

ASMBS Guidelines/Statements

## American Society for Metabolic and Bariatric Surgery statement on single-anastomosis duodenal switch

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Received May 3, 2016; accepted May 3, 2016

### Preamble

The following statement is issued by the American Society for Metabolic and Bariatric Surgery (ASMBS) in response to numerous inquiries made to the Society by patients, physicians, society members, hospitals, and others regarding single-anastomosis duodenal switch as a primary treatment for obesity or metabolic disease. This recommendation is based on current clinical knowledge, expert opinion, and published peer-reviewed scientific evidence available at this time. The statement is not intended as, and should not be construed as, stating or establishing a local, regional, or national standard of care.

### Statement on single-anastomosis duodenal switch

The single-anastomosis duodenal switch (SADS), also known as the single-anastomosis loop duodenal switch (LDS), single-anastomosis duodenoileal bypass with sleeve gastrectomy (SADI-S), and stomach intestinal pylorus-sparing surgery (SIPS), have recently emerged worldwide as a new bariatric and metabolic procedure. The rationale for this procedure is to address certain limitations and complexities of current standard bariatric and metabolic procedures. The duodenal switch procedure (DS), itself a pylorus-sparing modification of Scopinaro's original biliopancreatic diversion (BPD), minimized complications of marginal ulceration and dumping associated with the BPD and is inarguably associated with the greatest weight loss and remission of diabetes of any bariatric metabolic procedure. Technical complexity and long-term nutritional

deficiencies have limited its acceptance and popularity in the United States. The most recent estimate of bariatric surgery procedures from 2011–2014 shows BPD/DS accounting for only .4% (a decline from 1% in previous years) of all procedures [1]. The SADI-S technique was first described in 2007 as a simplification of the BPD that, like the DS, begins with the creation of a sleeve gastrectomy (SG) (over a 54F bougie) and preservation of the pylorus, but replaces the Roux-en-Y reconstruction with 1 anastomosis comprised of a single-anastomosis duodenoileostomy with a longer 200-cm common channel (later modified to 250 cm because of an unacceptably high rate of hypoalbuminemia) [2,3]. The SADI-S procedure has also been described as a second-step revisional procedure primarily for insufficient weight loss after SG (over a 42F–54F bougie) [4]. In addition, the SADI-S procedure has been modified and described as the LDS, with the SG created over a 40F bougie (instead of 54F) and a 300-cm (instead of 250-cm) common channel to maximize gastric restriction and minimize malnutrition complications [5].

There are currently 4 published studies on single-anastomosis DS procedures (prospective or retrospective case series) with 222 total patients (including second-stage patients) with follow-up from 18 months to 5 years [3–6]. Three of the 4 studies are from a single institution representing a single ongoing consecutive series on the SADI-S that is included in the Clinicaltrials.gov Protocol Registration System. The fourth study compared the LDS modification with a matched gastric bypass cohort. Both sites involved surgeons already experienced with performing standard laparoscopic DS procedures. Given the lack of any randomized or prospective comparative data and the limited data regarding long-term nutritional effects, however, there is insufficient evidence to draw any definitive

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conclusions regarding the safety, efficacy, and durability of these procedures compared with the standard DS procedure. The authors reporting on the SADI-S procedure have raised intestinal adaptation, enteritis, gas bloat, unclear optimal limb lengths, and weight regain as potential long-term concerns unique to the single-anastomosis modification [2]. Revisional strategies after long-term complications of single-anastomosis DS are also not reported in the literature.

The ASMBS will continue to monitor and evaluate emerging data on this procedure and, when appropriate, will issue a formal evidence-based position statement at a future time. Additionally, we encourage advocates of this procedure to collect and report their data and bring it to the ASMBS Pathway for Approval of New Devices and Procedures Committee when the evidence is sufficient to do so. The following recommendations are currently endorsed by the ASMBS regarding SADS for the primary treatment of obesity or metabolic disease:

1. Single-anastomosis duodenal switch procedures are considered investigational at present. The procedure should be performed under a study protocol with third-party oversight (local or regional ethics committee, institutional review board, data monitoring and safety board, clinicaltrials.gov, or equivalent authority) to ensure continuous evaluation of patient safety and to review adverse events and outcomes.
2. Publication of short- and long-term safety and efficacy outcomes is strongly encouraged.
3. Data for these procedures from accredited centers should be reported to the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program

database and separately recorded as single-anastomosis DS procedures to allow accurate data collection.

These recommendations are not intended to impede innovation within our field. The ASMBS understands and supports the need for new and innovative procedures that can further benefit our patient population. The single-anastomosis modification of the DS procedure, however, represents a significant change to a procedure that is historically rarely performed. In addition to potential unique long-term risks without clear benefit, there are nutritional concerns that will require further evaluation and study to ensure the safety of both our patients and our members and to protect them from undue harm.

## References

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