely to have food in stomach (OR=5.81, 95% CI=[1.95, 17.31], p=0.0016).

Conclusion:
This study confirms that newly updated guidelines for pre-operative diet restrictions within patients taking GLP-1 agonists are appropriate.

A375

Damage Control Assessment & Management of Short Bowel Syndrome Status Post Roux-en-Y Gastric Bypass

Joseph Greene *Rockville MD*[1], Abiola Adesina *RESTON VA*[2]
Reston Hospital Center[1] Capital Surgical Associates[2]

The teaching points for this presentation will be based on the case of a 72-year-old male with a distant history of laparoscopic Roux-en--Y gastric bypass who presented with necrotic bowel through an internal hernia, which was resected by the acute care surgery service. With the patient in discontinuity, the bariatric surgery service was consulted for damage control assessment and management of his complormised remaining small intestine, and resultant short bowel syndrome. We will discuss damage control strategies for drainage of the limbs of his prior gastric bypass, highlight techniques for perfusion assessment of the remaining bowel prior to definitive abdominal closure, and review the nutritional as well as medication management of his unusual remaining anatomy as a bridge to reestablishing intestinal continuity.

A376

Same Day Discharge Laparoscopic Roux-en-Y Gastric Bypass: A Retrospective Review of Patient Safety Outcomes, Selection Criteria, and The Perioperative Pathway In a Single Institution

Eric Stevens *Orlando FL*[1], Carlos Delgado *Orlando FL*[1], Daniel Farinas [1], Gustavo Bello *Orlando FL*[1]
AdventHealth Orlando[1]

Background:
Given the shift toward outpatient settings for surgical interventions, we seek to evaluate the safety profile of laparoscopic Roux-en-y gastric bypass (LRNYGB) performed with same day discharge (SDD). In this paper, we present an in-depth review of the safety outcomes and patient selection criteria used to perform LRNYGB in a SDD setting at a single institution. This review illuminates the safety considerations inherent in SDD LRNYGB, adding to the growing body of evidence guiding clinicians in optimizing the safe performance of this gold-standard bariatric procedure.

Methods:
Retrospective review of LRNYGB performed by one high-volume surgeon at a single institution between November 2021 and October 2023. All patients underwent LRNYGB with SDD after completing online module-based education. The primary outcome was evaluation of the safety of routinely performing this procedure with SDD. The secondary outcome was to aid in developing a pathway for patient selection and perioperative management.

Results:
In total, 252 cases were reviewed. Of these, 4 (1.59%) of patients were admitted to a hospital within 30 days of discharge. 0.79% of patients required outpatient IV hydration. There were no mortalities. The average BMI was 43.75 kg/m^2. 80.56% of patients were ASA III, and 19.44% ASA II. Common preoperative morbidities included Diabetes mellitus (27.78%), OSA (25.79%), GERD (24.6%), hypertension (37.3%), and hyperlipidemia (24.60%).

Conclusion:
With an established perioperative treatment pathway and judicious patient selection, LRNYGB may safely be routinely performed with SDD. The low rates of readmission underscore the success and feasibility of this approach.

A377
Endoscopic Sleeve Gastroplasty Converted to Roux-en-Y Gastric Bypass

Kassidy Price MD, Pranav Balakrishnan MBBS, Christina Arcand MD, D. Blaine Nease MD FACS
Kassidy Price *Chesapeake OH*[1], Christina Arcand *Huntington WV*[1], Pranav Balakrishnan *Huntington WV*[1], Blaine Nease [1]
Joan C Edwards School of Medicine[1]

We present the case of a 40 year old woman who underwent endoscopic sleeve gastrectomy at a different hospital for BMI 55 and obstructive sleep apnea complicated by a leak needing stenting and EGD with endoscopic suturing. She had reflux as well as postoperative weight gain. She was referred to the bariatric surgery service for evaluation. Preoperatively an EGD was performed revealing sutures, metal fasteners, and a 3cm hiatal hernia. Suture and t fastener were removed.

Intraoperatively, the hiatal hernia was reduced and cruroplasty performed. Peri-gastric tunnel was created and tucked into the esophagus. An Endo GIA stapler was used to divide the stomach and omega loop of jejunum was brought up and a two layered gastrojejunostomy was created. The jejunum was then divided and an anastomosis performed to create roux limb and biliopancreatic limb.

Post operative upper GI showed normal motility without stricture. At one month follow-up, patient had lost 13% excess body weight and her reflux symptoms have resolved. This case highlights the complex decision making involved in the care of a patient with complications arising from endoscopic sleeve gastrectomy and the considerations when revising such advanced endoscopic interventions.

A378

The BariTest, Assessment on a Diverse Multi-Ethnic Pre-surgical Bariatric Patient Population

Johnny Wen 1, Lena Wen (Torrance, CA), Houman Solomon1 (Medical Director Bariatric Wellness Center) and Carolina Mocellin Ghizoni 2
1 Providence Medical Hospital, Torrance, CA,USA 2 Universidade Federal do Parana, Surgical Clinic-Curitiba (PR), Brazil
Johnny Wen *Torrance CA*[1], Lena Wen *Torrance CA*[2], Houman Solomon *Torrance CA*[3], Carolina Mocellin Ghizoni *Curitiba* [4]
Providence Hospital[1] Co Author[2] Providence Medical Hospital[3] Universidade Federal do Parana, Surgical[4]

Background:
Surgical candidates undergo multidisciplinary medical work up, including psychological examinations prior to and after bariatric surgery. The methodology and process however, can vary among clinics. We utilized the BariTest, an instrument published by Ghizoni et al. (2022) which is a 59 item instrument scored on a Likert Scale first studied in Brazil in our population to assist bariatric surgeons for surgical appropriateness.

Results:
We administered the Baritest to our culturally diverse population in the Western Region and studied the 6 constructs (emotional state, eating behavior, quality of life, relationship with body weight, alcohol consumption, and social support. In a prospective study, we thus far, studied 41 patients who are undergoing bariatric surgery. Females (80.5%) > males, Hispanic 56%, Asian 4.9%, Caucasian 7.3 %, African American 17.1%, and other 9.8%. Mean education 13.41, sd 1.9 and total group BMI = 47.21 kg. In order to compare the two measures, the BariTest construct scores were first converted to z scores using published data and then z scores were transformed to T scores.

Discussion:
The BariTest is a reliable instrument measuring psychological readiness of our diverse patient population. We found strong positive correlations between the BariTest and the PAI clinical scales. While BariTest is a shorter measure and requires less time for patients to complete the test, this lends itself to parsimonious assessment, incorporating efficiency and simplicity in examination while providing an accurate and reliable feedback to the bariatric surgical team.

A380

Roux-en…Oh No! Intraoperative Management and Prevention Strategies of Roux-en-O Gastric Bypass

Maha Mourad *Omaha NE*[1], Bedir Akbar *Wyandotte MI*[2], Jack Avedikian *Wyandotte MI*[2], Julie Kim *Omaha NE*[1], Ivy Haskins *Omaha NE*[1], Vishal Kothari *Omaha NE*[1], Corrigan McBride *Omaha NE*[1]

University of Nebraska Medical Center[1] Henry Ford Wyandotte Hospital[2]

Our patient is a 50-year-old woman with a history of open Roux-en-Y gastric bypass 20 years ago who presented with abdominal pain, reflux, and regurgitation over the past year. Previous diagnostic laparoscopy at an outside institution identified Roux and biliopancreatic limbs measuring 50 cm each. Preoperative work-up revealed an enlarged gastric pouch with stasis of contrast on Upper GI, phytobezoar on EGD, and delayed gastric emptying on gastric emptying study. We planned a diagnostic laparoscopy, revision of the gastric pouch, and lengthening of the Roux limb.

Intraoperatively, we identified and labeled each limb with different colored sutures. We resected a portion of the gastric pouch and the entire Roux limb. We measured a new 125 cm Roux limb and formed a Roux-en-O loop, with an anastomosis between the proximal and distal ends of the Roux limb. This occurred in part because our labeling suture for the Roux limb was on the original Roux limb and inadvertently removed with the resected specimen. The O reconstruction was deconstructed and converted to a Y reconstruction. We resected the involved bowel and created an isoperistaltic anastomosis at the distal end of the Roux limb to restore continuity. We subsequently formed the common channel approximately 10 cm distal to the previous anastomosis.

This case highlights the importance of having a defined system for identification and labeling of each limb in Roux-en-Y gastric bypasses. This is particularly true in revisional cases and in cases in which the original bariatric operation was done at a different institution.

A374

Social Vulnerability of Bariatric Patients' Postoperative Outcomes from a Single Community Bariatric Center

Priscilla Lam *Waterbury CT*[1], Nicholas Druar *WATERBURY CT*[1], Santosh Swaminathan *Abington PA*[1], Suraj Panjwani *Waterbury CT*[1], Shohan Shetty *Waterbury CT*[1]
Saint Mary's Hospital[1]

Introduction:
Social Vulnerability Index (SVI) was created to identify at-risk census areas that would benefit from increased emergency services; however, it has since been adopted as a method to understand each patient's potential struggles within the literature. We sought to investigate bariatrics patients' postoperative outcomes in regards to their SVI to identify those who might benefit from increased support.

Methods:
An institutional database was created by retrospectively reviewing patients undergoing elective minimally invasive bariatric procedures from 2020-2021. Demographics reviewed included age, gender, diabetic status, and pre-op body mass index (BMI, kg/m2). SVI was derived from the patient's address at time of surgery; out-of-state addresses excluded. Follow-up at six months and one year, utilization of emergency department (ED) visits, infusion therapy and complication rates were reviewed. Statistical analysis was performed with t-test; a p-value less than 0.05 was considered significant.

Results:
A total of 305 patients met inclusion criteria; 261 (85.6%) were female with an average age of 40.8 (95% CI=39.4-42.2). There was no significant difference in SVI for compliance with follow-up at six months (p=0.5) or one year (p=0.33). Patients who visited the ED did not have a significantly higher SVI (p=0.59) however, patients who required infusion therapy had a statistically higher SVI (0.71 vs 0.88, p=0.03).

Conclusion:
Patients with a higher SVI more often require additional services postoperatively and may benefit from increased social support to improve outcomes following bariatric surgery.

A381

Clinical Significance of Pneumoperitoneum on Postoperative Imaging following Laparoscopic Bariatric Surgery

Michael Furey *Dallas PA*[1], Ryan Clark *Doylestown PA*[1], Mark Mahan *Danville PA*[1], James Dove *Danville PA*[1], Luis Pina *Danville PA*[1], Joseph Nguyen-Lee *Danville PA*[1], Vladan Obradovic *Manlius NY*[1], Benefsha Mohammad *Danville PA*[1], Alexandra Falvo *Scranton PA*[1], Ryan Horsley *Scranton PA*[1], Anthony Petrick *Danville PA*[1], David Parker *Danville PA*[1]
Geisinger[1]

Introduction

Pneumoperitoneum incidentally found on imaging following gastrointestinal surgery can be a challenging clinical phenomenon. No studies have evaluated postoperative pneumoperitoneum after minimally invasive bariatric surgery or the prognostic utility of defining pneumoperitoneum. The primary objective was to evaluate the incidence of pneumoperitoneum after minimally invasive bariatric surgery and imaging signs consistent with leak.

Methods

This is a retrospective study of patients who underwent primary bariatric surgery between July 2002 to December of 2022. CT imaging was obtained on post-operative days 0-13 of 335 patients who underwent laparoscopic bariatric surgery (including Roux-en-Y gastric bypass, sleeve gastrectomy, and duodenal switch). CT imaging with largest area of pneumoperitoneum graded as mild (0-5 mm), moderate (6-10 mm) or severe (> 10 mm).

Results

Univariate analysis shows increasing pneumoperitoneum on CT imaging ($p = 0.023$) and increasing days to post-operative CT scan ($p = 0.001$) were associated with a post-operative leak. Patients with a higher BMI and findings of pneumoperitoneum on CT were associated with a leak ($p = 0.025$). Multivariate analysis showed that pneumoperitoneum on CT, used as ordinal variable (Mild = 1 / Moderate = 2/ Severe = 3), as pneumoperitoneum increases, the risk of leak increases ($p = 0.036$) and increasing days to post-operative CT scan was associated with a leak ($p = 0.039$).

Conclusion

Following laparoscopic bariatric surgery, severe pneumoperitoneum (diameter 6-10 mm) increased the odds of a postoperative leak, and increasing days to post-operative CT scan with pneumoperitoneum present was associated with a leak.

A382

Incidence of Patients on Psychiatric Medications and Their Outcomes Following Elective Minimally Invasive Sleeve Gastrectomy: Retrospective Review of an Institutional Bariatric Database

Priscilla Lam *Waterbury CT*[1], Santosh Swaminathan *Abington PA*[1], Nicholas Druar *WATERBURY CT*[1], Shohan Shetty *Waterbury CT*[1]
Saint Mary's Hospital[1]

Introduction:
With the adoption of Enhanced Recovery After Bariatric Surgery (ERABS) protocols, there is an increasing impetus to identify possible preoperative factors leading to differences in postoperative outcomes and barriers to timely discharge. The prevalence of patients on psychiatric medications undergoing sleeve gastrectomy and their postoperative surgical outcomes are currently unclear.

Methods:
Patients who underwent elective minimally invasive sleeve gastrectomy at a high-volume bariatric program in a community hospital from 2018-2020 were retrospectively entered into an Institutional Bariatric Database. Patients were classified based on their preoperative use of psychiatric medications and their postoperative outcomes were analyzed. A p-value less than 0.05 was considered statistically significant.

Results:
Four hundred and fifty-two patients were analyzed, of which 25% of patients had a preoperative history of use of psychiatric medications. Patients with history of use of psychiatric medications did have a higher however, not significantly increased risk of postoperative nausea (66% vs 59%, p=0.22), no difference in incidence of postoperative emesis (17%), similar length of stay (37 hrs vs 40 hrs) and postoperative complication rate (6% in each group). 30-day readmission rate was noted to be 4%, however, not statistically significant from the 2% in patients not on psychiatric medications (Table1.)

Conclusion:
One-fourth of the patients undergoing elective minimally invasive sleeve gastrectomy were found to have psychiatric conditions requiring prescribed medications. There were no significant differences in outcomes within this cohort of patients from the rest of the study population.

A388

Endoscopic Sleeve Gastroplasty Versus Intragastric Balloon for Management of Obesity: A Meta-Analysis.

Abdul-Rahman Diab *Ocala FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[2], Joseph Sujka *Tampa FL*[2], Christopher DuCoin *Tampa FL*[2]
University of Central Florida / HCA[1] University of South Florida[2]

Introduction:

Endoscopic sleeve gastroplasty (ESG) stands as the latest primary endoscopic intervention for managing obesity. Despite common assumptions regarding its superiority over intragastric balloon (IGB), a scarcity of data-driven evidence exists to substantiate this claim. Our aim was to conduct a pairwise meta-analysis comparing ESG and IGB, a comparison that, to our knowledge, has not been previously published.

Methods:

We conducted a systematic literature review following PRISMA guidelines to identify articles directly comparing ESG versus IGB. Utilizing the random effects model, we employed odds ratios for dichotomous data and mean differences for continuous data as metrics for effect size. Comparison of total weight loss percentages (TWL%) was performed at 1 and 6 months; however, analysis at 12 months was deemed methodologically inappropriate due to the typical removal of IGB at the 6-month mark.

Results:

While incidences of serious adverse events and readmissions were lower in the ESG group, these differences did not reach statistical significance ($p = 0.52$ and 0.83, respectively). ESG demonstrated a higher TWL% at 1 and 6 months, with the difference being significant at 1 month ($p = 0.009$) but not at 6 months ($p = 0.1$).

Conclusions:

To establish more robust conclusions, further studies with larger sample sizes, prolonged IGB placement for 12 months, and randomized double-blinded designs are warranted.

A385

Laparoscopic Conversion of Vertical Banded Gastroplasty to Roux-en-Y Gastric Bypass

Kathleen Ehresmann *Gainesville FL*[1], Pavel Mazirka *Gainesville FL*[1], Jeffrey Friedman *Gainesville FL*[1]
University of Florida - Gainesville, FL[1]

Background:
Vertical banded gastroplasty (VBG) is an uncommonly performed bariatric surgery today. An understanding of VBG anatomy; complications such as dysphagia, poor weight loss, band erosion and gastrogastric fistula; and operative management remains a necessary skill for bariatric surgeons. We present a case of gastrogastric fistula following a remote open VBG managed with laparoscopic conversion of VBG to Roux-en-Y gastric bypass.

Methods:
We use intraoperative video to demonstrate the laparoscopic conversion of a vertical banded gastroplasty to Roux-en-Y gastric bypass for gastro-gastric fistula and weight gain. The patient was informed of the risks and benefits of this operation and consented to the procedure as well as the recording and its publication.

Results:
Using a standard laparoscopic Roux-en-Y port placement, we were able to safely convert a vertical banded gastroplasty to Roux-en-Y gastric bypass with minimal blood loss. The patient had a two-day hospitalization. By one month post-op, she had lost 31 lbs (BMI 42) and had complications of loose stool, diarrhea, and occasional dumping syndrome. By 3 months post-op, she had lost 66 lbs (BMI 37.8) and improvement in dumping symptoms with lower glycemic intake.

Conclusion:
Vertical banded gastroplasty can safely be converted to a Roux-en-Y gastric bypass using a standard laparoscopic Roux-en-Y port placement.

A387

A Target for Intervention: Poor Adherence to Follow-Up after Bariatric Surgery in Adolescents and Young Adults

Curry Sherard *Charleston SC*[1], Aaron Lesher *Charleston SC*[1], Mary Kate Bryant *Charleston SC*[1]
Medical University of South Carolina[1]

Introduction:
Nonadherence to follow-up after bariatric surgery is associated with lower long-term weight loss. Yet, limited data exists on the youngest bariatric population, adolescents and young adults (AYA), who experience life changes that can interrupt follow-up. This study compared follow-up adherence between AYA and assessed the impact of follow-up interruption on weight loss.

Methods:
Using an institutional registry, we retrospectively reviewed adolescents (age 14-19) and young adults (YA)(age >19-31) who underwent bariatric surgery between January 2018 and May 2023. Primary outcome was follow-up compliance (1,3,6,12,18,24 months). Operations occurring <2 years ago were excluded from respective time points.

Results:
Of 79 (23.9%) adolescents and 251 (76.1%) YA, median preoperative BMI was higher in adolescents (51.0 [45,57] vs. 48.6 [43,54], p=0.003). Median total body weight loss percentage (%TBWL) was greater in YA up to 6 months postoperatively (24% [21,27] vs. 21% [15,26.5], p=0.025) but did not differ afterward. Median missed follow-up appointments were similar between adolescents (3 [2,4]) and YA (3 [1,4]). Adolescents were more likely to be lost to follow-up at 6 months (41.1% vs 16.7%, p=0.001). At 12 months, 73.3% of adolescents and 62.8% of YA were lost to follow-up (p=ns), which grew to 92.3% and 85.9% at 2 years (p=ns).

Conclusions:
Clinic adherence in the post-bariatric AYA population is poor. While weight loss was similar in AYA, long-term weight loss data is limited to those who follow-up. Identifying when AYA are at risk of lost to follow-up allows for targeted interventions to maximize adherence and improve long-term health.

A390

Weight Loss Velocity Predicts Poor Clinic Adherence in Adolescents and Young Adults after Bariatric Surgery

Curry Sherard *Charleston SC*[1], Mary Kate Bryant *Charleston SC*[1], Aaron Lesher *Charleston SC*[1]
Medical University of South Carolina[1]

Introduction:

Historically, adolescents and young adults (AYA) have poor follow-up after bariatric surgery. We sought to better understand the relationship between lost to follow-up (LTF) and weight loss velocity after bariatric surgery in an AYA population.

Methods:

We analyzed institutional retrospective data from adolescents (age 14-19) and young adults (YA) (age >19-31) who underwent sleeve gastrectomy or gastric bypass between January 2018-May 2023. Total body weight loss (%TBWL) from post-operative visits (30 days to five years) was compared between adolescents and YA. For patients with one-year follow-up, weight loss velocity was stratified into tertiles of %TBWL. Regression analysis was used to compare weight loss and follow-up adherence.

Results:

Median %TBWL at one year was similar between adolescents (n=79, 25.5 [IQR 21.5, 30]) and YA (n=251, 26 [21,33]) (p=0.899), which persisted through four-year follow-up. When stratified into %TBWL tertiles, patients in both age groups were more likely to be lost to follow-up if %TBWL was in the lowest tertile at 6 months (OR [95%CI], 2.42 [1.35-4.37], p=0.023) or at 12 months (7.39 [3.80-14.37], p<0.001). Patients had higher odds (OR 5.61 [1.93,16.28], p=0.001) of %TBWL in the highest tertile at one year if they attended ≥6 dietician visits (pre- or post-operative).

Discussion:

Early identification of patients in the lower tertile of %TBWL at one year may identify candidates who could benefit from added services, particularly nutrition counseling. Further characterization of these populations may identify light touch, telemedicine-derived services that provide long-term weight loss benefit in the AYA population.

A393

Ventral Abdominal Wall Mesh Causing Sterile Abscess

Elliot Toy *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Thomas Xu *Columbia MO*[1], Benjamin Castro *Columbia MO*[1]
University of Missouri[1]

The consensus of timing ventral hernia repair in bariatric surgery patients remains controversial. Outcomes on concomitant versus delayed repair are comparable. Current data suggests mesh infection after ventral hernia repair in bariatric patients is 0-1.9%. We present a 63 year old female patient with a delayed ventral mesh infection. Her initial evaluation was for a chronic abdominal wall fluid collection in the setting of a laparoscopic gastric bypass in 2008. She underwent subsequent ventral hernia repair with laparoscopic intraperitoneal onlay mesh repair. After becoming symptomatic, she underwent CT abdomen and pelvis imaging demonstrating an abdominal wall fluid collection in 2021. Eventually she underwent ultrasound guided aspiration in 2023, with recurrence of symptoms and fluid collection. Repeat imaging identified a 5 x 7 cm epigastric abdominal wall fluid collection. There was no evidence of a recurrent hernia. There was no air seen in the fluid collection and no fistula demonstrated with oral contrast. We performed diagnostic laparoscopy. On laparoscopy, we identified normal gastric bypass anatomy and a large abscess cavity in the epigastrium. Within this collection, we found a free-floating mesh, consistent with a chronic mesh infection. This was removed and a drain left in place. Post-operatively, she had resolution of her symptoms. She had no growth on fluid cultures taken in the operating room. She has no resulting hernia defect on examination. She continues to follow up annually after bariatric surgery. In conclusion, this is a post-bypass patient who developed a sterile abscess after delayed hernia repair, requiring mesh excision.

A394

Concomitant Laparoscopic Sleeve Gastrectomy with or without Hiatal Hernia Repair: A Meta-Analysis

Abdul-Rahman Diab *Ocala FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[2], Joseph Sujka *Tampa FL*[2], Christopher DuCoin *Tampa FL*[2]
University of Central Florida / HCA[1] University of South Florida[2]

Introduction:
There's an increasing consensus favoring the identification of hiatal hernia (HH) during sleeve gastrectomy (SG) and subsequent hiatal hernia repair (HHR) when identified. This study evaluates the safety and incidence of GERD associated with simultaneous SG+HHR surgery compared to SG alone.

Methods:
Following PRISMA guidelines, a systematic literature review was conducted. The random effects model used odds ratios (OR) for dichotomous data and mean differences (MD) for continuous data as effect size metrics.

Results:
SG+HHR demonstrated a significantly shorter length of stay (MD -0.18, 95%CI -0.29 to -0.06, p = 0.003) and significantly lower incidences of de novo (new onset) GERD cases (OR 0.65, 95%CI 0.42 – 0.99, p = 0.04). However, SG+HHR was associated with a significantly higher incidence of readmissions (OR 1.30, 95%CI 1.05 - 1.61, p = 0.02). Additionally, SG+HHR showed non-significant decreases in leaks and bleeding, as well as no significant changes in total weight loss (TWL%) and excess weight loss (EWL%) 12 months postoperatively. There was also a non-significant increase in reoperations associated with SG+HHR.

Conclusions:
SG+HHR appears to be safe and potentially effective in reducing the incidence of de novo GERD. Routine consideration of HHR during SG is suggested.

A396

Bovine Pericardial Strips/Peri-Strips Dry (BPS/PSD) Buttressing Versus No-Reinforcement, Oversewing/Suturing (OS/S), and Seamguard Buttressing (SGB) in Sleeve Gastrectomy: A Pairwise Meta-Analysis of Comparative Studies.

Abdul-Rahman Diab *Ocala FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[2], Joseph Sujka *Tampa FL*[2], Christopher DuCoin *Tampa FL*[2]
University of Central Florida / HCA[1] University of South Florida[2]

Introduction:

The efficacy of most staple line reinforcement methods (SLR), such as Seamguard buttressing (SGB), fibrin gluing, oversewing/suturing (OS/S), and omentopexy/gastropexy, in preventing leaks and postoperative bleeding is supported in the literature. However, the comparative efficacy of Bovine Pericardial Strips/Peri-Strip Dry (BPS/PSD) buttressing against no-SLR and other SLR methods remains unclear.

Methods:

We conducted a systematic literature review following PRISMA guidelines. Utilizing the random effects model, odds ratios were employed for dichotomous data, and mean differences were used for continuous data as effect size metrics.

Results:

In comparison to no-SLR, BPS/PSD buttressing appears to significantly reduce the incidence of postoperative leaks ($p = 0.01$) and bleeding ($p = 0.01$). When compared to OS/S or SGB, BPS/PSD buttressing shows similar lengths of stay and rates of postoperative leaks and bleeding. However, compared to SGB, BPS/PSD appears to be associated with a higher incidence of readmissions ($p = 0.05$) and reoperations ($p < 0.00001$). Similarly, compared to OS/S, BPS/PSD appears to have a higher incidence of readmissions ($p = 0.06$) but not reoperations ($p = 0.10$).

Conclusions:

This study suggests that BPS/PSD buttressing might effectively reinforce the staple line compared to no reinforcement. However, due to study limitations, reliable conclusions, especially in comparing BPS/PSD buttressing with other SLR methods, cannot be drawn. Therefore, further research in this area is strongly recommended.

A395

The Role of Resting Energy Expenditure in Weight Loss Amongst Adolescents Following Bariatric Surgery

Patil Kavarian *Palo Alto CA*[1], Linda Koh *Palo Alto CA*[1], Marwa Abu El Haija *Palo Alto CA*[1], Janey Pratt *palo alto CA*[1], Matias Bruzoni *Austin TX*[2]
Stanford Medicine[1] Texas Childrens[2]

Introduction:
Pediatric obesity currently affects 20% of children and adolescents in the United States. The American Academy of Pediatrics recommends bariatric surgery to treat adolescents with severe obesity. Resting Energy Expenditure (REE) is the metabolic rate required to maintain an individual's vital physiological functions and can be measured by indirect calorimetry. REE has been shown to decrease with conventional weight loss methods and increase with Roux en Y gastric bypass. Changes in REE following sleeve gastrectomy remain unclear. In this study, we describe REE profiles in pediatric patients with severe obesity before and after sleeve gastrectomy.

Methods:
After obtaining IRB approval, patients seen at Stanford Children's Adolescent Bariatric Surgery Clinic were approached to enroll in our study from October 2021- May 2023. Data was collected through health records and stored in REDCap. REE measurements were obtained using indirect calorimetry and body composition was measured with Dual Energy X-ray Absorptiometry (DXA) scans. Primary analysis was conducted using student *t test* and correlation analysis using R software.

Results:
29 participants underwent indirect calorimetry and DXA scan prior to sleeve gastrectomy. Lean% body mass was positively correlated with pre-intervention REE cal/kg. There was no significant difference in REE cal/kg before and after patients underwent sleeve gastrectomy. Pre -intervention REE cal/kg did not show a significant correlation with change in BMI after sleeve gastrectomy.

Discussion:
This is the first study examining REE profiles in adolescents undergoing sleeve gastrectomy. Larger longitudinal studies would help investigate the relationship between REE and weight changes following sleeve gastrectomy.

A397

Laparoscopic delivery of a novel enterotomy capture device between self-forming magnetic anastomosis in Roux-en-Y gastric bypass (RYGB) patients for the creation of a side-side jejunal-jejunal anastomosis

Juan Eduardo Contreras *Santiago* [1], Pablo Marin *Santiago* [2], Agustin Guerra Catalano *Santiago* [2], Maria Eugenia Mellafe *Santiago de Chile* [2], Ingrid Darvich *Santiago de Chile* [2]
Clinica Colonial Santiago Chile[1] Clinica Colonial[2]

BACKGROUND:
In previously bi-partion studies, a magnetic anastomosis has demonstrated the ability to reduce anastomosis complications such as leaks and bleeding, however previous delivery methods required the creation an enterotomy with delayed anastomosis creation. We report the procedure feasibility and 30-day results of a first ever use in humans of a novel surgical technique that eliminates the need to close the enterotomies via conventional methods after creating the anastomosis and facilitates an immediate lumen opening between two new coupled self-forming magnets (SFM) in RYGB patients.

METHODS:
Prospective non-randomized single center trial. Surgery consisted in creating an immediate communication in a side-to-side jejunal-jejunal anastomosis intraluminally through a novel temporary enterotomy control and capture (ECC) device. All devices were deployed and delivered laparoscopically.

RESULTS:
A total of 5 patients were recruited, with a mean age of 35.8 (27-43) years, sex-ratio (60 %F) and initial BMI of 44.8±7.6 kg/m^2 .All procedures were performed laparoscopically. There was no conversion or peri-operative mortality. All ECCs and SFMs were delivered and connected with no delivery malfunctions, completed in an anastomosis creation time of **10** minutes (enterotomy to magnet coupling). All ECC and SFMs passed with no retentions. A total of 1 procedure adverse events (AE) occurred due to poor tolerance to oral intake from gastro-jejunal anastomosis inflammation. 0 AE occurred during the 30-day follow up period.

CONCLUSION:
Preliminary and procedure feasibility data of these new surgical techniques and devices suggest the procedures are both feasible and safe in RYGB surgery. Further and longer studies are warranted.

A398

Laparoscopic Gastric Bypass Reversal

Elliot Toy *Columbia MO*[1], Andrew Wheeler *Columbia MO*[1], Norbert Richardson *Columbia MO*[1], Benjamin Castro *Columbia MO*[1]
University of Missouri[1]

Gastric bypass reversal is a rare revisional surgery in bariatrics. The indications are for severe symptoms or recalcitrant pathology. With gastric bypass reversal, the Roux limb may need to be preserved for intestinal length to prevent small bowel syndrome. We present a 38-year-old female patient with a previous history of a laparoscopic gastric bypass one decade ago. Her post-operative course was complicated by failure to thrive, requiring gastrostomy tube placement. She also developed small bowel intussusception requiring laparoscopic small bowel resection. The patient presented to us years later with intractable nausea and weight loss. She was total parenteral nutrition dependent with multiple PICC line complications. Pre-operative upper GI series demonstrated evidence of esophageal reflux, large gastric pouch and tortuosity of the Roux limb. We subsequently performed laparoscopic gastric bypass reversal, small bowel resection, gastric wedge resection and intraoperative endoscopy. A gastrogastrostomy was performed utilizing a linear stapler and double layer sewn closure of the common gastrotomy. The Roux limb was completely excised and removed, after measuring the remaining intestinal length to be greater than 270 cm. Postoperatively she has had resolution of her symptoms and no longer requires total parenteral nutrition. She does not exhibit symptoms of short bowel syndrome. Overall, there remains a paucity of long-term data on the incidence and outcomes of gastric bypass reversal. Published small series suggest improvement of symptoms with low complication profile.

A400

Modified Hill Fundoplication and Hiatal Hernia Repair for Treatment of Refractory Reflux Following Sleeve Gastrectomy

Diana Tang *Chicago IL*[1], Richard Zhu *Chicago IL*[1]
Ascension Saint Joseph Hospital Chicago[1]

Introduction:
Obesity has become a worldwide health epidemic over the last couple decades. With the rise in obesity, use of bariatric surgery has become increasingly common with the sleeve gastrectomy as the most common bariatric surgery performed worldwide. While the sleeve gastrectomy has been efficacious for weight loss, there is increasing concern for the worsening or development of de novo gastroesophageal reflux disease post-operatively. We report a case of a patient with a history of sleeve gastrectomy who had reflux symptoms refractory to medical management but was not deemed an optimal candidate for conversion to Roux-En-Y gastric bypass.

Patient concerns and findings:
42 year old female with history of sleeve gastrectomy who presented with severe refractory gastroesophageal reflux symptoms after 70 pound weight loss.

Intervention and outcomes:
Robotic assisted laparoscopic hiatal hernia repair with modified Hill fundoplication was performed. Follow-up demonstrated near resolution of reflux symptoms.

Conclusion:
Clinicians who have patients with a history of sleeve gastrectomy and refractory reflux symptoms can consider use of a modified Hill fundoplication over other fundoplication techniques or conversion to Roux-En-Y gastric bypass for treatment of refractory reflux.

A402

Demonstration of Robotic Single Fire Stapler for Sleeve Gastrectomy

Aryana Sharrak *Grand Rapids MI*[1], Gregory Fritz *Grand Rapids MI*[2], James Foote *Grand Rapids MI*[2], Joshua Smith *Grand rapids MI*[2], Jon Schram *Zeeland MI*[2], Thomas Martin *MI*[2]
Corewell Health[1] Corewell Health/MSU[2]

Laparoscopic sleeve gastrectomy (LSG) has traditionally been performed with multiple fires of a laparoscopic stapler which can lead to spiraling of the stomach, kinks, or retained fundus. A 25cm stapler was developed in 2016 to perform single fire LSG. Bariatric centers across the country have adopted this for LSG. This video will demonstrate a single fire stapler sleeve gastrectomy using a robotic technique. This case presents a 48 year old male with a past medical history of longstanding class III obesity with a BMI of 55.19 and weight of 161 kg. He has a history of arthritis and restrictive lung disease. He had no previous abdominal surgeries and was a previous tobacco user. The patient had a longstanding history of class III obesity and was interested in pursuing a sleeve gastrectomy. This video demonstrates a robotic sleeve gastrectomy using a single fire stapler. The patient progressed well postoperatively. He tolerated a diet and was discharged home POD0. He was prescribed Eliquis for 28 days posteroperatively due to his elevated preop factor VIII as is consistent with our bariatric department's policy. He was seen in the office POD7 and was tolerating protein shakes and oral intake well. One and a half months postoperatively his weight had decreased 161 kg > 136.5 kg and BMI decreased 55.19 > 45.8. He continues to do well. This case demonstrates that a single fire stapler sleeve gastrectomy can be done safely and efficiently using a robotic technique.

A401

Robotic Management of Gastric Pouch Perforation within a Hiatal Hernia in a Patient with a Remote History of Roux-en-Y Gastric Bypass: A Case Report

Sioned Kirkpatrick *Fort Worth TX*[1], Portia Schmidt *Fort Worth TX*[1], Prakash Gatta [1]
Texas Health Resources[1]

Roux-en-Y gastric bypass is a common treatment for patients with obesity. Long-term complications include strictures, ulcers, and hiatal hernias. Hiatal hernias can cause serious complications such as necrosis, perforation, or obstruction. Here, we report a minimally invasive surgical (MIS) approach to an intrathoracic gastric perforation due to pouch necrosis.

A 52-year-old male with a Roux-en-Y gastric bypass 17 years prior presented emergently overnight with acute epigastric pain and dyspnea. Computed tomography revealed complete intrathoracic pouch migration into a large hiatal hernia containing free fluid and gas. During an emergent robotic diagnostic laparoscopy with fluorescent cholangiography by an acute care surgeon, a gastric pouch perforation with surrounding necrosis was identified. An advanced foregut surgeon then performed a stapled partial pouch resection with a simultaneous hiatal hernia repair using biologic mesh. The patient was discharged home after 3 days and continues to do well.

Intrathoracic gastric perforations are uncommon with serious complications. Furthermore, pouch necrosis as the etiology in patients with remote bariatric surgical history is rare when compared to marginal ulcers. This is the first case report to our knowledge over 20 years that presents a combination of such pathology managed robotically. We suggest that with early recognition the trans-abdominal MIS approach is a viable option that can avoid the morbidity and mortality associated with open abdominal and thoracic approaches. Additionally, this case demonstrates the benefit of the collaboration between acute care surgeons and foregut specialists as well as the emergent availability of advanced technology.

A403

Reconstruction of a prior gastric bypass with an unusual biliary diversion procedure

Mina Ibrahim *Cleveland OH*[1], Mujjahid Abbas *Cleveland OH*[2]
University Hospitals Medical Center CMC[1] University Hospitals CWRMU[2]

Patient is a female in her 40s with a complex surgical history, including a sleeve gastrectomy a gastric bypass, a revision of her bypass with distalization procedure at outside hospital, who presented with recurrent issues of bilious emesis, nausea, abdominal pain, and malnutrition. She underwent multiple studies and procedures including EGDs, CTAP, HIDA scan, Ph studies and a sphincterotomy of sphincter of oddi dysfunction. Referral indicated severe bile reflux with a short roux limb as well as multiple anastomosis at the JJ on EGD. A diagnostic laparoscopy revealed intricate anatomy, showing a very short Roux limb and BP limb with diverting loop anastomosis from BP limb to the common channel along with a blind end at the JJ. Multiple areas required resection to address the abnormal anatomy. The biliopancreatic limb, Roux limb and jejunojejunostomy were all reconstructed requiring multiple anastomosis and lengthening of both the roux and Biliopancreatic limb. Mesenteric defects were all closed, and endoscopy confirmed the revised anatomy proximally. She also underwent a hiatal hernia repair with diaphragm closure. The patient, having tolerated the procedure well, was discharged on the fifth postoperative day, with resolved preoperative symptoms. This case underscores the challenges of managing complex post-bariatric complications, necessitating intricate surgical interventions to address the anatomical abnormalities contributing to the patient's symptoms.

A404

Stuck in adhesions? Think one anastomosis gastric bypass! Utilizing OAGB as a rescue procedure

Zihan Dong *Chicago IL*[1], Enrique Bujanda-Morun *Chicago IL*[1], Peter Habib *Chicago IL*[1], John Mitko *Chicago IL*[1], Francisco Quinteros *Chicago IL*[1], Rami Lutfi *chicago IL*[1]
Advocate Illinois Masonic Medical Center[1]

This video illustrates the intraoperative decision-making and technical aspects of performing one anastomosis gastric bypass (OAGB) as a revisional procedure for patients with a history of gastric band erosion.

Patient is a 49 year-old female suffering from morbid obesity (BMI 54). She has a history of gastric band erosion, and prior attempted revisional sleeve gastrectomy which was aborted secondary to iatrogenic gastric perforation.

Following preoperative endoscopic confirmation of healed gastric mucosa, she was scheduled for Roux-en-Y gastric bypass. However upon entering her abdomen, hostile small bowel adhesions were encountered around what was discovered to be retained gastric band tubing.

After extensive interloop adhesiolysis and examination of small bowel, we decided that a small bowel anastomosis for jejunojejunostomy for conventional gastric bypass would add significant risk considering the elective nature of this procedure. Therefore, the decision was made to change the plan towards OAGB, avoiding small bowel anastomosis.

A gastric pouch was meticulously created taking into account the dense adhesions in the region of prior iatrogenic gastric perforation and previous band erosion. In this case, using the endoscope as a bougie gave the advantage of guiding the pouch creation under direct vision. The procedure was completed with 150cm biliopancreatic limb and end-to-side gastrojejunostomy with Petersen's defect closure. Patient was discharged next day and has lost 38lbs at 6 weeks without complications.

The video underscores dealing with hostile abdomen with retained tubing and prior band erosion. We also illustrate the advantage of intraoperative endoscopy in guiding decision making in such complex revisions.

A405

Prospective long-term outcomes in patients undergoing laparoscopic sleeve gastrectomy with and without hiatal hernia repair

Eli Monzon Canales *Miami FL*[1], Antoine Ribieras *Miami FL*[1], Nestor de la Cruz-Munoz *Doral FL*[1]
University of Miami[1]

Background
Hiatal hernia (HH), which can be related to GERD, is frequently identified and repaired during laparoscopic sleeve gastrectomy (LSG).

Objectives
To prospectively evaluate the long-term effects of hiatal hernia repair (HHR) during LSG.

Methods
As part of a prospective randomized trial evaluating the role of routine posterior crural inspection during LSG, we analyzed long-term data for an initial cohort of patients undergoing LSG with and without HHR. At time of surgery, patients with anteriorly visible HH underwent HHR followed by LSG. All others were randomized to standalone LSG vs posterior crural inspection with repair of any identified HH, followed by LSG. At minimum 2-year follow-up, outcomes of both groups were compared.

Results
Between November 2019 and June 2020, 100 patients participated in the study and 55 patients provided long-term data. Of these patients, 27 underwent LSG with HHR (81.5% female, 49.7 ± 10.5 years) and 28 standalone LSG (75.0% female, 42.2 ± 11.8 years). At 2 years, weight loss (21.6% ± 11.8% vs 22.9% ± 10%, p=.65) and GERD resolution (60.0% vs 62.5%, p=.89) were similar in those undergoing LSG with and without HHR. Rates of de novo GERD (25.0% vs 33.3%, p=.65) and postoperative antisecretory use (22.2% vs 32.1%, p=.41) were also not significantly different.

Conclusion
Concomitant HHR during LSG is safe and yields similar weight loss and comorbidity resolution as standalone LSG. Performing concomitant HHR appears to lower post operative GERD rates to similar levels as those patients without preoperative hiatal hernias.

A407

Readmission rates following robotic bariatric surgery compared with those of laparoscopic bariatric surgery for patients with BMI <50 vs. ≥50 kg/m2 at a high-volume single center

Ariel Silverman *Santa Monica CA*[1], Karen Coleman *Pasadena CA*[1], Scott Um *Los Angeles CA*[2], Jorge Zelada Getty *Los Angeles CA*[2]
Kaiser Permanente School of Medicine[1] Kaiser Permanente[2]

Background:
The introduction of robotics into bariatric surgery is a relatively recent innovation. There is a growing body of evidence exploring outcomes; however, the literature thus far has been mixed. Importantly, it is not well established how outcomes differ in patients with BMI<50 vs. BMI>50 kg/m^2. This study aims to explore readmission rates after bariatric surgery done robotically compared with laparoscopically in patients stratified by this BMI cutoff at a single center in West Los Angeles between June 2022 and July 2023.

Methods:
In this retrospective cohort study, data were obtained for the outcomes of patients who underwent bariatric surgery at a single center from the hospital database. The patients were operated on by two different bariatric surgeons using robotic or laparoscopic methods. Readmissions rates were compared by procedure in populations with BMI<50 and BMI>50 kg/m^2 in patients who underwent laparoscopic surgery compared to robotic surgery using chi-square analyses.

Results:
For both robotic and laparoscopic RYGB, readmission rates were higher for patients with BMI>50 kg/m^2 compared to those BMI<50 kg/m^2. However, there was no significant difference between readmissions for robotic vs. laparoscopic patients. In patients who underwent sleeve gastrectomy, there was similarly no significant difference in readmission rates between robotic and laparoscopic patients (*Figure 1).* Additionally, complication rates among all procedures were low, with no notable difference between laparoscopic and robotic modalities (*Table 1*).

Conclusion:
Robotics appears to be a safe method for operating on patients with BMI>50 kg/m^2, which typically presents a more challenging operation, when comparing readmission rates.

A406

Early Incarceration of Ventral Hernia after Gastric Sleeve

Zihan Dong *Chicago IL*[1], Enrique Bujanda-Morun *Chicago IL*[1], Peter Habib *Chicago IL*[1], John Mitko *Chicago IL*[1], Francisco Quinteros *Chicago IL*[1], Rami Lutfi *chicago IL*[1]
Advocate Illinois Masonic Medical Center[1]

This video highlights the pre and intraoperative management of an acutely incarcerated ventral hernia in a morbidly obese patient after weight loss from his staged bariatric surgery.
Patient is a 39 year old male with a BMI of 70 who presents with a fat containing ventral hernia, and a decision was made to perform staged bariatric surgery prior to elective hernia repair. Patient had excellent results from bariatric surgery but was readmitted prior to his planned elective repair with a massive incarcerated hernia causing small bowel obstruction.
Given the emergent nature of his presentation, our initial plan was to perform an open ventral hernia repair. Upon further consideration of the patient's body habitus and extensive comorbidities, we were concerned about closing the patient's abdomen without tension and a prolonged hospital course complicated by wound breakdown and dehiscence, so attempted a laparoscopic approach.
After gentle manipulation of the incarcerated bowel and momentum without success, we used the ultrasonic device to open the fascia and widen the defect. We alternated between using the ultrasonic device and gentle traction on the small bowel, eventually enabling us to reduce the entirety of the hernia contents. We chose to perform a primary repair in light of the patient's ongoing weight loss after sleeve gastrectomy, with plan for definitive hernia repair in the future.

A409

Outcomes Following Concomitant Bariatric Surgery with Ventral Hernia Repair are Similar with Robotic and Laparoscopic Approaches

Joseph Sanchez *Chicago IL*[1], Catherine Valukas *Chicago IL*[1], Whitney Jones *chicago IL*[1], Dominic Vitello *Chicago IL*[1], Joanne Prinz *Chicago IL*[1], Eric Hungness *Chicago IL*[1], Ezra Teitelbaum *Chicago IL*[1]
Northwestern University[1]

Introduction:
Robotic surgery has been increasingly utilized in the approach to ventral hernia repairs, as it allows for ease of suturing to the anterior abdominal wall. We explored the outcomes based on surgical approach to concomitant bariatric surgery with ventral hernia repair.

Methods:
This is a retrospective cohort study from MBSAQIP data from the years 2015-2022. Inclusion criteria were adults undergoing sleeve gastrectomy or Roux-en-Y gastric bypass (RYGB) while also undergoing repair of a ventral hernia based on CPT codes. Patients were compared via surgical approach (laparoscopic vs. robotic) for the primary outcome of 30-day post-operative complications, defined as a composite of sepsis, DVT/PE, intubation, anastomotic leak, bleed, UTI, wound infection, renal failure, pneumonia and mortality. Univariable and multivariable logistic regressions were performed for the primary outcome.

Results:
26,961 patients were included, of which robotic surgery was utilized in 16.8% and laparoscopy in 83.2%. Robotic approaches became increasingly common over time with 23% performed in 2022 versus 7.7% in 2015 ($p<0.01$, Figure). Operative time for the robotic approach averaged 26.3 minutes longer than laparoscopic ($p<0.01$). Additionally, patients having robotic surgery were more likely to have a third concomitant procedure (66.6% vs 57.2, $p<0.01$). After controlling for confounders (Table), variables with the greatest odds of developing the composite complication outcome included RYGB, prior surgery, and preoperative anticoagulation therapy; however, the odds of the composite 30-day outcome did not differ between surgical approaches.

Conclusion:
Robotic and laparoscopic approaches to concomitant bariatric surgery and ventral hernia repair have comparable 30-day post-operative outcomes.

A411

Sequential changes in glucose metrics after metabolic-bariatric surgery using a continuous glucose monitoring system in individuals with type 2 diabetes mellitus and obesity

Sang Hyun Kim *Seoul* [1], Han Hong Lee *SEOUL* [2], Dong-Seok Han *Seoul* [3]
Soonchunhyang University Seoul Hospital[1] The Catholic University of Korea[2] Seoul National University[3]

The purpose of this study is to investigate sequential changes in glucose metrics after metabolic-bariatric surgery and differences according to surgical procedure using a CGM system in individuals with T2DM and obesity.

This retrospective study included 26 individuals with T2DM and obesity who underwent sleeve gastrectomy (SG), RYGB, and SG with loop duodenal-jejunal bypass. Intermittent scanned CGM system was applied to each participant before, immediately after and 3 months after metabolic-bariatric surgery.

Mean glucose and %time above range (>250 or 180 mg/dL) decreased immediately after surgery (159.8 ± 35.7, 111.0 ± 14.6, and 108.4 ± 22.7mg/dL, P<0.001; 24.0 ± 15.7, 2.4 ± 3.9, and 4.1 ± 5.4, P<0.001, respectively), and %time in range (%TIR; 70 to 180 mg/dL) increased after surgery (67.4 ± 22.4, 96.4 ± 4.3, and 88.0 ± 15.8, P<0.001). However, %time below range (<70 or 54 mg/dL) and low glucose events significantly increased over time (1.3 ± 4.7, 1.0 ± 2.6, and 6.6 ± 13.8mg/dL, P=0.044; 0.4 ± 0.8, 0.9 ± 2.0, and 4.2 ± 6.1, P=0.001, respectively). In contrast, glucose coefficient of variation decreased sharply immediately after surgery and then returned to baseline level 3 months after surgery (25.2 ± 5.8, 19.2 ± 4.8, and 25.7 ± 8.1, P=0.001). When analyzing the differences in CGM metrics according to the type of surgery, there was no difference between sleeve gastrectomy and bypass surgery group.

The CGM identified improvement of mean glucose and %TIR, distinct changes in glycemic variability over time, and increase of hypoglycemia after metabolic-bariatric surgery.

A412

An Innovative Approach to Laparoscopic Bariatric Surgery: Navigating Through the Challenge of a Large Ventral Hernia.

Nicole Takeda *Fresno CA*[1], Pearl Ma *Fresno CA*[1], Amarita Klar *Fresno CA*[1], Keith Boone *Fresno CA*[1], Kelvin Higa *Fresno CA*[1]
Advanced Laparoscopic Surgery Associates[1]

Navigating around a large ventral hernia laparoscopically poses unique challenges and requires careful planning, skilled surgical technique, and creative problem-solving.

The patient is a 59-year-old woman with insulin-dependent diabetes, hyperlipidemia, hypothyroidism, lupus anticoagulant disorder, a history of non-Hodgkin's lymphoma status post radiation and chemotherapy, and a large, recurrent ventral hernia that had been repaired with a laparoscopic intraperitoneal onlay mesh.

A preoperative work-up was performed, including a PET CT given her history of malignancy. Imaging revealed a large, recurrent ventral hernia containing omentum, small bowel, and colon with a fascial defect measuring approximately 13 x 12 cm. Given the size of her ventral hernia and a BMI of 58.2 kg/m², we opted to proceed with a laparoscopic sleeve gastrectomy. Twenty months later at a BMI of 45.8 kg/m², we completed her single anastomosis duodenoileostomy. Optical entry was performed in the left upper quadrant with a 12 mm trocar. Additional 5 mm ports were placed strategically on the patient's left side in order to reduce the hernia contents. A 12 mm port was placed through the fascial defect, and an additional 5 mm port was positioned in the right upper quadrant in order to run the bowel without risking additional injury. A tension-free, end-to-side, hand-sewn duodenoileostomy was then performed with running 3-0 PDS sutures in two layers posteriorly followed by an interrupted 3-0 PDS single layer anteriorly. The patient tolerated the procedure well with no complications and was advanced to a regular diet in the outpatient setting.

A413

The effect of different bariatric procedures on Obstructive sleep apnea (OSA) patients.

Zvi Perry *Beer-Sheva* [1], Edwa Kowalsky [2], Uri Netz *Beer Sheva* [2], Shahar Atias [2], Itzhak Avital [2]
Soroka University Medical Center, Surgery A[1] Soroka University Medical Center[2]

Introduction:

Laparoscopic gastric banding (LAGB) Laparoscopic single anastomosis gastric bypass (OAGB) are common surgical procedures used in Israel to aid patients living with obesity.

Aim:

Our study aimed to compare the effect of these procedures upon obesity related co-morbidities, mainly Obstructive Sleep Apnea (OSA) and the quality of life of those patients in terms of short- and mid-term outcomes, with an emphasis on post-operative aspects and complications.

Methods:

A retrospective cohort study comparing OAGB and LAGB patients in our follow-up clinics over at least 3 years of follow-up. Data were collected from the patients' medical files, as well as op reports and clinic visits. Patients' demographics, weight loss, postoperative complications, and length of stay, as well as their quality of life as measured by the BAROS scale were compared, as well as OSA questionnaires including STOP-BANG.

Results:

166 patients were enrolled in the study. Of these 32 (19.3%) underwent a OAGB. There were 113 male patients (68.1%) with a mean age of 43.6 years (±12.9).
There were few differences in demographics due to the different nature of procedures (a day procedure for LAGB and 2-3 days of admission for OAGB). But, both BAROS (4.2±2.2 for OAGB vs. 3.9±2.2, p=0.476) and the STOP-BANG showed no significant differences (2.3±1.6 for OAGB vs. 1.9±1.4, p=0.149).

Conclusion:

OAGB and LAGB give a good answer to OSA in patients suffering from obesity. Both are a safe and effective way to control and alleviate the suffering incurred by obesity and specifically those related to OSA.

A414

Food security and CT-based body composition analysis in patients undergoing bariatric surgery

Jeffrey Sizemore *Durham NC*[1], Kirti Magudia *Durham NC*[2], Karenia Landa *Durham NC*[2], Alex Batholomew *Chapel Hill NC*[2], Thomas Howell *Durham NC*[2], Alex Michaels *Durham NC*[2], Deepak Palakshappa *Winston Salem NC*[3], Philip Fong *Durham NC*[2], Jacob Greenberg *Durham NC*[2], Keri Seymour *Durham NC*[2]

Duke University School of Medicine[1] Duke University[2] Wake Forest University[3]

Introduction.

Food insecurity is associated with increased adiposity, obesity-related comorbidities, and lower socioeconomic status. Body composition is commonly measured by bioelectrical impedance; however, artificial intelligence now allows for computed tomography (CT)-based analytical techniques. We hypothesize that food insecurity affects baseline body composition and bariatric surgery outcomes.

Methods.

Fifty-four patients completed a six-item food security survey and underwent abdominal CT prior to bariatric surgery at a single center from 2018-2019. Patients were grouped as either low/very low or high/marginal food security. Body composition analyses were performed using an automated high throughput, CT-based algorithm to calculate cross-sectional area of skeletal muscle, visceral fat, and subcutaneous fat (**Figure 1**). Each patient was matched to previously constructed reference curves by age, sex, and race to generate a *z* score. Patient characteristics and six-month outcomes were compared by t test and chi square.

Results.

In both groups, subcutaneous and visceral fat area were increased compared to population reference curves ($p<0.05$). The 14 (26%) patients who experienced low/very low food security had lower skeletal muscle area and higher subcutaneous fat area ($p<0.05$) than patients without food insecurity (**Table 1**). The two groups had similar weight loss and reduction in obesity-related medications following bariatric surgery.

Conclusions.

Patients with obesity and food insecurity have less skeletal muscle and more subcutaneous fat than those without food insecurity. Despite this, bariatric surgery remains similarly effective regardless of food security, making it a powerful tool for improving the health of patients with obesity with food insecurity and lower socioeconomic status.

A415

Simultaneous Bariatric Surgery and Small-Sized Ventral Hernia Repair Has Low Recurrence Rates and Favorable Weight Loss Success

Padma Vasanthakumar *Brandon FL*[1], Ashley Williams *Tampa FL*[1], Natalie Burkert *Audubon PA*[1], Rahul Mhaskar *Tampa FL*[1], Samer Ganam *Tampa FL*[2], Salvatore Docimo *Coram NY*[3], Ashley Mooney *Tampa FL*[3]

USF Morsani College of Medicine[1] Tampa General Hospital[2] USF Department of Surgery at TGH[3]

Introduction:

Ventral hernias are commonly found in bariatric patients, but there is limited understanding of how repairing the hernia during bariatric surgery affects the procedure's efficacy and recurrence rates. We investigated simultaneous small-sized ventral hernia repair (VHR) at the time of weight loss surgery and its effect on 30-day weight loss outcomes and recurrence.

Methods:

With IRB approval, we retrospectively reviewed 525 patients undergoing robotically-assisted laparoscopic bariatric surgery with and without small-sized VHR (<4 cm) from 2019-2023. We propensity score-matched patients who did and did not receive VHR on age, BMI, and race for sleeve gastrectomy (SG) and on age and history of hypertension for Roux-en-Y gastric bypass (RYGB). We used the Mann-Whitney U test to analyze 30-day weight loss outcomes (p-value<0.05). Ventral Hernia Recurrence Inventory (VHRI) questionnaire and imaging records were used to define hernia recurrence.

Results:

Of 87% VHRI questionnaire respondents, only 6% had recurrence. For SG, median BMI was 41(42±5.2) kg/m^2, and for RYGB, median BMI was 45(47±8.5) kg/m^2. Weight loss at 30 days was greater in patients with RYGB and VHR compared to RYGB alone by 1.0 kg (p=0.01). Weight loss at 30 days in SG with and without VHR was the same (p=0.92). (Table 1)

Conclusion:

Small-sized VHR and bariatric surgery has favorable weight loss success and low hernia recurrence rates; therefore, we recommend considering both procedures simultaneously.

A416

Presentation of Two Robotic Assisted Cases of Adjustable Gastric Band Conversion to Roux-en-Y Gastric Bypass

Maher El Chaar *Allentown PA*[1], Andrew Lin *Allentown PA*[1], Paul Karam *Allentown PA*[1]
St Luke's University Hospital[1]

This is a video compilation of two Robotic Assisted (RA-) cases involving conversion from adjustable gastric band to roux-en-Y gastric bypass in one and two stages depicting difficult dissection and takedown of gastro-gastric imbrication requiring a partial gastrectomy because of chronic slippage and large hiatal hernia.

Case 1: The first patient is a 45 year old female with a laparoscopic adjustable gastric band (LAGB) placed in 2008 who developed intermittent nausea, dysphagia and weight recurrence secondary to chronic band slippage. She underwent band removal and conversion to roux-en-Y gastric bypass in one stage.

Case 2: The second patient is a 59 year old female with LAGB in 2010 who presented with severe reflux and dysphagia. She underwent removal of the LAGB in 8/2021. She did well for a few months but unfortunately presented again with refractory reflux and weight recurrence, workup revealed a large hiatal hernia. She underwent roux-en-Y gastric bypass with hiatal hernia repair on 12/2023. This video shows another difficult dissection because of the large hiatal hernia and migration of gastro-gastric imbrication into the thoracic cavity.

A418

Bariatric Surgery is Contraindicated in Porphyria

Ingrid Schmiederer *Cleveland OH*[1], Nader Estfanous *Cleveland OH*[1], Eileen Arnold *Cleveland OH*[1], Betemariam Sharew *Cleveland Hts OH*[1], Jared Hendren *Cleveland OH*[1], Xiaoxi Feng *Cleveland OH*[1], Ricard Corcelles *Cleveland OH*[1], Nimish Thakore *Cleveland OH*[1], Alan E Lichtin *Cleveland OH*[1], Angelika Erwin *Cleveland OH*[1], Ali Aminian *Cleveland OH*[1]
Cleveland Clinic[1]

Introduction:

Acute hepatic porphyria (AHP) is a rare inherited metabolic disease characterized by acute neurovisceral attacks. While most disease carriers remain asymptomatic, some develop recurrent acute attacks that can be triggered by surgical procedures, certain medications, metabolic disturbances, and negative energy balance, all of which are components of bariatric surgery. Furthermore, the features of acute porphyria attacks mimic surgical complications and as a result, an acute attack in the postoperative period may not be recognized, leading to devastating consequences.

Case Report:

A 62-year-old woman with idiopathic polyneuropathy and obesity presented with recurrent episodes of severe abdominal pain, malaise, and dark urine beginning 2 weeks after she underwent Roux-en-Y gastric bypass. A cause was not established despite comprehensive work-up. After 2 months, patient was bedbound with areflexia, tetraparesis, agitation, hallucinations, and hyponatremia. A qualitative urinary porphobilinogen test was positive, consistent with AHP. Treatment with hematin and givosiran was initiated. The patient was discharged to a rehabilitation facility 3 months after surgery. Molecular analysis revealed a PPOX variant, confirming diagnosis of Variegate Porphyria.

Conclusion:

This case illustrates the importance of including AHP in differential diagnoses in patients who present with postoperative symptoms of unclear etiology, such as abdominal pain, dark urine, neuropathy, and/or hyponatremia. Missed or delayed diagnosis of AHP attacks can lead to significant complications, including death as well as long-term sequelae. Bariatric surgery needs to be considered carefully in patients with known personal or family history of AHP and conservative weight loss approaches in a supervised setting may be preferred.

A421

Social Determinants of Health and Pre- and Post-Metabolic and Bariatric Surgery Patient Engagement

Genna Hymowitz *Centereach NY*[1], Caroline Sanicola *Holtsville NY*[2], Jessica Salwen-Deremer *Lebanon NH*[3], Chelsea Taylor *Baltimore MD*[4], Janelle Coughlin *Baltimore MD*[4], Colleen Schreyer *Baltimore MD*[4]

Stony Brook University[1] Stony Brook Medicine[2] Dartmouth-Hitchcock Medical Center[3] Johns Hopkins Medicine[4]

Social determinants of health (SDOH) may impact the utilization of metabolic and bariatric surgery (MBS). More research is needed to evaluate the relationship between SDOH and treatment engagement pre- and post-MBS. The current study sought to examine relationships between SDOH and undergoing MBS, and SDOH and post-MBS follow-up in a large, racially diverse sample of patients seeking MBS at two academic medical centers. Demographic data and follow-up visit attendance at 1-year post-MBS were abstracted from the EMR. Social Deprivation Index (SDI) was calculated based on the Robert Graham Center's SDI data set, with higher scores indicating greater overall socioeconomic deprivation. Participants (N = 895) identified primarily as women (82.1%) and African American (45.7%) or White (44.2%). Mean age was 42.4 (±11.5) years, and mean BMI was 47.3 (±8.5) kg/m^2. Of the study participants, 572 underwent MBS and 282 did not undergo surgery within a year of their pre-MBS psychosocial evaluation. The SDI was lower for participants who underwent MBS (M = 46.55, ±28.78) compared to those who did not (M = 52.48, ±28.86), t (892) = 2.90, p <.01. This relationship held true when controlling for race (OR = 0.99, 95% CI: .989, 1.00, p<.05). Individuals with a higher SDI were less likely to attend follow-up visits post-surgery (t (541) = 3.141, p <.01). This relationship also remained statistically significant when accounting for race (OR = 0.99, 95% CI: .985,.998, p<.05). Study findings highlight the importance of future research considering the contribution of socioeconomic disparities to patient engagement in MBS.

A422

Volvulus and Intussusception After Gastric Bypass Converted to Duodenal Switch

Majid Chammas *Atlantis FL*[1], Nima Khosravani *Atlantis FL*[1], Sina Yadegarynia *Atlantis FL*[1], Tammy Luan *Lantana FL*[1], Roberta Oslin *Atlantis FL*[1], Uchechukwu Ogbonna *Florida FL*[1], Daniel Garcia *Atlantis FL*[1], Alberto Zarak *South Palm Beach FL*[1], Allison Rice *Atlantis FL*[1]
University of Miami/JFK Medical Center[1]

Introduction:
Duodenal switch (DS) is well known as the most effective and durable bariatric procedure in terms of weight loss and resolution of comorbidities. We present an uncommon complication in a patient with history of laparoscopic Roux-en-Y Gastric Bypass (RYGB) converted to open DS.

Case description:
A 51-year-old malnourished female with history of laparoscopic RYGB in 2000 converted to open DS in 2006 presented with one day of severe abdominal pain, nausea, and vomiting. CT A/P revealed likely internal hernia with dilated jejunal loop. Exploratory laparotomy revealed volvulus of jejunoileal anastomosis with edematous bowel. Reduction of volvulus was performed and TPN was started postoperatively. Patient was discharged on POD7 but returned two days later with diffuse abdominal pain and belching. CT A/P revealed intussusception of distal anastomosis. We then revised the anastomosis by moving the biliopancreatic limb proximally to increase common channel length.

Discussion:
Incidence of intussusception after RYGB is as low as 0.62% but literature on DS is limited. Despite improved weight loss compared to RYGB, DS patients have increased perioperative complications especially in those with hypoalbuminemia as with our patient. Importantly, anastomotic revision and lengthening of the common channel was performed only after resolution of bowel edema and improvement of malnutrition to reduce risk of leak.

Conclusion:
Intussusception is a rare but life-threatening complication of RYGB converted to DS. Revision of the distal anastomosis and lengthening of the common channel may improve surgical outcomes after addressing malnutrition and waiting for bowel edema and thickening to resolve.

A423

Investigating immune and inflammatory phenotypes in adolescents post laparoscopic sleeve gastrectomy for severe obesity: A pilot study

Ana Menendez *Hartford CT*[1], Christine Finck *Hartford CT*[2], Joanne Walker *Farmington CT*[3]
Connecticut children's medical center[1] Connecticut Childrens medical center[2] University of Connecticut[3]

Background:
Adolescents with obesity represent a serious problem. Inflammation and immune dysregulation associated with obesity contribute to associated health risks. This study aimed to investigate immune cell proportions and their acute responses to lipopolysaccharide (LPS) stimulation from samples collected at the time of bariatric surgery. Adipocyte diameter was evaluated as well.

Methods:
Peripheral blood mononuclear cells were isolated from adolescents with a BMI > 95th PC, and controls. Stimulation of isolated PBMCs with 1 μg LPS, and assessment of lineage-specific activation through CD69 expression at 0, 2, and 6 hours was performed. Adipocytes were analyzed for mean area.

Outcomes:
Thirteen samples, 9 individuals with obesity and 4 controls, were analyzed. Adolescents with obesity exhibited a mean BMI of 46.33 kg/m2 (SD +/- 12.29 kg/m2 – mean Z score of 2.6), Adipocyte diameter was greater in samples from adolescents with obesity (mean area of 4874 μm vs 555.3 μm, $P<0.05$) **(Figure 1)**. Following stimulation of PBMCs, CD69+ activation, measured by mean fluorescence intensity, on the surface of B cells and CD4 T cells after the 6 hours was higher in the population with obesity. (Mean Diff. -959.7, with a 95% CI of diff -1640 to -279.5, $P <0.05$) **(Figure 2)**.

Conclusions:
Our cohort exhibited higher adipocyte mean area suggesting physiologic adaption. There was a heightened response from B cells and CD4 cells upon stimulation. This study sheds light on early abnormalities in the pediatric population, indicating an exaggerated immune response that may lead to serious diseases. **Limitations:** Number of samples.

A425

Associations of preoperative personality assessment items on postoperative metabolic surgery weight loss outcomes

Crystal Krause *Omaha NE*[1], Kaeli Samson *Omaha NE*[1], Sarah Maki *Omaha NE*[1], Andrew Ahrendt *Omaha NE*[1], Justin Weeks *Omaha NE*[1], Melissa Leon *Gainesville FL*[1], Ivy Haskins *Omaha NE*[1], Corrigan McBride *Omaha NE*[1], Tiffany Tanner *Omaha NE*[1]
University of Nebraska Medical Center[1]

Introduction

Psychological assessments are an integral part of patient optimization prior to metabolic surgery(MBS). Broadband personality assessments such as the Millon Behavior Medicine Diagnostic(MBMD), are essential tools in the psychological evaluation process. We examined the association between preoperative MBMD psychosocial indicators and the reduction in BMI(ΔBMI) at 6 and 12 months postoperatively.

Methods

We retrospectively reviewed 97 MBS patient records who underwent MBS(60.8% Sleeve Gastrectomy(SG) and 39.2% Gastric Bypass(GB)) and preoperative MBMD at our institution between 2020-2022. Pearson correlations were utilized to assess the relationship between the psychosocial indicators and the ΔBMI($p=0.05$) at each time point. Models with interactions were used to assess if correlations needed to be run separately for each procedure type.

Results

We found a positive correlation at both 6 and 12 months between ΔBMI and the scales of Anxiety-tension(6mos $p=0.04$; 12mos $p=0.02$) and Psych Referral(6mos $p=0.046$; 12mos $p=0.01$) and a negative correlation in ΔBMI with the Confident scale at both time points(6mos $p=0.001$; 12mos $p=0.003$). However, the association between ΔBMI and MBMD scales for Illness Apprehension in the Stress Moderator Domain was different between procedure types at 12 months. In patients who received SG, higher scores for this scale were associated with increased, ΔBMI at 12 months, but this was not observed in the patients receiving GB. This scale refers to the patients' focus on and awareness of changes in their bodies.

Conclusion

Psychological assessments help in preoperative optimization and may be predictive of weight loss outcomes.

A427

First-in-Human Creation of Side-to-Side Compression Anastomosis Using the Biofragmentable Magnet System to Achieve Duodeno-Ileostomy Diversion in Adults with Obesity and Type 2 Diabetes Mellitus: Preliminary Results of the DI Biofragmentable Magnet Study

Michel Gagner *Westmount* [1], David Abuladze *Tbilisi* [2], Levan Koiava [2]
Westmount Square Surgical Center[1] Innova Medical center[2]

The DI Biofragmentable Magnet Study ("MagDI Study") is a first-in-human, proof-of-concept/feasibility study of the Magnet System, MagDI System using the biofragmentable DI Magnet device ("Magnet") as the compression element. This Magnet is a modification to the first-generation device with an all-metal housing and flange made of titanium alloy material and is swallowable. The aims of the study were safety and efficacy.

This procedure was indicated in adults (18 to 65 years of age, inclusive) with obesity (BMI) 30-35 kg/m2 and who have type 2 diabetes mellitus (T2DM defined as HbA1c 6.5%), without previous sleeve gastrectomy, and without a plan to perform a concurrent sleeve gastrectomy.

Since Dec 2022, 9 patients were enrolled, and those 6m of f/up had a mean age of 52.2±3.1 and a BMI of 32.4±0.8 kg/m2, 100% had T2DM with preop glucose of 191.2±25.7 mg/dL, and a mean HbA1c of 8.0+0.6. 100% of patients passed their devices at a mean of 23±1.8 days, almost twice as fast as the previous first-generation full-metal device. At 6 months, a total of 12 adverse events were noted, grade I-II Clavien-Dindo Classification. The BMI had dropped to a mean of 28.0 kg/m2, for a %EWL of 64. The mean glucose had a 32 % drop at 129.3 mg/dL and the HbA1c at 6.4.

In conclusion, the FIM Side-to-Side Compression Anastomosis Using the Biofragmentable Magnet System to Achieve Duodeno-Ileostomy Diversion with Class I Obesity and T2DM is feasible and safe. Preliminarily results demonstrate an efficient decrease in weight and T2DM parameters.

A429

Bridging the Divide: Dual modality endoscopic repair of a gastrojejunostomy dehiscence

Nicole Wong *Portland OR*[1], Farah Husain *Phoenix AZ*[2], Gennadiy Bakis [3], Andrea Stroud *Portland OR*[1], Jessica Yu [1]
Oregon Health and Science University[1] The University of Arizona[2] The Oregon Clinic[3]

A 57-year-old woman with a history of distal Roux-en-Y gastric bypass reversal due to malnutrition initially presented for repeat Roux-en-Y gastric bypass for weight loss. A linear staple gastrojejunostomy (GJ) anastomosis was completed without intraoperative leak. This was later complicated by an acute dehiscence that did not respond to endoscopic stenting, ultimately prompting a GJ surgical revision. On post-operative day five, following robotic revision with handsewn GJ, she was admitted with fever, abdominal pain, and CT scan identified a gastric pouch leak. On endoscopy, a large dehiscence of her GJ (Figure) was deemed too large for isolated placement of a fully covered self-expanding metal stent (FCSEMS). Alternatively, isolated endoscopic vacuum-assisted closure (EndoVAC) therapy was thought to be high-risk for GJ stenosis formation. Therefore, the decision was made to utilize both FCSEMS and EndoVAC. A 23mm x 150mm FCSEMS was placed with the proximal end in the gastric pouch and distal end in the jejunum and affixed with endoscopic sutures. An EndoVAC was placed into the defect alongside the FCSEMS to bridge the dehiscence. The EndoVAC was exchanged every 3-4 days and removed after 20 days and the FCSEMS removed after two months. Follow-up upper GI series showed no further obstruction or leak. Patient was doing well at eight-month follow-up.

A428

Unusual cause of gastric obstruction after reversal of one anastomosis gastric bypass

Authors: Sultanah Bin Gheshayan, Raghad Alaskar, Nada Alhassan, Sultan Alhabdan

Department of general surgery, King Abdulaziz Medical City, Ministry of National Guard-Health Affairs, Riyadh, Saudi Arabia

Nada Alhassan *Riyadh CA*[1], Sultanah Bin Gheshayan *riyadh WY*[1], Raghad Alaskar *Riyadh FL*[1], Sultan AlHabdan *Riyadh* [1]

King Abdulaziz Medical City[1]

A 58-year-old female presented to the clinic with severe reflux symptoms and food regurgitation that developed one year back. The patient reported underwent one anastomosis gastric bypass in 2019 which was reversed 6 months later upon patient's request. Upper endoscopy showed twisting in the mid of the stomach causing narrowing.

Upper gastrointestinal series showed focal gastric antrum luminal narrowing at the site of the gastrogastric anastomosis with partial obstruction. The patient was taken for diagnostic laparoscopy, revision of gastric anastomosis and possible Roux en Y gastric bypass.

We started taking down the adhesions between the stomach and the liver. The greater omentum was covering the gastrogastric anastomosis and adhering to the liver and causing twisting of the stomach along its vertical axis. A sharp angle was noted in the mid stomach due to an adhesive band, that was released. An upper endoscopy was done intra operatively showing patent gastrogastric anastomosis with food particles beyond the anastomosis part indicating that the area of obstruction is distal to it.

At the point of angulation, the scope was passed with difficulty and the twist was seen clearly intra luminally. Decision was made to revise the sharp angulation point by taking a stitch at the anterior wall of the stomach to untwist it. Gastrotomy was made and stapler was introduced proximal and distal to the angle. Patient did well and had a smooth post operative course.

A430

SPECIAL CONSIDERATIONS FOR TRANSGENDER PATIENTS UNDERGOING WEIGHT LOSS SURGERY: A SINGLE INSTITUTION'S EXPERIENCE

Julie Kim *Omaha NE*[1], Maha Mourad *Omaha NE*[1], Corrigan McBride *Omaha NE*[1], Ivy Haskins *Omaha NE*[1], Vishal Kothari *Omaha NE*[1], Tiffany Tanner *Omaha NE*[1], Sean Figy *Omaha NE*[1]
University of Nebraska Medical Center[1]

Background:
The rate of obesity is similar between transgender and cisgender patients. There is limited research on transgender bariatric patients. The aim of this study is to discuss the variables that may impact these patients including long-term weight loss and special psychological considerations.

Methods:
A retrospective chart review was conducted of adult transgender patients who underwent minimally invasive bariatric procedure between 2018-2021, with 2 year follow-up data available. Patients were identified for BMI > 35 using our institution's database. Different variables were studied among trans-male and trans-female patients including excess body weight loss(EBWL), cross sex hormone therapy, perioperative chemical venous thromboembolism(VTE) prophylaxis, and psychosocial assessment.

Results:
A total of 5 patients met inclusion criteria; 3 trans-female patients and 2 trans-male patients. All patients underwent and fulfilled presurgical psychological evaluation. Three patients underwent gastric bypass and two patients underwent sleeve gastrectomy. Average EBWL among trans-female patients was 52.2%, whereas average EBWL among trans-male patients was 51.8%. Average EBWL among sleeve patients was 49.2%, whereas average EBWL among bypass patients was 53.9%. All patients were maintained on their cross sex hormones throughout the perioperative period. All patients received VTE prophylaxis during perioperative period but were not on extended VTE prophylaxis. No patient experienced a postoperative VTE.

Conclusions:
Review of transgender patients who underwent bariatric surgery at our institution demonstrate that they have similar EBWL compared to our cisgender patients at 2 years postoperatively. Further investigation is warranted to determine additional psychological or sex hormone's effect on weight loss success of transgender patients.

A426

Small Bowel Intussusception post Roux-en-y Gastric bypass

Kholoud AlBaqmi *Riyadh* [1], Ali AlZahrani *Riyadh* [2]
King Abdulaziz Medical City[1] King Abdulaziz Medical City - NGHA[2]

INTRODUCTION:

Gastric bypass is the standard procedure for weight reduction. Small bowel obstruction following gastric bypass can be secondary to many reasons. However, Small Bowel Intussusception is a rare complication. It requires a high index of suspicion, a prompt diagnosis, and surgical treatment.

CASE:

Our patient is a 43-year-old female with a past medical history of morbid obesity who underwent laparoscopic Roux-en-y gastric bypass three years prior to her presentation to the ED. She presented with severe generalized abdominal pain for one day with multiple episodes of vomiting.

On clinical exam, her abdomen was distended with generalized tenderness. Her labs showed elevated lactic acid. CT abdomen showed small bowel obstruction secondary to intussusception at the jejunojejunostomy anastomosis with areas of questionable ischemia. The patient was taken for a diagnostic laparoscopy which showed the common alimentary limb to be intussuscepted into the biliopancreatic limb. The bowel was successfully reduced, and it was only congested. There were no masses and the anastomosis looked unremarkable apart from being stretched, so it was not revised. Instead, multiple sutures were taken to anchor the biliopancreatic limb to the Roux limb and to tighten the anastomosis.

The patient was discharged home by postoperative day 2. CT was repeated 30 days later, and it was unremarkable.

CONCLUSION:

Small Bowel Intussusception even though is rare, should be considered as a cause of small bowel obstruction after Roux-en-y gastric bypass and needs immediate surgical intervention to prevent small bowel infarction. However, revision of anastomosis is not always necessary.

A432

Liraglutide effectiveness in preoperative weight-loss for patients with severe obesity undergoing bariatric-metabolic surgery

MANUEL ANDREY FELIX CASTRO *Guadalajara* [1], MARTHA SANCHEZ MUÑOZ *GUADALAJARA* [1], JOSE REYES BLANDON *Guadalajara* [1], HECTOR MATA TORRES *Guadalajara* [1], SAUL FERNANDO VIDRIO CAPACETE *GUADALAJARA* [1], Zuleyma Paulina Bello Ramírez *Guadalajara* [1]
HOSPITAL CIVIL DE GUADALAJARA[1]

Background:
Severe obesity is associated with considerable reduction of wellbeing and life expectancy. People living with severe obesity tend to die 8 to 10 years earlier. Preoperative management of patients living with severe obesity can be challenging and proper weight-loss may help obtain better outcomes and less morbidity.

Objective:
To evaluate whether Liraglutide is effective in promoting preoperative weight loss to reduce morbidity and mortality in severely obese individuals undergoing bariatric procedures.

Methods:
A single-center, prospective before-and-after study was conducted. Adults with a body mass index (BMI) ≥ 48 kg/m2 preparing for bariatric-metabolic surgery received escalating doses of Liraglutide, reaching up to 3.0 mg per day administered subcutaneously over a 3-month period. Weight assessment using bioelectric impedance (BIA) was conducted monthly until week 12. Statistical analysis included descriptive and inferential tests ($p<0.05$).

Results:
Thirty-seven participants (76% female, average age 44 years) were included between July and October 2022. The mean initial weight was 147.4 ± 14.9 kg, significantly decreasing to 139.3 ± 16.8 kg after treatment ($p<0.000$). 94.6% experienced some degree of weight loss, with only 5.40% showing no changes. The average weight loss achieved was 5.46% over the 3-month period.

Conclusion:
Liraglutide demonstrated effectiveness as an adjunct therapy for preoperative weight loss in severely obese patients. These findings suggest its potential in pre-surgical management, potentially enhancing surgical outcomes and reducing morbidity in this patient population

A434

Preoperative Planning for a Patient Previous Endoscopic Aspiration Drainage Device

Christina Arcand *Huntington WV*[1], Pranav Balakrishnan *Huntington WV*[1], Kassidy Price *Chesapeake OH*[1], Semeret Munie *Huntington WV*[1], D. Blaine Nease [1]
Marshall University School of Medicine[1]

As endoscopic weight loss procedures, and endoscopic procedures become more common there will be increasing complexity in further or revision metabolic procedures. Patients will need careful endoscopic evaluation preoperatively of their current anatomy. When first presented to the market endoscopic procedures were seen by some patients as fantastic alternatives to traditional surgery especially percutaneous aspiration drainage devices that were approved for patients with a BMI of 35-55 kg/m2. We have a case report of a patient who underwent placement of a percutaneous aspiration drainage device in 2016 who failed to sustain weight loss and requested to be evaluated for further metabolic surgery. She had undergone removal of the percutaneous device because of complications including persistent, uncontrolled drainage that had failed multiple attempts at endoscopic management. She was now ready to pursue further bariatric surgery and presented to the clinic. Upon standard preoperative EGD, she was found to have sutures and fasteners in the anterior proximal antrum. There is a paucity of data currently available in regards to secondary surgery after endoscopic procedures and this case report highlights how variable placement of some endoscopic devices can lead to challenges in further bariatric surgery.

A435

Roux-en-Y Gastric Bypass is Associated with Increased Postoperative Health Care Utilization and Radiation Exposure Compared to Sleeve Gastrectomy

Charles Hill *Greenville SC*[1], John Scott *Greenville SC*[2], Matthew Baranoski *Clemson SC*[3], Emily Duckworth *Greenville SC*[4], Shanu Kothari *Greenville SC*[5]
USC School of Medicine Greenville[1] Faculty[2] student[3] medical student[4] Faculty, Chairman[5]

Introduction:
The sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) are the predominant bariatric procedures in the U.S. and each exhibit respective weight loss and comorbidity resolution rates, however RYGB carries a moderately higher risk of postoperative complications. We sought to compare the frequency of postoperative Emergency department (ED) visits and CT scans in patients undergoing SG and RYGB.

Methods:
We performed a retrospective review of a prospectively maintained database of adult patients who underwent primary SG or RYGB at an Accredited Bariatric Program between 2015 and 2019. Bivariate comparisons between groups (GB vs SG) were conducted using the Chi-square test for categorical data and Students t-test for continuous data. P-values < 0.05 were considered significant.

Results:
Of the 1624 total patients, the average age was 44 years, 84% were female, 71% were white, and the average preoperative BMI was 46 kg/m2. Operations performed included RYGB (926 cases, 57%) and SG (698 cases, 43%).

Within the 30-day postoperative window, 174 patients (11%) presented to the ED, and were more often RYGB than SG patients (12.3% vs 8.6%, $p = 0.017$). A CT scan was obtained in 49% of ED presentations, again more frequently for RYGB than SG patients (6.1% vs 3.9%, $p = 0.048$).

Conclusion:
Patients with RYGB undergo more postoperative CT scans than SG patients. The increased radiation exposure is considerable in the bariatric patient, and the potential cancer risk should be included in preoperative counseling when discussing RYGB vs SG.

A436

Long-term Outcomes of Repairing Small Hiatal Hernias at Index Sleeve Gastrectomy: A Comparative Study

Mina Ibrahim *Cleveland OH*[1], Mujjahid Abbas *Cleveland OH*[2], Daniel Praise Mowoh *Cleveland OH*[3], Mai Al Khadem *Cleveland OH*[3]
University Hospitals Medical Center CMC[1] University Hospitals CWRMU[2] University Hospital CWRMU[3]

Introduction:
This retrospective study investigated the long-term outcomes of repairing small hiatal hernias (≤2cm) at the time of index sleeve gastrectomy, comparing them to outcomes for larger hernias.

Methods:
A total of 110 patients who underwent hiatal hernia repair and sleeve gastrectomy were analyzed over a five-year follow-up period. Group A included patients with small hiatal hernias, while Group B comprised those with larger hernias.

Results:
Results showed that 80.8% of patients had a hiatal hernia preoperatively. At the 5-year follow-up, 19% of Group A and 31% of Group B required subsequent interventions. However, 25% in Group A continued antiacid medications, with 28% experiencing persistent reflux symptoms of which 46% had reflux symptoms prior. In Group B, 19% continued antiacid medications, and 12% had reflux symptoms, all of whom had symptoms prior to surgery.

Conclusion:
In our 5-year study, repairing small hiatal hernias during the index operation demonstrated favorable long-term outcomes. Group A had lower subsequent intervention rates compared to Group B, yet over 50% in the small hernia group benefited from sleeve with hiatal hernia repair with prior symptoms. Conversely, 100% of symptomatic patients with larger hernias continued to experience symptoms. Addressing small hiatal hernias during sleeve gastrectomy, especially in symptomatic patients, may improve outcomes, potentially reducing reoperation needs and ongoing medical management. Larger hernias may not show similar benefits and could potentially benefit from gastric bypass. Further prospective studies are needed to validate these findings and establish standardized guidelines for hiatal hernia repair in bariatric surgery.

A437

Revision to Re-Sleeve Gastrectomy over Duodenal Switch in a Patient with an Ileal Conduit

Kayla Polcari *Chicago IL*[1], Yalini Vigneswaran *chicago IL*[2], Mustafa Hussain *Chicago IL*[2]
University of Chicago Medicine[1] University of Chicago[2]

Introduction:
Sleeve gastrectomy is the most frequently performed bariatric surgery, though up to 20% of patients require revisional surgery for complications such as weight loss failure and intractable reflux. We describe the case of patient with an ileal conduit who underwent revisional surgery for weight recidivism after primary sleeve gastrectomy.

Clinical Presentation and Indication:
The patient is a 57-year-old female with a history of severe obesity with comorbid insulin-dependent type 2 diabetes, hypertension, hyperlipidemia, coronary artery disease, and venous thromboembolism. Her surgical history includes cystectomy and ileal conduit for a chronic urethrovaginal fistula and a prior sleeve gastrectomy. After an initial 100 pound weight loss, she had recurrence of weight gain and multiple comorbidities. She presented with persistent severe obesity and a debilitating ventral hernia, for which she was recommended to lose weight prior to repair. She proceeded with revisional surgery following unsuccessful weight loss attempts.

Operative Procedure and Post-Operative Course:
The planned operation was a revisional duodenal switch, though the patient ultimately underwent re-sleeve gastrectomy after extensive intra-abdominal adhesions were encountered related to the patient's complex surgical history. Post-operatively, the patient required two endoscopic dilations and short-term distal enteral feeding for PO intolerance caused by a narrowing in the distal gastric body. Within 30-days, her symptoms improved and she was tolerating adequate intake of soft foods.

Conclusions:
While revision to duodenal switch has proven more efficacious than re-sleeve gastrectomy, re-sleeve gastrectomy was more feasible in our patient with an ileal conduit and intra-abdominal adhesive disease.

A438

Does concomitant hiatal hernia with sleeve gastrectomy prevent future interventions related to GERD and hiatal hernia reoccurrence?

Daniel Praise Mowoh *Cleveland OH*[1], Mai Al Khadem *Cleveland OH*[2], Mina Ibrahim *Cleveland OH*[2], Leena Khaitan *Cleveland OH*[2], Mujjahid Abbas *Cleveland OH*[2]
University Hospitals Cleveland Medical Center[1] University Hospitals Cleveland[2]

Surgeons often encounter and repair hiatal hernias during sleeve gastrectomy (SG) to prevent postoperative reflux, hiatal hernia (HH) reoccurrence and GERD progression. This single institutional study aims to examine the long-term GERD-related outcomes after sleeve gastrectomy with concomitant hiatal hernia repair (SG+HHR).

This retrospective study was IRB-approved and included all patients who underwent SG+HHR from 2015 to 2019. Over 5 years, outcomes were monitored for re-operations, imaging, and endoscopic procedures related to GERD and hiatal hernia recurrence. Antireflux medication use was also reviewed.

110 patients underwent HHR+SG. Preoperative EGD was available in 90% (99/110) of patients and 80.8% (80/99) had endoscopic evidence of HH. Hill grade was reported in 62.6% (62/99) patients with Hill Grade ≥ 3 noted in 33.3% (33/99). Mean BMI was 45.9 ± 7.5 (Kg/m2) preoperatively and 34.8 ± 6.8 (Kg/m2) at mean follow-up of 3.9 years. 10% (11/110) of patients had GERD-related reoperations with 45.5% bypass with redo HHR, 36.4% redo HHR, and 18.2% bypass alone. At reoperations, 4/11 patients originally had a Hill grade of ≥ 3 before their index surgery. Preoperative antireflux medication use was reported in 34.5% of patients and increased to 71.8% postoperatively with 87% of patients who were on preoperative medications continuing use at a mean of 3.4 years.

Concomitant hiatal hernia repair at the time of sleeve gastrectomy is durable over at least 3 years. However, many patients continue to need PPI postoperatively with about 10% eventually getting additional operations related to persistent GERD and HH reoccurrence.

A440

Does the timing of hiatal hernia diagnosis preoperatively vs incidentally at index sleeve gastrectomy affect long-term GERD-related outcomes after repair?

Daniel Praise Mowoh *Cleveland OH*[1], Mina Ibrahim *Cleveland OH*[2], Mai Al Khadem *Cleveland OH*[2], Leena Khaitan *Cleveland OH*[3], Mujjahid Abbas *Cleveland OH*[3]
University Hospitals Cleveland Medical Center[1] University Hospitals Cleveland Medical[2] University Hospitals Cleveland[3]

The decision to repair hiatal hernias during sleeve gastrectomy (SG) is made based on preoperative diagnosis or intraoperative findings. This study aims to compare the outcomes after sleeve gastrectomy with hiatal hernia repair (SG+HHR) based on the timing of HH diagnosis.

This IRB-approved study followed patients at a single institution who underwent SG+HHR from 2015 to 2019 over 5 years. Preoperatively diagnosed HH (based on EGD or imaging) were categorized as group A while patients with incidentally found HH at time of surgery were grouped as B. Data was evaluated to differentiate between the two groups based on reoperation rate, antireflux medication use and number of GERD related diagnostic tests performed.

93/110 (84.5%) of patients with SG+HHR had preoperative HH diagnosis while 17/110 (15.5%) had an incidental intraoperative finding of HH. At 5-year follow-up, 9.7% of group A patients had reoperations, 22.6% had EGDs and 28.0% had GERD and HH-related diagnostic tests while group B had 11.8%, 29.4%, and 52.9% respectively. Preoperative vs postoperative antireflux medication use in group A was 31/93 (33.3%) and 67/93 (70.0%) at a mean of 3.3years while group B had 7/17 (41.2%) and 12/17 (70.6%) at a mean of 4.1 years. A comparison of both groups showed no significant difference except for a higher rate of GERD and HH-related diagnostic tests in group B.

GERD-related clinical outcomes after SG+HHR are not affected by timing of hiatal hernia diagnosis before or incidentally at surgery, however, the latter tends to have more GERD and HH-related diagnostic testing.

A442

Duodenal-ileal self-forming magnetic anastomosis in Patients with Inadequate Weight Loss or Weight Regain following Sleeve Gastrectomy: Procedure Feasibility & 30-day outcomes.

Manoel Galvao *Doral FL*[1], Mohit Bhandari *Indore* [2], Andre Teixeira *Orlando FL*[3], Winni Mathur *Indore* [2]

Florida International University College of Medicine[1] Mohak Bariatrics and Robotics[2] Orlando Health weight loss institute[3]

BACKGROUND:

Magnetic anastomosis can potentially reduce anastomosis complications such as leaks and bleeding and reduce complex procedure steps and time to create a safe anastomosis. We report the procedure feasibility and 30-day results of a new surgical technique and new self-forming nitinol magnetic anastomosis procedure (SNAP-PS, GI-Windows Surgical) and delivery devices on post-sleeve gastrectomy patients.

METHODS:

Prospective non-randomized single-center trial. Surgery included creating a side-to-side duodenal-ileal anastomosis approximately 300cm from the IC valve using a new self-forming magnetic (SFM) octagonal anastomosis. The proximal SFM was deployed through the working channel of an endoscope and the distal SFM through a 5mm laparoscopic trocar.

RESULTS:

A total of **04** patients were recruited, with a mean age of **49.5 (33-62) years**, sex-ration **(33.3%)** of **75% female** and initial BMI of **41.7±7.5 kg/m$^{2\cdot}$ The mean Hemoglobin A1c was 12.9±1.0** All procedures were performed using a combination of endoscopy and laparoscopy. There was no conversion or peri-operative mortality. All SFMs were delivered and connected with no delivery malfunctions and completed in an anastomosis creation time of **18** minutes (enterotomy to magnet coupling). **No** procedure adverse events (AE) occurred, and NO AD occurred during the 30-day follow-up period.

CONCLUSION:

Preliminary and procedure feasibility data of these new devices suggest that SNAP-PS procedures are feasible and safe and, based on prior studies, provide a minimally invasive surgical option for patients who need additional weight loss and improved comorbidities. Additional follow-up is required.

A441

Intraoperative Evaluation of Staple Line Integrity and Staple "B" Formation using Indocyanine Green in Gastric Bypass Operation

Helmuth Billy *Ventura CA*[1], Shreyash Pradhan *Ventura CA*[2]
Ventura Advanced Surgical Associates[1] Community Memorial Hospital Ventura[2]

Background

Evaluation of laparoscopic staple lines can be challenging as they are difficult to see once embeded in tissue. Malformed staples or poorly formed staples can affect staple line integrity and are difficult to identify using white light laparoscopy.

ICG can visualize staples that are embedded in tissue. Broken and misshapen staples, missing staples and integrity of the "B" formation can be visualized well with ICG immunofluorescent imaging.

Methods

10 patients undergoing LRYGB had staple lines on the biliopancreatic and alimentary limbs assessed for using ICG. 7.5 mg of ICG was administered intravenously and the staple lines on the the biliopancreatic and alimentary limb were examined for the presence of missing staples, misshapen staples and quality of "B" formation. A single 45 mm white cartridge (Lexington Medical) was used to divide the jejunum. There were no crossing staple lines. White light laparoscopy was subjectively compared to the images seen using ICG for all staple lines

Results

20 staple lines were assessed for quality of staple line formation using ICG imaging. The position of the staple head and the deployment of the legs were visible and assessed in all cases. "B" formation was well formed in all outer row staples. There were no misshapen or malformed staples seen. Middle and inner row staples were more difficult to assess than outer row staples

Conclusion

ICG has potential as an intraoperative imaging modality to assess proper staple line formation and identify misshapen or poorly formed staples.

A439

Validation of Risk of Unplanned Readmission Score for Patients Receiving Bariatric Surgery

John Nguyen-Lee *Danville PA*[1], Raymond Stemrich *Danville PA*[1], James Dove *Danville PA*[1], Craig Wood *Danville PA*[1], Luis Pina *Danville PA*[1], Mark Mahan *Danville PA*[1], Ryan Horsley *Scranton PA*[1], Alexandra Falvo *Scranton PA*[1], Anthony Petrick *Danville PA*[1], Vladan Obradovic *Manlius NY*[1], David Parker *Danville PA*[1], Benefsha Mohammad *Danville PA*[1]
Geisinger Medical Center[1]

Introduction

Risk scores have the potential to be invaluable clinical tools, improving patient safety and overall health outcomes. Few studies have validated EPIC's Risk of Unplanned Readmission Score and its usefulness for bariatric patients.

Methods

This retrospective study included bariatric patients from 2015 to 2022. The EPIC risk of readmission score was calculated and assessed by comparing low (<20%), medium (20-40%), and high risk scores (>40%) to presence of Emergency Department (ED) visits, readmission, reoperation, complication, and length of stay.

Results

The 3772 qualifying patients included sleeve gastrectomy (n=705, 18.7%), gastric bypass (n=2826, 74.9%), and biliopancreatic diversion (n=241, 6.4%). The low, medium, and high-risk groups included 74%, 15%, and 11% of the patients, respectively. Surgery type was not associated with risk group (p=0.149). Higher readmission risk score was associated with more readmissions, ED visits, complications, and extended length of stay (Table 1, $p<0.05$ for each). Readmission risk score was not associated with reoperation.

Conclusion

High preoperative risk scores were more likely to have readmissions, ED visits, complications, and extended LOS. Preoperative readmission risk scores are predictive in identifying patients who would benefit from additional post-op follow-up.

A445

Lifting the Shame and Stigma of Obesity and Obesity Treatment Through Practitioner and Peer Collaboration with Dr. Eric Smith, DO, and April Williams, M. Ed

April Williams *Gig Harbor WA*[1], Eric Smith *Georgetown KY*[2]
BariNation[1] Kentucky Bariatric Institute, Intuitive[2]

Obesity treatment often carries an unspoken burden—shame and stigma. The shame many patients feel prevents them from spreading their wings and treating their disease in the most powerful and profound ways. When practitioners and communities help patients lift this shame, they can have a profound positive effect on their outcomes and those of their bariatric peers. This presentation advocates for a transformative approach in bariatric care, focusing on how practitioners can play a pivotal role in dismantling societal biases and empowering patients to lift the weight of shame associated with obesity and its treatment.

Our discussion will explore the pervasive impact of societal stigma on patients seeking bariatric interventions, recognizing the continued complex emotional layers that can impede progress far beyond their first postoperative year. We will delve into evidence-based strategies that bariatric practitioners can implement to create a stigma-sensitive environment, fostering open communication and trust with their patients.

The presentation will emphasize the importance of reframing the narrative surrounding obesity, positioning it not as a personal failure but as a medical condition deserving of empathy, understanding, and lifelong treatment and care. Through thoughtful education initiatives, fostering a culture of inclusivity, and connecting patients with a meaningful community, practitioners can empower patients to navigate their weight loss journey without the shackles of shame.

As we collectively strive to redefine the narrative around obesity, our abstract invites bariatric practitioners to embrace a compassionate approach, contributing to a future where patients can pursue treatment free from the burden of societal judgment.

A446

Is there an association between internalized shame and body shame with weight loss after metabolic and bariatric surgery?

Kipp Hopper *North Haven CT*[1], Jennifer Ferrand *Wethersfield CT*[1], Dale Bond *Hartford CT*[1], Yin Wu [1], Richard Seip [1], Darren Tishler *Glastonbury CT*[1], Pavlos Papasavas *Hartford CT*[1], Devika Umashanker *Glastonbury CT*[1]
Hartford Healthcare[1]

Background
We have previously shown that patients preparing to undergo metabolic and bariatric surgery (MBS) often experience internalized shame (IS; viewing oneself as bad or inadequate) and body shame (BS; perceiving one's body as being undesirable or unattractive). However, there is limited understanding of how IS and BS relate to weight outcomes after MBS. The present study assessed associations of preoperative IS and BS with 6 month weight loss after MBS.

Methods—
MBS patients completed a 24-item subset of the Internalized Shame Scale (ISS; 0-never to 4-almost always) and a 3-item subset of the Body Shame Subscale (BSS) of the Objectified Body Consciousness Questionnaire (0-strongly agree to 7-strongly disagree) preoperatively. Multivariate regression analysis evaluated associations of ISS and BSS with 6 month total weight loss (%TWL), controlling for patient demographics (i.e., age, gender, race), BMI at preop, MBS procedure, and time between MBS and weight measures.

Results—
Of 146 participants (44.1±11.8 yr, 80.8% female, 67.8% white, 44.9±8.1kg/m^2*)*, 20 underwent Roux-en-Y gastric bypass and 126 underwent sleeve gastrectomy. Among all participants, preoperative BSS (score: 15.0±5.2; beta=0.123, p=0.056) and ISS (score: 57.9±23.9; beta=-0.001, p=0.985) was not related to %TWL[DU1] at 6-month postop.

Conclusions—
Preoperative IS and BS scores were not predictive of weight loss 6 months after MBS. These findings may be reassuring to patients with high BS or IS prior to MBS, suggesting that healthy weight loss is achievable despite prior experiences, perceptions, or behaviors related to body image

A433

Long term weight loss and glycemic control in elderly patients following metabolic surgery

Wan Xing Hong *Elk Grove CA*[1], Gary Grinberg [1], Panduranga Yenumula *Sacramento CA*[1]
Kaiser South Sacramento[1]

INTRODUCTION:

Whether to offer elderly patients (age ≥ 65 years) metabolic surgery remains controversial. This study aims to better quantify benefits that geriatric patients may expect to derive.

METHODS:

This retrospective study utilized a database across five bariatric surgery centers in an integrated healthcare delivery system. 415 patients aged 65 or above who underwent sleeve gastrectomy or gastric bypass between 2009-2020 were included. The primary outcome was resolution of obesity at 1-, 3-, 5- and 10-year time points. The secondary outcome was glycemic control after surgery.

RESULTS:

The average preoperative BMI for elderly patients undergoing sleeve gastrectomy was 40.8 (n=276). At one year post-op, 33.1% of patients had remission of obesity. However this decreased to 22.0% by 3 years, 18.9% by 5 years and 28.1% at 10 years. The average preoperative BMI for gastric bypass was 40.1 (n=132). At one year post-op, 61.4% of those patients were no longer obese. This decreased to 47.2% at 3 years, 37.6% at 5 years and 51.0% at 10 years. At 10 years, 43.9% of patients who underwent sleeve gastrectomy and 72.5% who underwent gastric bypass maintained ≥50% excess body weight loss. A higher proportion of elderly patients undergoing gastric bypass were diabetic (HA1c ≥ 6.5%) preop compared to sleeve gastrectomy (41.7% vs 23.9%) and there was a higher trend towards diabetes resolution in patients undergoing gastric bypass though this was not statistically significant (p=0.19).

CONCLUSION:

Metabolic surgery offers a cure for obesity and resolution of associated comorbidities in a subset of geriatric patients.

A450

Weight Loss and Resolution of Obesity Related Comorbidities Following Bariatric and Metabolic Surgery in Late Adolescence

Wan Xing Hong *Elk Grove CA*[1], Gary Grinberg [1], Panduranga Yenumula *Sacramento CA*[1]
Kaiser South Sacramento[1]

INTRODUCTION:

This study seeks to answer the question of whether patients derive long term benefit from receiving surgical management of obesity early in life.

METHODS:

134 patients aged 18-21 at time of surgery, who underwent sleeve gastrectomy or gastric bypass between 2009-2022 were included. The primary outcome was weight loss at 1-, 3-, 5- and 10-year time points. The secondary outcomes were glycemic control in all patients and resolution of PCOS in female patients after surgery.

RESULTS:

The majority of patients in this cohort were female (91.8%). The average preoperative BMI was 42.2. At one year post-op, 74.6% of patients had lost $\geq$50% of their excess body weight (n=134). However this decreased to 59.7% by 3 years, 46.0% by 5 years and 38.1% at 10 years. Similarly, whereas 47.8% of patients had remission of obesity at 1 year, only 37.0% were in remission at 3 years, 23.0% at 5 years and 21.4% at 10 years. Promisingly, none of the patients with prediabetes (A1c > 5.7%) progressed to diabetes and all had subsequent improvement in glycemic control. Out of the female patients, 27.6% had a diagnosis of polycystic ovarian syndrome at the time of surgery. 2/34 had documented resolution post-surgery and 14/34 went on to have children later on in life.

CONCLUSION:

Metabolic surgery has the potential to ameliorate obesity and related comorbidities for a proportion of patients undergoing surgery at a young age though life-long support is likely needed to help attain the full benefit of surgery.

A452

Impact of non-transient mobility limitations on safety and efficacy of metabolic surgery

Wan Xing Hong *Elk Grove CA*[1], Gary Grinberg [1], Panduranga Yenumula *Sacramento CA*[1]
Kaiser South Sacramento[1]

INTRODUCTION:

The dilemma of whether to operate on patients with poor functional status is especially relevant to metabolic surgery, where the primary end goal is weight loss. This study examines first the safety of metabolic surgery in mobility limited patients, defined as requirement for mobility assistive device, and secondly at patient success in achieving sustained weight loss.

METHODS AND PROCEDURES:

This retrospective cohort study utilized a prospectively-collected database of across five bariatric surgery centers. Patients who underwent sleeve gastrectomy, gastric bypass or revisional procedures between 2020-2022 were included. The primary outcome analyzed was post-operative complications in the limited mobility vs non-limited mobility group. The secondary outcome examined was weight loss after surgery.

RESULTS:

Patients from the limited mobility group were significantly more likely to have undergone gastric bypass or a revisional procedure ($p=0.03$) and were more likely to have a post-operative complication compared to patients without mobility issues ($p=0.02$). Patients with mobility issues as a group also had a higher starting pre-operative BMI, and demonstrated less total body weight loss at the 6 and 12 month mark compared to patients without mobility issues.

CONCLUSION:

Patients with non-transient mobility limitations had a significantly higher overall complication rate than patients without mobility limitations. They also demonstrated less weight loss over time.

A453

Surgical outcomes in transition from bariatric fellowship to independent practice

Wan Xing Hong *Elk Grove CA*[1], Theresa Jackson *Silver Spring MD*[2], Gary Grinberg [1], Panduranga Yenumula *Sacramento CA*[1]
Kaiser South Sacramento[1] Kaiser[2]

INTRODUCTION:

We aim to evaluate quality outcomes in the transition period from training to independent bariatric practice.

METHODS AND PROCEDURES:

We utilized prospectively collected databases from two distinct healthcare systems. Cases between August 2021 and July 2022 were performed by a bariatric fellow who subsequently transitioned to independent practice in August 2022. Data obtained included patient demographics, post-operative complications, Emergency Department (ED) visitations, and readmissions.

RESULTS:

772 patients who underwent gastric bypass, sleeve gastrectomy and revisional procedures between August 2021 and September 2023 were included. The average starting pre-operative BMIs (43.9 vs 44.6, p=0.13)) and age (43 vs 44, p=0.20) of patients were not significantly different across the fellowship and independent practice cohorts. There was a higher proportion of technically difficult cases performed during fellowship than during transition to independent practice (sleeve versus gastric bypass or revisional procedures) ($p < 0.01$). While there were more Clavien-Dindo Grade I complications in the transition to independent practice cohort, there was a lower rate of serious complications overall during the transition to independent practice year, with more Grade III+ complications seen during fellowship ($p<0.01$).

CONCLUSION:

Fellowship involved significantly more exposure to technically challenging cases compared to transition to independent practice. While there was a higher rate of patient complications during fellowship year, this might be correlated to the higher proportion of complex cases as the majority of grade 3+ complications incurred during fellowship were associated with revisional or gastric bypass procedures.

A455

SINGLE ANASTOMOSIS DUODENO-ILEAL BYPASS (SADI) FOR FAILED VERTICAL BANDED GASTROPLASTY.

María Eugenia Ossola Revilla *Madrid* [1], Mirko Sajonia-Coburgo *Madrid* [1], María Elia Pérez Aguirre *Madrid* [1], Antonio Torres *Madrid* [1], Miguel Rubio-Herrera *Madrid* [1], Óscar González López *Barcelona* [2], Amador García Ruiz de Gordejuela *Donostia* [3], Servando Fernández Díez *Madrid* [1], Andrés Sánchez-Pernaute *Madrid* [1]
Hospital Clínico San Carlos[1] Hospital Vall d' Hebron[2] Hospital Vall d'Hebron[3]

Background:
Vertical banded gastroplasty (VBG) has fell out of favor these days due to disappointing mid and long-term outcomes and high rates of revisional surgery. Traditionally, Roux-en-Y gastric bypass has been the procedure of choice to convert a failed VBG. Nevertheless, complications related to this technique have led to search a different procedure that preserves the former surgery with the additional benefit of weight loss and metabolic outcomes.

Methods:
A retrospective review of prospectively collected data from all patients who had undergone revision of VBG to SADI was performed. The data on the symptoms, weight loss, co-morbidities, and complications were collected.

Short term results:
Seven patients (100% female, 55.8 +/- 8.7 years old) underwent revisional surgery. The median preoperative body mass index (BMI) before the VBG was 50.9 kg/m2 (IQR, 54.7-46.2). The minimum median BMI after VBG was 29.4 kg/m2(IQR, 33.5-25.7). The indications for revisional surgery were weight regain in four patients (57%) and complications of prior surgery in three patients (43%) due to stenosis of the gastric band. The median preoperative BMI was 42.9 kg/m2 (IQR, 45.7-30.53). Surgical approach was laparoscopic in all patients. At an average follow-up of 12 months, the median BMI was 37.75 kg/m2 (IQR, 38.9-29.6). The majority of patients had improvement or resolutions of sypmtons after revisional surgery.

Conclusions:
Laparoscopic SADI after failed VBG is a safe and feasible procedure that can provide adequate weight loss and reversal of weight-related co-morbidities.

A458

Race-Based Disparities in Factors Influencing Financial Burden after Pediatric Bariatric Surgery: A Statistical Analysis

Brian Rust *New Brunswick NJ*[1], Sathyaprasad Burjonrappa [2]
Rutgers Robert Wood Johnson MS[1] Rutgers Robert Wood Johnson[2]

Purpose

This analysis seeks to detect racial disparities in pediatric bariatric surgery that would result in an increased cost burden.

Methods

This study used data of adolescent patients from the MBSAQIP database for the years 2018 - 2022 (n = 2378). Cost-increasing factors and BMI closest to the date of surgery were compared among racial groups.

Results

The average days to discharge from hospital admission was highest for Asians and lowest for African Americans. Using statistical pairwise comparisons, the significantly different distributions included White vs Asian and Some Other Race vs Asian.

The average BMI closest to surgery was highest for African Americans and lowest for American Indian/Alaska Native. Significant comparisons included American Indian/Alaska Native vs African American and White vs African American.

Linear regression found that presurgical BMI closest to surgery was negatively correlated with days to discharge date from hospital admission ($R2 = 0.012$, standardized coefficient = -0.108). Using the same method, a higher number of post-operative visits to the emergency department was found to be associated with higher presurgical BMI ($R2 = 0.004$, standardized coefficient = 0.063).

The average postoperative visits to the emergency department was highest for African Americans and lowest for Asians and Native Hawaiian/other Pacific Islander. Significant pairings included White vs African American and African American vs Some Other Race.

Conclusions

There are observed racial differences among groups. Higher preoperative BMI is associated with increased ED visits but decreased inpatient length. Higher preoperative BMI may be a factor increasing burden on families.

A457

Indications and Outcomes of Endoscopic Gastric Pouch Plications/Revisions After Bariatric Surgery: An Analysis of the MBSAQIP Database

Juan Barajas-Gamboa *Abu Dhabi* [1], Melissa Wills *Cleveland OH*[2], Gustavo Romero-Velez *New York NY*[2], Hemn Qader [2], Andrew Strong *Cleveland OH*[2], Salvador Navarrete *Cleveland OH*[2], Ricard Corcelles *Cleveland OH*[2], Carlos Abril *Abu Dhabi* [1], Juan Pablo Pantoja *Abu Dhabi* [1], Alfredo Guerron [1], John Rodriquez *cleveland Ohio*[1], Matthew Kroh *Cleveland OH*[2], Jerry Dang *Cleveland OH*[2]

Cleveland Clinic Abu Dhabi[1] CLEVELAND CLINIC[2]

Introduction:

Endoscopic gastric pouch plications/revisions (EGP-PR) have gained popularity as novel approach to manage weight-related difficulties or postoperative complications after bariatric surgery. Unfortunately, data on safety of these revisions is still limited. This study evaluated the 30-day rate of serious complications and mortality of EGP-PR.

Methods:

A retrospective analysis of the MBSAQIP database from 2020 to 2022 was conducted. Patients undergoing EGP-PR were analyzed. The primary outcomes were 30-day serious complications and mortality.

Results:

A total of 1474 patients were included in this analysis. Baseline characteristics are described in **Table 1**. The most common indications for EGP-PR in this cohort included weight gain (71.9%), inadequate weight loss (15.1%), dumping syndrome (5.5%), GERD (4.1%), gastrointestinal tract fistula (1.0%) and others (0.9%). The mean operative time was 41.2 ± 35.2 minutes and the mean hospital stay was 0.35 ± 0.7 days. Postoperative complications comprised readmissions within 30 days (3.1%), serious complications (3.3%), interventions within 30 days (2.5%), bleeding (0.8%), reoperations (0.4%) and a mortality rate of 0%. On multivariable analysis, GERD was independently predictive of serious complications (OR 1.7, 95%CI 0.98 to 3.2, p=0.05) when adjusting for age, sex, BMI, comorbidities, and operative time. No multivariable mortality analysis was conducted as there were no deaths.

Conclusion:

EGP-PR is uncommon with only 1474 procedures reported and weight regain is representing 71.9% of the indications. EGP-PR offers an alternative approach to surgical revision, which appears to be relatively safe. However, data assessment of efficacy and comparison to corresponding surgical revisions is needed.

A462

Indications and Outcomes of Emergency Conversional and Revisional Bariatric Surgery: An MBSAQIP Study

Juan Barajas-Gamboa *Abu Dhabi* [1], Thomas Shin *Boston MA*[2], Gustavo Romero-Velez *New York NY*[3], Andrew Strong *Cleveland OH*[3], Salvador Navarrete *Cleveland OH*[3], John Rodriquez *cleveland Ohio*[1], Ricard Corcelles *Cleveland OH*[3], Matthew Kroh *Cleveland OH*[3], Jerry Dang *Cleveland OH*[3]
Cleveland Clinic Abu Dhabi[1] Brigham and Women's Hospital[2] CLEVELAND CLINIC[3]

Introduction:
Revisional and conversional bariatric surgeries occur in both elective and emergency settings. This study aims to compare the indications for and outcomes of emergency surgeries.

Methods:
The MBSAQIP database was retrospectively analyzed from 2020 to 2022. Patients who underwent emergency revisional and conversional bariatric surgeries were identified and compared with those undergoing similar procedures electively. The primary outcomes were 30-day serious complications and mortality.

Results:
A total of 641 (0.9%) patients underwent emergency revisional (59.9%) or conversional (40.1%) surgery, while 71,548 (99.1%) underwent elective surgery. For emergency revisions, the most common indications were perforation (19.3%), stricture or obstruction (16.7%), and mechanical malfunction (10.9%) compared with elective revisions which were weight gain (45.4%), reflux (12.8%) and inadequate weight loss (12.3%). Sleeve-to-bypass (59.5%) was the most common emergency conversion followed by band-to-sleeve (12.8%) and band-to-bypass (11.7%). The most common emergency revisions were gastric bypass revisions (50.8%) and band revisions (21.1%) while the most common elective revisions were bypass revisions (48.3%), re-sleeve gastrectomy (15.0%), and gastric pouch plications or revisions (11.8%). Emergency conversions had a higher rate of serious complications (9.7 vs 6.2%, $p=0.026$) but similar mortality (0.2 vs 0.0%, $p=1.000$). However, emergency revisions had a higher rate of postoperative bleeding (6.8 vs 1.5%, $p<0.001$), serious complications (6.8 vs 1.5%, $p<0.001$), and mortality (1.3 vs 0.1%, $p<0.001$) (**Table 1**).

Conclusions:
Emergency revisional and conversional bariatric procedures are associated with higher complications compared to elective procedures. These findings underscore the need for heightened vigilance and tailored perioperative strategies in managing these high-risk cases.

A463

Do changes in food and physical activity liking predict weight loss after sleeve gastrectomy?

Connor Montgomery *Hartford CT*[1], Yin Wu [1], Isabel Michalak *Hartford CT*[1], Dale Bond *Hartford CT*[1], Tara McLaughlin *Hartford CT*[1], Godfrey Pearlson *Hartford CT*[1], Michael Stevens *Hartford CT*[2], Valerie Duffy *Storrs CT*[3], Darren Tishler *Glastonbury CT*[1], Pavlos Papasavas *Hartford CT*[1]

Hartford Healthcare[1] Hartford Hospital[2] The University of Connecticut[3]

Background:

Bariatric surgery might change liking (i.e., pleasure for things in the moment) of food and physical activity (PA) in ways that promote weight loss. However, few studies have characterized these changes and their associations with weight loss after sleeve gastrectomy (SG).

Objective:

To evaluate whether postoperative changes in liking of "healthy" and "unhealthy" foods and PA are associated with 1-year percent total weight loss (%TWL) after SG.

Methods:

Participants completed a validated Food Liking Survey rating their liking of 87 foods/beverages, physical/sedentary activities, and pleasant/unpleasant experiences (scale 0-100). Food groups were constructed into a dietary quality index (DQI) based on healthiness. A healthy behavior index (HBI) included all groups in DQI plus the physical activity group. Repeated measures ANOVA, and linear regression were used to examine changes in DQI/HBI and their associations with %TWL.

Results:

Fifty-seven participants (82% female, mean age 42.2 years, BMI 45.3) completed the FLS pre- and one year postoperatively. There were significant changes in liking of fats (-2.84, p=0.037), sweet foods (-4.67, p=0.003), sweet drinks (-6.26, p<0.001), refined carbohydrates (-6.36, p<0.001), alcohol (-6.44, p=0.031), and PA (+6.82, p<0.001). Postoperative increase in HBI was associated with %TWL after controlling for demographics and baseline BMI (n=52, p<0.05, β=0.295).

Conclusion:

Increase of HBI reflected by decreased liking of "unhealthy" foods and increased liking of PA is associated with greater %TWL after SG. Additional research is needed to identify mechanisms of postoperative changes in liking and how best to target them to optimize weight loss and health outcomes.

A464

Bariatric Surgery and the Gut Microbiome: Current Evidence and Clinical Implications

Kristine Steffen *Moorhead MN*[1], Dale Bond *Hartford CT*[2], Alicia Sorgen *Charlotte NC*[3], Ian Carroll *Chapel hill NC*[4], Leslie Heinberg *Cleveland OH*[5]
North Dakota State University[1] Hartford Hospital[2] University of North Carolina Charlotte[3] University of North Carolina Chapel Hill[4] Cleveland Clinic[5]

Introduction:
Data on the relationship between Metabolic and Bariatric surgery (MBS) and the composition of the gut microbiota have increased recently. Data show consistent and compelling changes in the gut microbiota following bariatric surgery, and data also suggest a relationship between bariatric surgery outcomes and the degree to which the microbiota change. The role of the gut microbiota is also being explored in post-MBS nutrition, physical activity, behavior, cognition, and substance use.

Methods:
A review of the recent literature as well as an overview of previously presented and published findings from the authors' own prospective, longitudinal *Biobehavioral Trial* will be discussed. The presenters will address evidence-based perspectives from their own work and the literature on future clinical implications of the gut microbiota work.

Results:
Data continue to accumulate suggesting that bariatric surgery has a consistent microbial signature and that robust changes occur following surgery. Data also suggest that these changes may be important in terms of predicting subsequent weight outcomes. The Proteobacteria phylum, in particular, appears to be increased. Increasing data from other populations suggest that the gut microbiota may impact the risk for substance use, mood disorders, nutrition, physical activity, and cognitive functioning, all of which may be of relevance to the MBS population.

Discussion:
The gut microbiota is dramatically changed following MBS and these changes may impact not only weight, but also other important physical, psychological and behavioral outcomes. Implications for personalized medicine, including prevention and intervention will be discussed.

A470

Erasing Race? Bias in data collection & abstraction may mask disparities, exacerbating health inequity

Vanessa Buie *New York NY*[1], Dessislava Stefanova *New york NY*[1], Gustavo Fernandez-Ranvier *New York NY*[1], Daniel Herron *New York NY*[1], Catherine Tsai *New York NY*[1]
Mount Sinai Health System[1]

Introduction:

Racial and ethnic disparities in obesity abound and preoperative bariatric surgery patient attrition remains high. Withdrawal from a program may be exacerbated by racial, economic, education, or other factors. We must identify barriers to attrition and access to care to begin to narrow the health inequities in people with obesity seeking surgical care. We aimed to evaluate the preoperative bariatric attrition within our program for language, racial and economic disparities to identify areas for improvement in programming and outreach.

Methods:

We identified all patients who started an evaluation at our surgical center from 2022 and 2023 and compared the demographics of those who completed surgery and those who did not. Language, religion, insurance status and surgeon language were analyzed.

Results:

A total of 643 patients were included in the study. 323 (50.2%) did not complete surgery and 320 (49.8%) completed surgery. There was no significant difference in preferred language or insurance status between patients who completed surgery and those who did not. Patients categorized as 'Some Other Race' (*n=110, 17.1%*) were less likely to make it to surgery (85(26.35) vs. 25(7.8%). p = <0.001) compared to patients who indicated a race on the intake form. 'Some Other Race' include Bangladeshi, Barbadian, West Indian, Filipino, Honduran, Jamaican and Other, of which 46 (55%) are on Medicare or Medicaid.

Conclusion:

Identifying actionable disparities and barriers to successful completion of bariatric surgery program relies on inclusive data collection and abstraction. Over generalization or categorization may mask disparities and exacerbate healthcare inequities.

A471

Have we made progress in the 5 years since the American Diabetes Association (ADA) recommended metabolic bariatric surgery (MBS) for patients with Class III obesity and type 2 diabetes (T2DM)?

Jisoo Kim *Greenville NC*[1], William Irish *Greenville NC*[2], Eric DeMaria *GREENVILLE NC*[3]
East Carolina University - Brody School of Medicine[1] East Carolina University[2] East Carolina University - Brody SoM[3]

Introduction

In 2017, the ADA recommended MBS for patients with T2DM and Body Mass Index (BMI) ≥ 40 (Class III obesity). The purpose of this study was to evaluate if the utilization of MBS for treatment of T2DM is increasing since the ADA guideline.

Materials and methods

We reviewed primary bariatric procedures in patients with obesity and T2DM between 2018 to 2022 (excluding 2020-2021 due to the pandemic), using the MBS Accreditation Quality and Improvement Project (MBSAQIP) database. We obtained data on the number of diabetics in the U.S. from the National Diabetes Statistics Report published by the Center for Disease Control (CDC).

Results

The incidence of newly diagnosed diabetic patients was about 1.5 million in 2018 and 1.2 million in 2021, and the overall prevalence of T2DM increased from 26.9 to 29.7 million people from 2018 to 2021 (10.4% increase).

Overall, MBS cases increased from 169,786 (2018) to 204,073 (2022) for patients with class I-III obesity. The number of patients with T2DM who underwent MBS increased from 43,742 (2018) to 47,558 (2022) (8.7% increase). The number of patients with both T2DM and class III obesity undergoing MBS increased from 30,917 (2018) to 33,798 (2022) (9.3% increase), which was lower than the increased prevalence of T2DM in the U.S. at 10.4% over the same period.

Conclusion

Although there has been some increase in MBS procedures performed overall, and specifically in patients with T2DM, the growth in number of surgical procedures has not kept pace with the increasing prevalence of T2DM.

A468

Managing Complexities in Robotic Conversion from Sleeve Gastrectomy to Gastric Bypass and Hiatal hernia Repair: A Case of Gastrojejunostomy Bleeding

Alexander Ramirez *ST. PETERSBURG FL*[1], Andres Ramirez *Barranquilla* [2]
Bayfront Health[1] Universidad del Norte[2]

Introduction:
This presentation delves into the challenges of revising bariatric surgery in a 63-year-old male with a history of sleeve gastrectomy in 2013. The patient, dealing with multiple comorbidities such as hypertension, sleep apnea, asthma, anxiety, diabetes, GERD, hyperlipidemia, and atrial fibrillation on coumadin, he went for a Robotic gastric bypass and hiatal hernia repair procedure with 3 incisions. He faced complications postoperatively, including gastrojejunostomy bleeding.

Case Description:
The patient's postoperative course involved an UGI bleeding with supratherapeutic INR of 15. Urgent endoscopy revealed anastomotic ulcer, pulsatile artery, and exposed sutures, prompting hemostasis with epinephrine injection and 7 clips. Concurrently, atrial fibrillation with rapid ventricular response required Cardizem and cardiology consultation.
Collaboration between GI, bariatric surgery, and electrophysiology specialists ensued. Despite initial stabilization, recurrent GI bleeding led to additional endoscopic interventions, hospitalization, and challenges such as transfusions and prophylactic clip placement during a second endoscopy.

Outcomes and Follow-up:
Following meticulous management, the patient stabilized, was discharged, and scheduled for a Watchman procedure. Challenges during the left atrial appendage closure included transient oozing, requiring a one-night admission. Successful discontinuation of anticoagulation was achieved, and follow-up in the clinic showcased positive evolution with weight loss and improved metabolic health.

Conclusion:
This case highlights the intricacies of revising bariatric surgeries complicated by bleeding and comorbidities. The presentation offers insights into multidisciplinary management, emphasizing collaborative efforts among specialties for successful patient outcomes.

A466

Adolescents Undergoing Bariatric Surgery: Identification of Occult Hepatic Fibrosis

Prabhath Mannam *Farmington CT*[1], Christine Finck *Hartford CT*[2], Nicolle Burgwardt *Hartford CT*[2], Uyen To *New Haven CT*[3], James Healy *Hartford CT*[2]
University of Connecticut[1] Connecticut Children's[2] Yale University[3]

Introduction:
Lipid accumulation within hepatocytes can lead to cellular damage, necrosis and ultimately hepatic fibrosis, and is closely related to metabolic syndrome. Previously believed to be quite rare in adolescents, occult hepatic fibrosis has been increasingly identified in young patients with severe obesity.

Methods:
Retrospective review of a prospectively collected registry of all patients undergoing sleeve gastrectomy at an academic children's hospital. Before sleeve gastrectomy, a standardized protocol was used to determine which patients would receive selective liver biopsy, including ultrasound presence of steatosis and ALT>22 U/L (in females) or >26 U/L (in males).

Results:
Of 148 patients undergoing sleeve gastrectomy, 52 underwent liver biopsy, either intraoperatively or during their preoperative workup. Of these, 51.9% (n=27) had evidence of fibrosis. In patients with fibrosis, 51.9% were stage I, 37.0% were stage II, and 11.1% were stage IV. Patients with fibrosis were significantly more likely diabetic (p=0.005), male (p=0.032), and not black or African American (p=0.008).

Conclusions:
In adolescents pursuing bariatric surgery at our institution, 18.2% had some degree of hepatic fibrosis, despite often having minimal laboratory or ultrasound findings. Our standardized protocol for selective liver biopsy had a pre-test probability of 51.9%. These findings suggest an imperative for earlier screening in adolescents with obesity to identify hepatic fibrosis and intervene medically or surgically before advanced fibrosis occurs. Adolescents with hepatic fibrosis require hepatology consultation for monitoring with counseling to avoid hepatotoxins, and ongoing multidisciplinary weight management intervention to prevent weight regain following surgery.

A474

Sleeve Gastrectomy with transit bipartition robot assisted

Robert CAIAZZO *Lille* [1], Marciniak Camille [1], Mathilde GOBERT [1], Gregory BAUD *France* [1], francois pattou *Lille* [1]
Lille University Hospital[1]

We present a video of a new procedure initially described in Brazil by Sergio Santoro and now being validated in France by a national prospective randomized study still ongoing. It combines a sleeve gastrectomy and a Roux-en-Y bypass by performing a gastro ileal anastomosis. As the duodenum remains intact, food is able to progress either via the bypass or the original route, so as to benefit from the effects of malabsorption while minimizing protein and vitamin deficiencies. We report the case of a 28-year-old woman with a BMI of 54 kg/m2. The procedure was performed with robotic assistance using Medtronic's HUGO platform. Postoperative recovery was straightforward.

A472

Are we improving in bariatric surgery outcomes over time? Comparative Analysis of Laparoscopic Bariatric Surgery over two-time intervals using the MBSAQIP data registry

Jorge Cornejo Aguilar *Randallstown FL*[1], Alba Zevallos *Randallstown MD*[1], Jennifer Brown *Randallstown MD*[1], Joaquin Sarmiento *Lima MD*[1], Fatemeh Shojaeian *Baltimore MD*[2], Farzad Mokhtari-Esbuie *Baltimore MD*[2], Gina Adrales *Baltimore MD*[2], Christina Li *Randallstown MD*[1], Raul Sebastian *Randallstown MD*[2]
Northwest Hospital[1] The Johns Hopkins University[2]

Background:
The Bariatric Surgery field has grown and changed over the years, reflected in the implementation of different ERAS protocols and the increased number of MBSAQIP-accredited centers and fellowship-trained surgeons. Therefore, using the MBSAQIP database, this study aims to characterize the change in laparoscopic bariatric outcomes in early (ET) and late (LT) time intervals.

Methods:
The MBSAQIP database was analyzed over ET (2015–2016) and LT (2019–2020) intervals. Patients who underwent initial laparoscopic SG and RYGB were identified. The cohorts were matched for 22 preoperative characteristics using propensity score matching analysis. We then compared 30-day outcomes and bariatric-specific complications between both time frames for SG and RYGB.

Results:
158,994 and 59,440 match cohorts were obtained for ET and LT intervals in patients undergoing SG and RYGB, respectively. In both bariatric procedures, LT interval was associated with significantly lower rates of mortality, pulmonary complications, readmissions, reoperations, interventions, length of stay (LOS), postoperative bleeding, and strictures compared to ET interval. All of these variables achieved statistical significance ($p<0.05$) as shown in Table 1. In addition, LT interval showed lower rates of leak (0.2% vs 0.3%, $p<0.001$) and anastomotic ulcer (0.2% vs 0.3%, $p=0.007$) compared to ET interval in SG and RYGB patients, respectively.

Conclusion:
There has been significant improvement in 30-day outcomes after bariatric surgery over time. Potential contributing factors include the ASMBS optimization programs in ERAS protocols, the increased number of fellowship-trained bariatric surgeons and MBSAQIP-accredited centers.

A475

Concurrent Hiatal Hernia Repair with Sleeve to Roux-en-Y Gastric Bypass Conversion; Is it safe? A Propensity Score Matching Analysis

Jorge Cornejo Aguilar *Randallstown FL*[1], Alba Zevallos *Randallstown MD*[1], Jennifer Brown *Randallstown MD*[1], Joaquin Sarmiento *Lima MD*[1], Fatemeh Shojaeian *Baltimore MD*[2], Farzad Mokhtari-Esbuie *Baltimore MD*[2], Gina Adrales *Baltimore MD*[2], Christina Li *Randallstown MD*[1], Raul Sebastian *Randallstown MD*[2]
Northwest Hospital[1] The Johns Hopkins University[2]

Background:
The incidence of SG to RYGB conversion (C-RYGB) has increased recently, with GERD being the most common indication. Thus, it is imperative to identify the presence of a HH at the time of conversion. Herein, using the MBSQIP database, the outcomes between C-RYGB with HHR and C-RYGB alone were compared.

Methods:
Patients who underwent C-RYGB with HHR and C-RYGB alone within the 2020-2021 MBSAQIP database were included. Using propensity score matching (PSM) analysis, the cohorts were matched for 23 preoperative characteristics. We then compared 30-day postoperative outcomes between C-RYGB with HHR versus C-RYGB alone.

Results:
13,037 patients were identified. The matched cohorts (n= 1921) had similar pre-operative characteristics. After PSM, patients in the C-RYGB with HHR group showed longer operative times (157.79 ± 68.74 min vs 144.26 ± 66.94 min, $p<0.001$). Similarly, significantly higher rates of readmissions (8.7% vs 6.3%, $p=0.005$) and interventions (3.4% vs 2.4%, $p=0.048$) were found among those who underwent C-RYGB with HHR when compared to C-RYGB alone. However, there were no significant differences in mortality, cardiac pulmonary, renal complications, blood transfusions, and bariatric-specific complications such as anastomotic leak, postoperative bleeding, and strictures.

Conclusion:
Concurrent hiatal hernia repair with sleeve to Roux-en-Y gastric bypass conversion is safe and feasible. Although it was associated with longer operative times and higher rates of readmissions and interventions, there were no differences in mortality, cardiac, pulmonary complications, and bariatric-specific complications such as anastomotic leak, bleeding or strictures.

A473

The Learning Curve of a Pediatric Bariatric Surgery Program: Lessons Learned from the First 100 Patients

Nicolle Burgwardt *Hartford CT*[1], Christine Finck *Hartford CT*[1], Darren Tishler *Glastonbury CT*[2], Pavlos Papasavas *Hartford CT*[2], James Healy *Hartford CT*[1]
Connecticut Children's[1] Hartford Hospital[2]

Introduction:
More adolescents are requiring bariatric surgery, and pediatric surgical programs are building bariatric capacity in response. Adolescent patients with severe obesity often need complex medical and psychosocial support, necessitating familiarity, experience, and protocols for safe surgical care. This study aims to evaluate the learning curve for a pediatric bariatric program, from initiation with mentorship from our adult program partners, to more independent practice and MBSAQIP accreditation.

Methods:
Retrospective review of prospectively collected data from the first 100 laparoscopic sleeve gastrectomy patients at a freestanding academic children's hospital. Demographics, perioperative, and follow-up data were collected to reflect the ASMBS recommended reporting standards.

Results:
The first 100 patients were reviewed from 2015-2022. Mean preoperative BMI was 50.2 kg/m^2 (37-70.2), mean age 17.4 years. At a median follow-up time of 17 months (range 1-71 months) the average dBMI was 12.1, average percent total weight loss was 21.8% (range: 11.1% gained to 57.2% lost). Average operative time decreased from quartile 1 (127.6min) to quartile 4 (65.3min), as did length of stay (years 1-4: 3.2 days, years 5-8: 2.2 days), and overall postoperative narcotic doses (8.4 to 1.8). Adult bariatric surgery mentors were present for 50 cases overall. One patient experienced postop bleeding requiring transfusion and one suffered a superficial wound infection.

Conclusions:
Partnership with an established high-volume bariatric center and accumulation of experience, followed by systematic implementation of quality and safety measures through MBSAQIP, can substantially improve the care provided to adolescent patients during the building of a pediatric bariatric program.

A480

The JJ is Greener on the Other Side?! Utilization of Indocyanine Green Immunofluorescence in the Detection of Anastomotic Leak

Samariah Bautch *Overland Park KS*[1], Jeremy Bryner *Overland Park KS*[2], John Tann [3], Steve Scott *Leawood KS*[3], Roger de la Torre *Overland Park KS*[4]
Menorah Medical Center HCA[1] Fellow, Menorah Medical Center[2] Attending, Menorah Medical Center[3] Assistant Fellowship Director, MMC[4]

Introduction:
Diagnosing the etiology of acute abdomen in a postoperative bariatric patient can be a challenge. This video presentation describes a patient that underwent a robotic Roux en Y gastric bypass and postoperatively developed abdominal pain and sustained tachycardia and returned to the OR for exploration. After negative air insufflation leak test of the gastrojejunostomy and jejunojejunostomy, indocyanine green was utilized intraluminal via laparoscopic assisted endoscopy and demonstrated a JJ anastomotic leak. The JJ was redone and the patient did well postoperatively. ICG can be a useful adjunct for detection of anastomotic leak in bariatric surgery.

Case Description:
This case describes a 59 year old with obesity who underwent robotic assisted RYGB. Postoperatively, the patient developed sustained tachycardia and worsening abdominal pain. CT imaging with PE evaluation was inconclusive for a source. The patient was returned to the OR. There was no significant free fluid. The gastrojejunal anastomosis appeared intact. The JJ anastomosis appeared inflamed with roux limb dilation. Given suspicious appearance of the JJ, this area was focused on and further evaluation performed. On upper endoscopy, fluid and solid material was noted with distention of the roux limb, but no obvious perforation seen. Air was insufflated via endoscopy for a leak test of the anastomoses and was negative. Next, ICG was instilled proximal to the JJ via endoscopy; extraluminal extravasation was detected of the anterior aspect. The JJ was resected and a new JJ created. The patient progressed well and was discharged home 1 week from reoperation.

A481

Roux-en-Y gastric bypass after Sleeve Gastrectomy for gastro esophageal reflux with robotic assistance

Robert CAIAZZO *Lille* [1], Camille MARCINIAK [1], Mathilde GOBERT [1], Baud gregory [1], francois pattou *Lille* [1]
Lille University Hospital[1]

We present a video of a conversion from sleeve gastrectomy to gastric bypass for gastroesophageal reflux disease poorly controlled under treatment (PPI). The case reported here is that of a 37-year-old woman weighing 56 kg, whose excessive weight loss was mainly due to poor food tolerance. The preoperative work-up showed stenosis of the gastric sleeve just below a small hiatal hernia. Reflux complicates 20% of sleeves and leads to a repeat operation in 2% of cases in the registries, which probably underestimates the number due to the lack of follow-up. Gastric bypass has demonstrated to be the option of choice in cases of gastric sleeve anomaly. The sarcopenia and fragility of the diaphragm pillars led us to use a biological prosthesis to reinforce the hiatus. The surgical procedure was performed with robotic assistance using Medtronic's HUGO platform.
Post-operative recovery was straightforward, with an early return home, and improvement in food tolerance and reflux.

A482

Revisional Bariatric Surgery with Extensive Intestinal Adhesions: How to Navigate such Challenging Scenario?

Sarah Breakeit *Riyadh* [1], Raghad Alaskar *Riyadh FL*[1], Sultan Alhabdan [2]
National guard Riyadh[1] MBBS, MIS/Bariatric consultant[2]

Introduction:

Hiatal hernia post-sleeve can be managed in several ways. Literature have shown that revisional surgery to Roux-en-Y gastric bypass my yield better outcomes. Anatomy related contraindications to such procedure are limited and controversial. For example; short bowel length, hernia-containing bowel, and bowel injury. Intraoperative intestinal adhesions can as well be a concern. Due to the controversial approaches in hiatal hernia post sleeve; doing hernia repair alone in the discovery of intestinal adhesion might be attempted. However; having view on those cases and how to navigate such challenge can improve our surgical experience and decision in the future; where optimal outcomes can be achieved.

Case:

A 30 Years-old female medically free patient presented to the clinic for reflux symptoms. Patient gave surgical history of congenital diaphragmatic hernia repaired at birth, open appendectomy, and sleeve gastrectomy done 4 years before presentation. BMI was 44 and she lost around 45Kgs post-sleeve. Patient gave history of acid and food reflux, not improving with diet modification nor medications. Upper gastro-intestinal series showed hiatal hernia and contrast reflux. Esophagogastroduodenoscopy showed hiatal hernia yet no inflammatory changes related reflux. Lastly; computed tomography showed large mixed hiatal hernia. Multidisplinary meeting was done; planned for revisional surgery of Roux-en-Y gastric bypass and hiatal hernia repair.

Conclusion:

Extensive intestinal adhesions can be faced during Roux-en-Y gastric bypass, which might lead to aborting the surgery; however, trial of meticulous adhesiolysis and completion of the procedure can be attempted resulting in successful outcomes as in the present case

A483

Assessing the Impact of Roux en Y Gastric bypass Limb Length on Weight Loss: A Propensity-Matched Analysis

Wasef Atiya *New Orleans LA*[1], Mahmoud Omar *New Orleans LA*[1], Abdallah Attia *New Orleans LA*[1], Alexandra Campbell *New Orleans LA*[1], Michelle Nessen *New Orleans LA*[1], John Baker *New Orleans LA*[1], Carlos Galvani *New Orleans LA*[2], Shauna Levy *New Orleans LA*[1]
Tulane School of Medicine[1] LSU School of Medicine[2]

Machine learning (ML) offers unique insights into clinical data. In this study, we evaluated the impact of alimentary and biliopancreatic limb lengths in Roux-en-Y Gastric Bypass (RYGB) surgery on weight loss.

We conducted a retrospective analysis on 88 patients who underwent RYGB surgery from 2020-2022 using propensity score matching for baseline weights. Using k-means clustering, patients were stratified into four groups based on limb lengths: Roux limbs above and below 137 cm, and biliopancreatic limbs above and below 90 cm. We assessed changes in weight and BMI at 3, 6, and 12 months post-surgery.

Although all groups had substantial BMI reductions, there were no significant differences between groups with differing limb lengths. Both longer and shorter Roux limb groups showed similar BMI reductions (-13.6 kg/m² vs. -14.9 kg/m² respectively). Biliopancreatic limb groups demonstrated comparable results, with BMI changes of -14.9 kg/m² and -14 kg/m², in longer limbs versus shorter limbs. All groups had p-values >0.05. Heatmap analysis indicated a weak negative correlation between limb lengths and outcomes.

The study concludes that neither Roux nor biliopancreatic limb lengths significantly influence weight loss at 3, 6, and 12 months post-RYGB surgery. This finding aligns with existing literature and underscores the need for further research. The application of ML techniques offers a promising direction for future studies. ML utilization in larger cohorts may enable the development of predictive models to optimize surgical procedures for individual patients, enhancing postoperative outcomes.

A485

Unexpected intra operative cause for gastric narrowing post sleeve gastrectomy

Raghad Alaskar *Riyadh FL*[1], Sultanah Bin Gheshayan *riyadh WY*[2], Sarah Breakeit *Riyadh* [2], Sultan AlHabdan *Riyadh* [2]
National guard[1] None[2]

Introduction:
Sleeve gastrectomy is one of the most preformed metabolic procedures nowadays. Although relatively safe, it still carries the risk of many post-operative complications. One of the most dreadful is stapler line bleeding which can result in subsequent hematoma formation. This can in turn cause obstructive symptoms either by direct compression, or adhesions to adjacent structures.

Case:
This is a 49-year-old female, who underwent laparoscopic sleeve gastrectomy in December, 2022. 10 days post operatively, she presented to the Emergency Department with complaint of epigastric pain and nausea. Full workup was done, with finding of peri gastric hematoma on abdomen CT, around 8x9 cm in size. As it was not actively bleeding, patient was admitted for conservative management, then discharged 4 days later. 1 month after discharge, follow up abdomen CT was preformed, and showed regression of hematoma size to 5x6 cm. However, 2 months later, she presented to the clinic with complaint of persistent progressive food intolerance, initially to solids then liquids. Investigations including upper gastroenterology series and esophagogastroduodenoscopy were done. Due to finding of distal gastric twist and failure to clinically improve, patient was taken for diagnostic laparoscopy. Intra operative finding was of organized hematoma which caused adhesions to liver and upward pull resulting in the aforementioned symptoms. Complete take down was completed. The patient reported improvement in symptoms afterwards.

Conclusion:
Although uncommon, post-operative complications such as organized hematoma should be considered as a differential in patients presenting post sleeve gastrectomy with obstructive symptoms.

A456

National Trends in Pediatric Bariatric Surgery: Are We Making Progress?

Ana Reyes *Miami FL*[1], Chad Thorson *Miami FL*[1], Maeva Adoumie [1], Robert Cubas [1], Jose Martinez [1], Onur Kutlu *Miami FL*[1]
University of Miami[1]

Introduction:
Severe pediatric obesity has grown exponentially and affects 4.5 million children in the US. Metabolic/Bariatric Surgery (MBS) in the pediatric population is a safe, effective treatment. Trends and outcomes in adult MBS are well defined. In this study we identify trends and outcomes in pediatric bariatric surgery.

Methods:
MBSAQIP 2017-2022 was the data source. Patients 11-17 years of age, who underwent primary bariatric surgery were included in the study. Primary outcome was national procedure rate. Secondary outcome analyses included procedure type, BMI, demographics, and perioperative outcomes.

Results:
2517 patients fit inclusion. A gradual increase in bariatric surgery was observed despite the 2020 pandemic. Mean age was 16.3 (11-17), mean BMI 46.95 (35-73), proportion of males increased during the study period from 21.2% to 32.2%. Rate of gastric sleeve increased from 68.1% to 95.2% while gastric bypass decreased from 22.7% to 4.3%. The most dramatic change was in adjustable banding, from 5.4% to 0%. Median hospital stay was 1 day (1-4), readmission rate was 2.4%, reoperation rate was 0.3%, and no 30-day mortalities were identified.

Conclusion:
In the last 7 years pediatric bariatric surgery increased despite the pandemic. Sleeve gastrectomy is the most commonly performed procedure. The use of gastric bypass decreased, gastric banding was abandoned. Despite the proven benefits and safety of MBS, it is still underutilized in the pediatric population. The reason for this is multifactorial. Societies should take on the tasks of educating referring physicians and the public and should advocate for increased access to MBS care.

A469

Exploring practices surrounding total parenteral nutrition after bariatric surgery using natural language processing via large language models

Thomas Shin *Boston MA*[1], Hadi Amiri *Lowell MA*[2], Jiali Cheng *Lowell MA*[2], Jerry Dang *Cleveland OH*[3], Eric Sheu *Boston MA*[1], Pourya Medhati *Boston MA*[1], Vasundhara Mathur *Boston MA*[1], Abdelrahman Nimeri *Boston MA*[1], Ali Tavakkoli *Boston MA*[1]
Brigham and Women's Hospital[1] University of Massachusetts, Lowell[2] Cleveland Clinic Foundation[3]

Biomedical large language models (LLMs) allow extraction of medical insights deeply embedded within large repositories of unstructured text data. This study exploits natural language processing (NLP) to systematically analyze clinical narratives and provide data-driven total parenteral nutrition (TPN) practice behavior, serving as a proof-of-concept application of LLM in AI-assisted clinical decision-making in bariatric care. Complete whole text charts from 45 consecutive postoperative bariatric patients who were started on TPN at Brigham and Women's Hospital (Boston, MA) were collated and analyzed using an open source LLM within a secure network (Llama2). Search queries were formulated with good coverage and employed Elasticsearch retrieval system to maximize output relevance which was analyzed in aggregate. Wide collections of both structured and unstructured data were integrated for LLM analysis, as outlined in Figure 1 describing an example prompt used in our study. Iterative responses were quality checked for clinical relevance, accuracy, and hallucination effects. The most common reason for TPN initiation was poor oral intake and inability to tolerate food orally, followed by surgical complications including staple line leak. TPN was most commonly stopped due to resolution of oral intolerance and achievement of nutrition goals set at TPN initiation. Interestingly, analysis of patient narratives objectively reveals previously underappreciated insight into patient preference and perspective surrounding TPN versus tube feeds due to ease of management, comfort, and fear of enteral feeding tubes. Additional optimization of prompt engineering is in pursuit to further elucidate unrealized relationships between postoperative complications, patient satisfaction, and TPN therapy parameters.

A490

1, 2-Year Results After Bariatric Surgery in a Predominantly Black Patient Population: Single Institution Data

CHAU Hoang *Brooklyn NY*[1], Sara Hamdan [1], Stacy Best-Nieves *Brooklyn NY*[1], Andrew Eberlein *Brooklyn NY*[1], Sara Hamdan *Brooklyn NY*[1]
NYC H+H/Kings County[1]

Introduction:
Demographic data on bariatric patients in the US are proportional to national census data, comprising 60-70% who identify as White and 10-20% who identify as Black. However, regional distribution can be unique. Here, we present data from our public institution.

Methods:
Retrospective review of data from 1/2020-10/2022 was done, on adult patients who underwent primary bariatric surgery. Primary outcomes were weight-loss and follow-up rate, and secondary outcome was improvement of comorbidities.

Results:
25% (49/196) underwent Roux-en-Y gastric bypass and 75% (147/196) underwent sleeve gastrectomy. 92% (180/196) were female; 91.83% (180/196) identified as Black, 6.63% as Hispanic and 1.53% as White. Mean age was 45 and mean starting BMI was 47, with significant comorbidities (Table 1). Over 80% (157/196) had Medicare/Medicaid/Public/City insurance. Follow-up was 100% (196/196) at 6 months, 91% (181/196) at 1 year, 83% (144/173) at 18 months, and 66% (87/133) at 2 years. At 1 year, mean post-operative BMI was 35 (SD 6); 33% (39/117) had reduction of at least 1 antihypertensive, and 68% (26/38) had resolution of DM by A1c; 89% (149/166) had >30% excess weight-loss, 48% (80/166) had >50% excess weight-loss, and 19% (33/166) had >60% excess weight-loss. For some, despite loss of 100 – 150 lbs at 1 year, their BMI remain over 40.

Conclusion:
Our patient population was older, sicker, had higher BMI, but had excellent retention rate, reasonable weight-loss and improvement in comorbidities.An adjunct program is underway to help the subset with inadequate weight-loss and those whose BMI remain high despite excellent weight-loss.

A492

Superior Backward Articulation in Disposable Gastroscopes versus Reusable Gastroscopes

Helmuth Billy *Ventura CA*[1], Shreyash Pradhan *Ventura CA*[2]
Ventura Advanced Surgical Associates[1] Community Memorial Hospital Ventura[2]

Background

Retroflexion is essential in diagnostic endoscopy. We examined articulation abilities of reusable diagnostic gastroscopes (RUDG) and single-use diagnostic gastroscopes (SUDG) with respect to the degree of retroflexion achieved.

Methods

RUDGs undergo degradation of their maximum backwards articulation during their lifetime, including after anticipated repairs. In December 2023, we compared the retroflexion between 2 RUDGs (Olympus GIF-HQ190) and 2 SUDGs (Ambu aScope Gastro). The RUDGs were randomly selected from available endoscopes inventoried at our GI center. Endoscopes selected included one with and one without repairs. Gastroscopes were clamped to a board and flexed backwards until the maximum sustained angle was measured with a protractor both with and without instruments in the working channel.

Results

RUDGs achieved an average backwards flexion of 164 degrees while SUDGs achieved an average of 210 degrees backwards flexion. Introduction of an injection needle decreased backwards flexion from 164 to 132 degrees in the RUDGs and SUDGs decreased from 210 to 205 degrees. Introduction of a biopsy forcep decreased backward flexion to 138 degrees in the RUDG's versus 201 degrees in the SUDG's.

Conclusion

SUDGs achieved 21.9% superior retroflexion at baseline and over 30% superior retroflexion with instruments compared to the RUDGs. We observed decreased retroflexion in RUDGs compared to manufacturer listed specifications of 210 degrees, which is likely due to deterioration sustained during routine use and reprocessing. We observed SUDGs to perform consistently like-new. Decreased articulation may limit the abilities of RUDGs compared to SUDGs.

A476

The use of monopolar energy for staple-line bleeding during laparoscopic sleeve gastrectomy.

Regina Isabella Matus-Perez *San Pedro Garza Garcia* [1], Oziel Cantu-Delgado *Monterrey* [2], Adolfo Leyva-Alvizo *San Pedro* [1], Pamela Hernandez-Arriaga *Monterrey* [1]
Tecnologico de Monterrey[1] Universidad de Monterrey[2]

Introduction:

Staple line bleeding continues to be one of the most frequent complications in bariatric surgery, most specifically laparoscopic sleeve gastrectomy. We present an easy, cost-effective alternative to the many described in the literature.

Methods:

A case-series study of 115 patients who underwent laparoscopic sleeve gastrectomy (LSG) was performed between august 2023 and december of 2023 in 4 private hospitals in Nuevo Leon, Mexico. Initial patient data included age, BMI, previous diseases and surgeries, length of surgery, and staple height. After surgery, we measured length-of-stay, as well as readmission and reoperation.

Results:

A total of 115 bariatric procedures were performed between august and december 2023. Among these patients a female patient was readmitted 6 weeks later and converted to a single anastomosis gastric bypass due to dysphagia; no leak or bleeding were found in her CT or endoscopic studies.
No patient had length of stay longer than 24 hours, and no readmissions or reoperations took place.
The mean operative time was 19.36 minutes.

Conclusion:

Hemostatic control in laparoscopic sleeve gastrectomy surgery with monopolar energy proved to be effective in the reduction of reoperations/readmissions. Surgical time is also considerably shorter although we need further studies comparing groups using other hemostatic techniques such as suturing, use of buttressing material, surgical hemostatics, etc. This is our initial experience with this technique, and we hope to publish results in the near future.

A493

Inequity of bariatric surgery: Do publicly insured patients have increased complications?

Eitan Neidich *New York NY*[1], Dessislava Stefanova *New York NY*[2], Catherine Tsai *New York NY*[2], Gustavo Fernandez-Ranvier *New York NY*[2], Daniel Herron *New York NY*[2]
El Camino Hospital[1] Icahn School of Medicine at Mount Sinai[2]

Introduction:
Prior studies have shown that socioeconomic factors, in particular Medicare and Medicaid patients, have an increased risk of postoperative complications compared to privately insured patients following bariatric surgery. This study assesses whether payer status had an impact on bariatric surgery outcomes.

Methods:
The MBSAQIP database at Mount Sinai Health System was queried to identify primary sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) cases from 2011-2023. Data regarding patient payer status and surgical outcomes were analyzed.

Results:
Of the 1,564 patients who underwent primary bariatric surgery, the payer status was: 48.5% Medicaid, 42.2% private insurance, 7.6% Medicare and 1% self-pay. Medicaid patients were more likely to undergo SG compared to privately insured or Medicare patients (79% Medicaid, 72.6% Private, 62.7% Medicare, $p<0.001$). No statistically significant difference was seen in ED readmission following bariatric surgery (9.4% Medicaid, 8.7% Private, 6.7% Medicare, $p=0.62$). Additionally, no difference was noted in overall complication rates across the twelve metrics tracked within the MBSAQIP database by payer status (5.1% Medicaid, 4.4% Private, 5.8% Medicare $p=0.090$) or when analyzed by individual complication.

Conclusion:
For patients undergoing bariatric surgery at our institution, there were no differences in ED readmissions or overall complications between different payer statuses. Multi-institutional studies are needed to illuminate the factors and practice patterns that may mitigate the disparities in bariatric surgery outcomes on a national level.

A496

Management of proximal sleeve angulation and stenosis with conversion to RnY bypass with gastric pouch myotomy

Mina Ibrahim *Cleveland OH*[1], Mujjahid Abbas *Cleveland OH*[2], Daniel Praise Mowoh *Cleveland OH*[2], Mai Al Khadem *Cleveland OH*[2]
University Hospitals Medical Center CMC[1] University Hospitals CWRMU[2]

In this video presentation, we present a female patient in her 40s with a past medical history of HTN, pre-diabetes, sleep apnea, heartburn and a prior sleeve gastrectomy who presented with PO intolerance and vomiting. She underwent multiple tests and imaging studies that showed severe proximal angulation of the sleeve with a hiatal hernia. She then underwent a diagnostic laparoscopy with lysis of adhesions and hiatal hernia repair as the proximal angulation was thought to be due to adhesions. Following, the patient continued to have PO intolerance with persistent nausea and vomiting. Repeat EGD showed proximal sleeve stenosis which required balloon dilation. Due to severe malnutrition she also required a feeding tube. After a long discussion with the patient and family a sleeve conversion to bypass was suggested as all other measures were exhausted. This presentation showcases the intricate management of gastric pouch stenosis through a reconstruction process. Noteworthy steps include the resection of the retained fundus which created a blind end along the pouch, and addressing the hiatal hernia concerns. The video emphasizes the surgical technique of performing a gastric myotomy along the pouch to manage the stenotic area, ensuring a clear visualization of the process and facilitating effective reconstruction for the gastric bypass procedure.

A494

Reduced Adverse Outcomes of Same Day Sleeve Gastrectomy During the COVID Pandemic

Amalie Kropp Lopez *Scranton PA*[1], Grace Petrick *Danville PA*[1], James Dove *Danville PA*[1], Vladan Obradovic *Manlius NY*[1], Anthony Petrick *Danville PA*[1], Mark Mahan *Danville PA*[1] Geisinger[1]

Background:
The COVID pandemic led to significant strain on health care resources causing an exponential rise in the rate of same day discharge after sleeve gastrectomy (SDSG). The goal of this study was to determine if there was an increase in adverse outcomes to SDSG during COVID years (2020-2021) as compared to pre-COVID years (2015-2019).

Methods:
A retrospective analysis of the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Project (MBSAQIP) from 2015-2021 was performed. Univariate analysis was performed comparing demographics, comorbid disease and risk of adverse events within 30 days of SG by postoperative discharge day separated into pre-COVID and COVID years (2015-2019 vs 2020-2021).

Results:
A total of 702,622 SGs were performed during the study period. 31,394 (4.51%) of patients were SDSGs. 14,446 SDSG were performed pre-COVID while 16,862 during COVID. There were statistically significant adverse outcomes in pre-COVID SDSG including any complications (1.3% vs 1%, $p<0.001$), minor complications (1% vs 0.8%, p 0.003), readmission (2.8% vs. 2.2%, $p<0.0001$), reoperation (0.6% vs. 0.5%, p 0.001), and intervention (0.7% vs. 0.5% p 0.003) compared to those discharged on POD1. However, during COVID, the only statistically significant adverse outcome when comparing SDSG and POD1 patients was readmission (1.5% vs. 1.8%, $p<0.001$).

Conclusion:
When compared to patients discharged on POD1, SDSG were at significantly increased risk for all adverse outcomes during the pre-COVID years. Despite significantly increased rates of SDSG during COVID, clinicians select lower risk patients for SD discharge. We demonstrate the importance of patient selection when considering SDSG.

A495

Changes in weight and metabolic syndrome components in patients with BMI 30-35 kg/m2 and BMI 35 kg/m2 or more after sleeve gastrectomy

Sungsoo Park *Seoul*
Korea University College of Medicine

Background:
Although patients with a BMI of 30-35 kg/m^2 have been newly included in the metabolic and bariatric surgery patient group, Comparative studies with patients with a BMI of 35 kg/m^2 or higher are still insufficient.

Objective:
To compare the changes in weight and metabolic syndrome components in the 1 year after sleeve gastrectomy in patients with BMI 30-35 kg/m^2 and patients with BMI 35 kg/m^2 or higher.

Methods:
Retrospective chart reviews were conducted on patients who underwent sleeve gastrectomy at a single university hospital in Korea from 2019 to 2022. Changes in body weight and changes in the following metabolic syndrome components were investigated until 1 year after surgery; blood pressure, triglyceride, HDL cholesterol, waist circumference, and fasting blood glucose.

Results:
A total of 46 patients who were followed up to 1 year after sleeve gastrectomy were included in the study. The mean age was 42.1±10.1 years and 71% of women. The mean preoperative BMI was 37.5±15.4kg/m^2. The 1-year postoperative %weight loss was significantly higher in the BMI 30-35 kg/m^2 group (mean, 28.4±8.3kg/m^2) compared to the BMI >35 kg/m^2 group (mean, 33.1±9.3 kg/m^2). Metabolic syndrome components did not show any significant difference in the 1-year after surgery between both groups.

Conclusion:
Compared to the BMI 30-35 kg/m^2 group, the group with a BMI of 35 kg/m^2 or higher showed a significantly higher %weight loss 1 year after sleeve gastrectomy. However, there was no significant difference in the degree of improvement in the metabolic syndrome components between both groups.

A501

Methodist Hospital System Bariatric Support Group Collaborative

KATHERINE ODOM *Dallas TX*[1], Tamera Everett *Dallas TX*[2], Ashley Attaway *Mansfield TX*[3]
Methodist Dallas Medical Center[1] Methodist Charlton Medical Center[2] Methodist Mansfield Medical Center[3]

Background:
Bariatric surgery patients can benefit from participating in bariatric support groups. The 2020 Pandemic brought with it a reticence for public gatherings and attendance plummeted. While a good deal of effort is put into Bariatric after-care support and education, it is of little benefit if patients do not utilize these programs. Barriers to attendance pre- and post-Pandemic include time, proximity and underestimated personal value.

Objective:
To address barriers related to time and proximity, the MBSAQIP bariatric coordinators of 3 Methodist Hospital System (MHS) hospitals implemented the MHS Bariatric Support Group Collaborative to maximize resources and efforts. We sought to quantify the impact of this collaborative initiative.

Methods:
Pre-COVID, we offered one in-person support group meeting per month, at each MHS hospital. During COVID, each MHS hospital hosted one virtual support group meetings each month. The MHS Bariatric Support Group Collaborative launched in January 2023, and implemented a multi-modal initiative. Each hospital hosted their own in-person support group meeting once per month, and the Collaborative shared hosting of two additional, virtual support group options (offered during lunchtime and evening).

Results:
In 2023, MHS Hospital #1 saw a 41% increase (n=396) in support group participation, MHS Hospital #2 saw a 783% increase (n=256), and Hospital #3 saw a 184% increase (n=225), compared to 2022 participation rates.

Discussion:
Offering both remote and in-person modalities afforded patients the opportunity of personal contact or the convenience of Come-As-You-Are phoning in. Offering support group options at different times of the day also helped increase participation.

A500

The risk of progression of steatotic liver disease to hepatocellular carcinoma and cirrhosis with use of vitamin E, pioglitazone, and glucagon-like peptide 1 analogs: a large, multi-center cohort study

Ethan Cohen *Morgantown WV*[1], Ayowumi Adekolu *Morgantown WV*[1], Taylor McCready *New York NY*[2], Rashmi Advani [3]
West Virginia University[1] NYU Grossman School of Medicine[2] Icahn School of Medicine at Mount Sinai[3]

Introduction:
Steatotic liver disease (SLD) encompasses metabolic dysfunction-associated fatty liver disease (MAFLD) and metabolic dysfunction-associated steatohepatitis (MASH) which have been associated with an increased risk of hepatocellular carcinoma (HCC) and cirrhosis. Guideline-directed therapy for SLD includes vitamin E (VE), pioglitazone, and glucagon-like peptide 1 analogs (GLP1). We analyzed the incidence of HCC and cirrhosis following an SLD diagnosis on VE, pioglitazone, and GLP1s over 10 years.

Methods:
This is a large, retrospective, population-based cohort study utilizing data from the TriNetX platform. Adult patients with a BMI of 30 or higher with MASH or MAFLD that were treated with VE, pioglitazone, or GLP1s excluding tirzepatide were included. Patients diagnosed with SLD before the index event, or those diagnosed with alcoholic liver disease, Wilson's disease, hereditary hemochromatosis, chronic hepatitis B and C, autoimmune hepatitis, primary sclerosing cholangitis, primary biliary cirrhosis, intrahepatic bile duct carcinoma, hepatoblastoma, and angiosarcoma were excluded.

Results:
The GLP1 cohort included 34,614 patients, VE included 11,010 patients, pioglitazone included 2,765 patients, and control included 199,182 patients. The risk of progression from SLD to HCC and cirrhosis in the GLP1 cohort was significantly reduced compared to controls, VE, and pioglitazone. The pioglitazone cohorts HCC and cirrhosis risk was similar to controls and VE, but higher than GLP1s. The VE group showed higher risk of HCC and cirrhosis compared to controls and GLP1s, but insignificance compared to pioglitazone.

Conclusion:Compared to pioglitazone and VE, GLP1s are significantly better at reducing the risk of HCC and cirrhosis in patients with SLD.

A487

90-day Outcomes of Bariatric Surgery in Patients with Cirrhosis and Portal Hypertension as a Bridge to Liver Transplantation

Ana Reyes *Miami FL*[1], Kalyan Bhamidimarri *Miami FL*[1], Robert Cubas [1], Danny Sleeman [1], Jose Martinez [1], Onur Kutlu *Miami FL*[1]
University of Miami[1]

Introduction:
NASH is progressively becoming the leading cause of end-stage liver disease and liver transplantation. Of liver transplant recipients, 12.5% of are morbidly obese. Many patients are unsuitable for liver transplantation due to obesity. Despite evidence supporting bariatric surgery to prevent liver disease progression, bariatric surgery is rarely performed in patients with advanced liver disease. We present our pre-operative optimization protocol, surgical technique, and outcomes in patients with cirrhosis and portal hypertension who are liver transplant candidates.

Methods:
Patients with MELD score>15, significant portal hypertension, and who were liver transplant candidates were identified and reviewed.

Results: Four patients were included. All patients were male. Median age was 56 years (42-63), mean BMI 41.6, mean MELD score 16.3 (15-18), and mean Childs B 7.2 (7-8). Calculated Vocal-Penn risk of 30-day mortality was 5.5%, 90-day decompensation was 25.3%. Three patients had previous esophageal variceal bleeding, one had previous sleeve gastrectomy. All patients were optimized by hepatology preoperatively. Three patients underwent laparoscopic sleeve gastrectomy, one patient sleeve to gastric bypass. Mean blood loss was 150 ml (20-450), median hospital stay was 3 days (2-4). 30-day and 90-day mortality and 90-day decompensation rate was 0%.

Conclusion: Despite the data on weight loss for prevention of liver disease progression and disease recurrence after transplantation, bariatric surgery is not being widely utilized. The timing of surgery is an area of discussion. Our findings support the literature, suggesting in pre-transplant bariatric surgery, there are low rates of surgery-related complications and peri-transplantation morbidity at 30 and 90 days.

A502

Evaluation of Thyroid Function in Obese Patients Submitted to Bariatric Surgery

José Fernando Gonzalez Moreno *Guadalajara* [1], Gabriela Zamudio Martínez *ZAPOPAN* [1], Luis Osvaldo Suárez Carreón *GUADALAJARA* [1], José Victor Pérez Navarro *Guadalajara* [1]
IMSS[1]

Obesity has become one of the most significant public health challenges. This can cause physiological disorders that increases the mortality and morbidity risk. Also contributes in the pathogenesis of several endocrine abnormalities, including thyroid dysfunction. The obesity has been associated with high levels of TSH. Some clinical assays had been demonstrated a positive correlation between obesity and levels of TSH. We performed an observational study, evaluating patients with morbid obesity submitted to bariatric surgery. We included 30 patients (15 patients with Gastric Bypass) and 15 patients with Gastric Sleeve at Centro Medico Nacional de Occidente in Guadalajara, Jalisco, Mexico. Clinical, anthropometric, biochemical, and hormonal parameters were evaluated, before the Bariatric Surgery and four weeks after Bariatric Surgery. Pre-surgical mean free tiroxine (T4) (ng/dL) was 1.2 ± 0.3, Pos-surgical mean free tiroxine (T4) (ng/dL) was 1.1 ± 0.2. Pre-surgical mean TSH (µUI/dL) was 2.99 ± 0.8, Pos-surgical mean TSH (µUI/dL) was 2.42 ± 0.6. TSH levels significantly decreased in the obese patients after surgery; 2.99 ± 0.8 vs. 2.42 ± 0.6 before and 4 weeks after surgery, respectively. Free thyroxine (T4) (ng/dL) levels significantly decreased in the obese patients after surgery; 1.2 ± 0.3 vs. 1.1 ± 0.2 before and 4 weeks after surgery, respectively. TSH decreased significantly over time. In euthyroid patients with morbid obesity, weight loss induced by bariatric surgery promotes a significant decline of the increased TSH levels. This decrement of TSH is progressive over time after surgery, but without significantly association with loss of weight or BMI.

A504

Robotic assisted takedown of Nissen fundoplication, Type III Hiatal Hernia Repair, and Roux-en-Y gastric bypass

Jeffrey Hodges *Pittsburgh PA*[1], Bestoun Ahmed *Pittsburgh PA*[1], Aditya Das *Pittsburgh PA*[1]
University of Pittsburgh Medical Center[1]

We present our video of a 43 year old woman who was evaluated for surgical weight loss in setting of failed Nissen fundoplication with recurrent type III hiatal hernia and GERD. The patient underwent robotic assisted takedown of Nissen fundoplication, type III hiatal hernia repair, and Roux-en-Y gastric bypass. The patient tolerated the procedure well and was discharged on postoperative day 1 with no further complications on follow up and improvement in reflux symptoms. Patients with hiatal hernia in setting of morbid obesity may benefit from concurrent hiatal hernia repair with Roux-en-Y gastric bypass. In rare instances, patients may require takedown of previous fundoplications in order to restore anatomy prior to gastric bypass. It is imperative to use appropriate technique to avoid injury to critical structures including the left gastric artery, esophagus, and pleural spaces during the course of this dissection. Additional investigation is warranted to identify patients who may benefit from concurrent hiatal hernia repair during gastric bypass.

A507

Cognitive screening tools can identify potential behavioral health treatment targets in pre-surgical bariatric patients

Hayden Ferguson *Oklahoma City OK*[1], Duyen Nghiem *Oklahoma City OK*[1], Rachel Tran *Moore OK*[1], Fernando Moreno-Garcia *Oklahoma City OK*[1], Laura Fischer [1], Maria del Carmen Trapp *Oklahoma City OK*[2]

OU Health Services Center[1] OU Health Sciences Centet[2]

See uploaded image below

A505

Cirrhotic with internal hernia after gastric bypass with JJ perforation

Genevieve Gill-Wiehl *New Haven CT*[1], Andrew Duffy *New Haven CT*[1]
Yale University[1]

This case report highlights a safe minimally invasive approach in a patient with a complex medical history and a bariatric emergency. The patient had a history of previous gastric bypass, metastatic renal cell carcinoma, and NASH cirrhosis. He presented with abdominal pain and PO intolerance and was found to have an incarcerated internal hernia causing an obstruction and a perforation at the jejunojejunostomy. In the operating room we were able to utilize a laparoscopic approach to reduce the internal hernia and close the perforation and hernia defect. A formal revision of the anastomosis was deferred given his risk of complications from bleeding or poor anastomotic healing in the setting of cirrhosis and hypoalbuminemia.

A508

Chronic Gastro-Gastric Fistula: Robotic Assisted Repair.

Ruben Salas Parra *New Hyde Park NY*[1], Matthew Jung *Manhasset NY*[1], Ann Defnet [1], Andrea Bedrosian *Great neck NY*[1], Larry Gellman *Great Neck NY*[1], Dominick Gadaleta *Great Neck NY*[1]
Northwell Health[1]

Gastrogastric fistula (GGF) after a Roux-en-Y gastric bypass is a communication between the gastric pouch and the remnant. Symptoms include nausea, vomiting, and weight regain. We are presenting a 41-year-old female patient with a history of an open partitioned gastric bypass, with chronic symptoms of GGF, which was confirmed on imaging (Upper Gastrointestinal Series). The patient underwent 2 endoscopic closures with gastroenterology, however, the attempts were unsuccessful, leading to a referral back to bariatric surgery for repair, where a robotic approach allowed the repair of the GGF. Surgical repair is definitive, and simultaneous endoscopic assistance allows to identify anatomy, defects, and to prevent stapling across plastic or metal hardware used for the endoscopic suturing

A506

Can the MBSAQIP Risk/Benefit Calculator Accurately Predict Outcomes After Revisional Bariatric Surgery?

Qais AbuHasan *Indianapolis IN*[1], Bogdana Chesnova *Carmel IN*[2], Diala Sanduka *Jerusalem* [3], Wentao Zhang *Shanghai IN*[4], Charles Burney *Carmel IN*[1], Tarik Yuce *Hilliard OH*[1], Dimitrios Stefanidis *Carmel IN*[1]

Indiana University School of Medicine[1] Ben Gurion University[2] An-Najah National University[3] Fudan University[4]

Introduction:

We have previously shown that the MBSAQIP risk calculator has a good predictive ability for postoperative complications and weight loss and is important for patient decision making. However, Its accuracy for revisional procedures is unclear. We aimed to assess the predictive accuracy of the calculator for revisional bariatric procedures.

Methods and Procedures:

We queried our institutional MBSAQIP registry for adult patients who underwent revisional bariatric surgery from 2016-2021. We recorded patient demographics, procedure type, preoperative comorbidities, 30-day outcomes, BMI at 6 and 12 months, and comorbidity remission at 12 months. We then used the online calculator to record predictions for the same patients. Receiver operating characteristic curves were constructed to assess predictive utility for dichotomous outcomes. For BMI, predictive error (predicted – actual BMI) was also calculated.

Results:

A total of 169 revisional procedures were included, of which, 83.5% were gastric bypass. The area under the curve for any complication, serious complications, readmissions, and interventions was 0.61, 0.73, 0.58, and 0.61, respectively (Figure 1). The correlation coefficient for predicted and observed 1-year BMI was 0.56, $p<0.001$; the mean predictive error for 1-year BMI was -3.8 ± 5, and 75% of the cases had a negative predictive error (Figure 2).

Conclusion:

For revisional bariatric operations, the MBSAQIP risk calculator fails to reliably predict postoperative complications and readmissions and overpredicts weight loss. Given the rising frequency of revisions and the demonstrated importance of the calculator for patient decision making it is important to develop a revision-specific calculator with more accurate estimates.

A509

ENDOSCOPIC REVISION OF PRIOR BARIATRIC SURGERY IMPROVES METABOLIC COMORBIDITIES AT 12 MONTH FOLLOW UP

Jeffrey Shu *Cleveland OH*[1], Stephen Firkins *Cleveland OH*[1], Roma Patel *Cleveland OH*[1], Erika Staneff *Cleveland OH*[1], Bailey Flora *Cleveland OH*[1], Roberto Simons-Linares *Cleveland OH*[1]
Cleveland Clinic Foundation[1]

Background:
Bariatric surgery is the most effective treatment for obesity, however, a subset of patients experience significant weight regain (WR). Endoscopic revision of bariatric surgery (ERBS) is a safe and effective therapy for WR, however, few studies exist describing its effects on metabolic comorbidities.

Methods:
A single-center, retrospective study of patients who underwent ERBS (transoral outlet reduction [TORe], revisional endoscopic sleeve gastroplasty of prior sleeve gastrectomy [Re-ESG]) was performed between 09/2021-09/2023. Measures of metabolic comorbidities involving liver steatosis (CAP score, steatosis stage, transaminase levels) and type II diabetes mellitus (HbA1c) pre- and post-ERBS were collected from electronic health records. Continuous variables are depicted as mean (±SD) and paired t-tests were performed.

Results:
A total of 49 patients underwent ERBS (1 ERBS of gastric plication, 37 TORe, 11 Re-ESG) after a mean 120.90 (±74.92) months post bariatric surgery and baseline BMI of 39.84 (±6.63) kg/m^2. Patients had a mean total body weight loss of 15.49% (±8.40%) at 12-month follow-up. Patients experienced a mean decrease of 0.2% HbA1c (95% CI: 0.073-0.33%, p = 0.003) after ERBS. 12 patients underwent hepatic elastography before and after (mean 10.45± 4.41 months) ERBS. CAP scores decreased by a mean 56 dB/m (95% CI: 13.33-98.67, p = 0.001) and 5/12 patients improved their liver steatosis stage.

Conclusion:
ERBS results in significant and durable weight loss as well as improvement in multiple metabolic comorbidities in patients with WR after bariatric surgery. Larger studies with longer follow up are needed to more fully assess the long-term effects of ERBS.

A510

IMPACT OF PREOPERATIVE COVID-19 DIAGNOSIS IN BARIATRIC SURGERY OUTCOMES: PROPENSITY SCORE ANALYSIS USING THE 2021-2022 MBSAQIP DATABASE

Alba Zevallos *Randallstown MD*[1], Jorge Cornejo Aguilar *Randallstown FL*[2], Jennifer Brown *Randallstown MD*[2], Joaquin Sarmiento *Lima MD*[2], Christina Li *Randallstown MD*[2], Gina Adrales *Baltimore MD*[3], Raul Sebastian *Randallstown MD*[3]
Department of Surgery,Northwest Hospital[1] Northwest Hospital[2] Johns Hopkins Hospital[3]

INTRODUCTION:

The coronavirus disease 2019 (COVID-19) transformed surgical care worldwide. However, a thorough examination of the repercussions of COVID-19 on bariatric patients is lacking. We used the 2021-2022 MBSAQIP database to compare the 30-day outcomes following bariatric surgery between patients with preoperative COVID-19 and those without.

METHODS:

The new variable, "Preop COVID-19 Diagnosis" was analyzed in the 2021-2022 MBSAQIP databases. Patients who underwent primary SG and RYGB were included in this study. Using Propensity Score Matching analysis, the cohorts were matched for 23 preoperative characteristics. We then compared 30-day postoperative outcomes between patients with preoperative COVID-19 and those without after SG (analysis 1) and RYGB (analysis 2).

RESULTS:

A total of 250,638 patients were included. The matched cohorts in analysis 1 (n= 1,640) and analysis 2 (n= 598) had similar pre-operative characteristics. As shown in Table 1, Propensity-matched outcomes showed that there were no differences in cardiac complications, pulmonary complications, mortality, staple line leak rates, readmissions, reoperations, and ICU admissions. However, the operative time in patients without preoperative COVID-19 was longer after SG (70.57 $\pm$ 37.56 min vs 69.18 $\pm$ 34.59 min, p=0.012), and RYGB (125.12 $\pm$ 57.27 min vs. 117.98 $\pm$ 45.75 min, p<0.001) compared to patients with preoperative COVID-19.

CONCLUSION:

Patients who underwent bariatric surgery with preoperative COVID-19 have similar 30-day postoperative outcomes compared to patients without preoperative COVID-19 in the post-pandemic period of 2021-2022. These results may imply that nowadays bariatric surgery is a safe procedure in patients with preoperative COVID-19.

A511

Intragastric Bile Reflux, Intraluminal Jejunal Bile Flow and the Anatomic Location of the Pylorus Can be Assessed Using Preoperative Administration of ICG During Laparoscopic One Anastomosis Gastric Bypass (OAGB).

Helmuth Billy *Ventura CA*
Ventura Advanced Surgical Associates

Background

Bile Reflux is an area of controversy in OAGB. ICG is preferentially metabolized in the liver and excreted in the bile. ICG can be utilized to identify the exact location of the pylorus, the presence of bile refluxing into the stomach and the flow of bile past the gastrojejunostomy in OAGB

Methods

10 patients undergoing OAGB received 7.5 mg of ICG one hour prior to induction of anesthesia. All cases were assessed for intra duodenal presence of ICG, Intragastric presence of ICG and jejunal presence of ICG. ICG in the duodenum was assessed to assist in locating the pylorus.

Results

In all cases ICG was visible in the proximal duodenum and allowed easy visualization of the pylorus as a distinct and separate structure from the antrum. In 2 cases ICG was visible in the lumen of the stomach and the presence of intragastric bile was confirmed on OG aspiration of bile. In all ten cases ICG was heavily concentrated in the proximal jejunum and was visible in both the biliopancreatic limb and the common channel but not in the gastric pouch after creation of the gastrojejunostomy

Conclusion

Preoperative administration of ICG can assist in determining the anatomic location of the pylorus. The intra luminal concentration of bile in the jejunum can assist in demonstrating preferential flow of bile into the common channel and away from the gastric pouch during one anastomosis gastric bypass.

A513

ICG Arteriography Allows Preservation of the Right Gastric Artery and Adequate Mobilization of the Proximal Duodenum to Avoid the "Blue Duodenum" Syndrome in Single Anastomosis Duodenal Ileostomy (SADI-s)

Helmuth Billy *Ventura CA*
Ventura Advanced Surgical Associates

Background

As the technique for performing the SADI-s operation has evolved, division of the right gastric artery has been advocated as a necessary means of mobilizing the proximal duodenum. Division of the right gastric artery has been associated with ischemia of the duodenum leading to the intraoperative discovery of a "blue duodenum". Division of the right gastric artery can be avoided with utilization of ICG angiography to allow selective dissection of the duodenum and preservation of the major vascular supply to this area.

Methods

10 patients undergoing SADI-s procedures received 7.5 mg of ICG to allow visualization of the gastroduodenal artery and the blood supply coming off the right gastric artery supplying the proximal duodenum. Dissection of the duodenum was completed using ICG arteriography to minimize disruption of the blood supply to the duodenum.

Results

Preservation of the right gastric artery was accomplished in all cases. Selective dissection of the duodenum using ICG arteriography allowed for adequate mobilization of the duodenum. Hand sewn duodenal ileostomy was completed in all cases. A "Blue duodenum" was avoided in all cases and excellent perfusion of the duodenum was confirmed in all cases using a final perfusion bolus of 7.5 mg of ICG. There were no anastomotic leaks

Conclusion

ICG arteriography of the gastroduodenal artery allows direct visualization of the blood supply to the proximal duodenum can assist in preserving the right gastric artery. Preservation of the right gastric artery utilizing ICG arteriography was associated with better perfusion of the duodenum.

A514

Bowel length bypassed in Single Anastomosis Duodenal Ileal Bypass: Does it matter?

Morgan Wall *San Antonio TX*[1], Richard Peterson *San Antonio TX*[1], Kent Van Sickle *San Antonio TX*[1], Lauren Mitchell [1], Jason Kempenich *San Antonio TX*[1]
UTHSCSA[1]

Background:
SADI offers promising results for populations with obesity as initial bariatric procedure or as revision for weight loss failure after sleeve gastrectomy. We measured total bowel length (TBL) in our SADI patients with a 300-350cm common channel, to determine percentage of bowel being bypassed.

Methods:
This is a retrospective study of SADI procedures at our institution, November 2019 to September 2023. Using linear R2 coefficients, we assessed correlation between total bowel length bypassed (BLB) and percent excess weight lost (EWL). Analysis was conducted to determine if patients achieved greater EWL following SADI-S vs. conversion to SADI.

Results:
54 patients were included. 38 patients' TBL was measured to determine the BLB. Percentage of total BLB ranged from 25 to 63.4%. The linear R2 coefficients for correlation between BLB and EWL at 1, 3, 6, and 12 months, was 0.066, 0.032, 0.029, and 0.012, respectively. Patients who underwent primary SADI-S versus conversion to SADI did not achieve greater EWL at 1 and 3 months post-operatively, but did at 6 and 12 months (Table 1).

Conclusions:
From our analysis, we did not observe a correlation between BLB and EWL for patients undergoing the SADI(S). While patients who underwent primary SADI-S achieved greater EWL, SADI-S conversion was an effective revision option to achieve additional weight loss.

A516

Use of Indocyanin Green for Safe Dissection of Hepato-Gastric Adhesions in Revisional Bariatric Surgery

Andrew Kim *Milwaukee WI*[1], Rana Higgins *Milwaukee WI*[1], Arshia Arshad [1], Tammy Kindel *Milwaukee WI*[1]
Medical College of Wisconsin[1]

Revisional bariatric operations can be extremely challenging due to the fusion of tissue planes and adhesions that form after the index procedure. Dissection of the plane between the liver and stomach can be especially difficult. In this video abstract, we present a case of a laparoscopic conversion of a vertical banded gastroplasty to a Roux-en-Y gastric bypass with paraesophageal hernia repair and a partial gastrectomy. We demonstrate how indocyanin green can be used to safely facilitate takedown of challenging hepato-gastric adhesions.

A512

Long-term (5-year) Nutritional Outcomes following Revisional Roux-en-Y Gastric Bypass (RYGB) for Elderly Patients Aged > 60 Years

Noura Jawhar *Rochester MN*[1], Karl Hage *Rochester MN*[1], Katarzyna Bartosiak *Warsaw* [1], Jack Sample *Rochester MN*[1], Omar Ghanem *Rochester MN*[1]
Mayo Clinic[1]

Background:
Roux-en-Y gastric bypass (RYGB) is associated with a favorable nutritional status in the elderly population with obesity. However, long-term outcomes of revisional RYGB in a specific patient population aged 60 years and older are not well elucidated. This study aimed to report the long-term (5-year) nutritional changes and vitamin deficiencies in patients who underwent revisional RYGB at the age of 60 and older.

Methods:
A retrospective single-center review was conducted for patients aged > 60 years undergoing revisional/conversional RYGB between 2008-2023. Patient demographics, type of primary procedures, and nutritional outcomes were reported at baseline and after 5 years of surgery. We collected values of specific nutritional parameters such as creatinine, vitamin B12, vitamin D3, cholesterol, glucose, hemoglobin, albumin, calcium, and ferritin. A unpaired t-test was used to compare parameter means at baseline and at 5 years.

Results:
A total of 84 patients (81% female, mean age 67.0 ± 4.8, mean preoperative BMI 35.8 ± 9.9) were included. The most commonly performed primary procedure was RYGB (39.3%) followed by vertical banded gastroplasty (VBG) (21.4%). The most common indication for revision was complications from the primary procedure (Table 1). There were no statistical differences for all the evaluated laboratory parameters between baseline and 5-year mean values (Figure 1). In our cohort, we reported no statistically significant vitamin deficiencies 5 years after revisional RYGB.

Conclusion:
Revisional RYGB demonstrates excellent 5-year nutritional outcomes in patients aged 60 years and older, without any reported nutritional deficiencies. Further studies are required to validate our findings.

A518

Florescent Guided Gastric Calibration Tubes and Its Utility in 3 Emerging Operations, OAGB, Magnetic Sphincter Augmentation and 23 cm Single Cartridge Stapler Device

Helmuth Billy *Ventura CA*
Ventura Advanced Surgical Associates

Background

Calibration bougies are common in most bariatric operations including gastric bypass, sleeve gastrectomy and one anastomosis gastric bypass. Standardization of bariatric operations continues to be a challenge. Measurements of gastric pouchs are often estimates rather than accurate measurements. Passage of bougies through the esophgeal hiatus poses potential challenges with poor visualization in the mediastinum and cases of esophgeal perforation have been reported.

Study Design.

Florscent guded gastric calibration tubes inorporated florescent markings at one cm increments. These may improve mediastinal esophageal visualizaiton and allow precise measurements of gastric pouch length during sleeve gastrectomy, gastric bypass and esophageal operations. We utilized a florscent guided calibration tube to evaluate its abiltiy to improve mediastinal esphageal dissection during magnetic sphincter augmentation device placement, creation of a sleeve gastrectomy using a 23 cm single cartridge stapler and measurement of pouch length in one anastomosis gastric bypass

Results

Florescent guided gastric calibration significantly improved visualization of the medistinal esphagus during mediastinal dissection and placement of a magnetic sphincter augmentation device. Visualization of the calibration marks during sleeve gastrectomy using a 23 cm single cartidge stapler successfully allowed precise measurement of the sleeve length allowing for enhanced standardization while using a stapler designed to specifically allow for a standardized sleeve gastrectomy. OAGB where increased gasstric pouch length has become increasingly recomended allowed for improved measurement of pouch length where standard 40 french bougies can;t..

Conclusions

Florescent guided gastric calibration can potentially improve standardization of bariatric operations and decrease risk of mediastinal dissection

A300

Unique Presentation of Chronic Mesenteric Ischemia in a Roux-en-Y Gastric Bypass Patient

Stephanie Kerlakian *Cincinnati OH*[1], Emily Austin *Cincinnati OH*[2], Katherine Meister *Cincinnati OH*[2], Katherine Markesbery *Cincinnati OH*[2]
TriHealth - Good Samaritan[1] Good Samaritan Hospital (TriHealth)[2]

Chronic mesenteric ischemia is most often caused by atherosclerotic disease at the origin of the mesenteric arteries. Typically, it involves two of the three vessels, classically presenting as postprandial abdominal pain manifesting in food fear and weight loss. We report the case of a 64-year-old patient who underwent Roux-en-Y gastric bypass (RYGB) in 2011. In 2021, she developed intermittent abdominal pain, vomiting, and weight loss, with EGD revealing marginal ulceration at her gastrojejunostomy as well as ulcerations more distally within the Roux limb. On further evaluation, it was discovered that prior to bariatric follow up at our institution, this patient was diagnosed with chronic mesenteric ischemia in 2016 secondary to superior mesenteric artery (SMA) stenosis and had undergone multiple angioplasties. Each intervention improved her symptoms for some time prior to redeveloping stenosis and subsequent pain. Eventually she occluded her SMA, but given adequate collateralization from the celiac artery, vascular surgery planned not to intervene again. Her pain worsened, which led to EGD and diagnosis of Roux limb ulceration in 2021. Eventual follow up with our bariatric surgeons led to the realization and ensuing conversation that the sole blood supply to the Roux limb is the SMA, and it cannot rely on collateralization from the celiac artery. In short, in patients with recurrent Roux limb ulceration without other risk factors, chronic mesenteric ischemia must be considered as a potential etiology; furthermore, patients may require repeat interventions on this vessel in order to prevent severe complications.

A298

GERD after Sleeve Gastrectomy - a Prospective Study Using Intraoperative Manometry

Stephanie Kerlakian *Cincinnati OH*[1], Kevin Tymitz *Mason OH*[2], Katherine Meister *Cincinnati OH*[2], Jameil Abou-Hanna *Cincinnati OH*[3], Katherine Markesbery *Cincinnati OH*[2], Angela Fellner[2]

TriHealth - Good Samaritan[1] Good Samaritan Hospital (TriHealth)[2] Tennessee Style Weight Loss[3]

BACKGROUND:

Sleeve gastrectomy (SG) is the most commonly performed bariatric surgery in the United States; however, incidence of de novo gastroesophageal reflux disease (GERD) after SG approaches 40%. While preoperative GERD or preexisting hiatal hernia aid surgeons with regard to counseling, there are no other patient-specific factors that will help determine risk for de novo GERD post-SG.

METHODS:

Intraoperative manometry was performed at the time of SG in adult patients without history of preexisting reflux or hiatal hernia. Measurements of gastroesophageal (GEJ) distensibility at multiple time points during SG were obtained (pre-dissection, post-dissection, and post-SG). Patients answered the GERD quality of life questionnaire preoperatively and postoperatively. Using results from manometry and the questionnaire, the aim is to identify those at risk for development of reflux.

RESULTS:

The distensibility of the GEJ increased significantly from pre-dissection (1.950 mm Hg) to post-SG (3.850 mm Hg) ($p=0.013$), as well as from post-dissection (2.500 mm Hg) to post-SG (3.850 mm Hg) ($p=0.003$). There was no correlation between preoperative distensibilities and GERD quality of life scores at 3 or 6 months postoperatively. A 6 months postoperatively, there is a positive correlation between post-SG distensibility and GERD quality of life scores that approaches statistical significance ($R=0.575$, $p=0.064$) (Fig. 1).

CONCLUSION:

Intraoperative manometry provides information regarding the physiology of the GEJ at different time points during SG that may relate to development of GERD. Additional follow-up data for this pilot study is actively being acquired.