

Surgery

International consensus of experts in gastric sleeve based on the experience of more than 12,000 procedures

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This management guide for gastric sleeve was defined during an international expert panel held in Florida in March 2011¹, attended by experts from several countries who together accounted for over 12,000 patients who underwent laparoscopic vertical gastrectomy or laparoscopic sleeve gastrectomy (LSG) for the treatment of morbid obesity.

The group of surgeons participating in the consensus operated on 12,799 patients with a mean age of 42 years, 26% men, and 76% women. Mean body mass index (BMI) was 44 kg/m², mean hospital stay was 2.5 days, and conversion rate from video to open surgery was 1.05%. Complications were fistulas (1.06%), stenoses (0.35%), and gastroesophageal reflux (12%).

Consensus was established when at least 70% of the experts' responses agreed. Below are the main points of consensus among experts with the percentage in agreement regarding the gastric sleeve procedure.

PATIENT SELECTION

LSG is a valid stand-alone procedure for treatment of morbid obesity (90%). Panelists considered LSG as a valid treatment option for treating patients considered at high risk (96%); candidates for transplantation (liver and kidney) (96%); morbid obesity and metabolic syndrome (91%); patients with BMI of 30-35 kg/m² with comorbidities (95%); patients with inflammatory bowel disease (86%); adolescents with morbid obesity (77%); elderly patients with morbid obesity (100%); and patients with Child's cirrhosis A or B (78%).

REOPERATIONS

Regarding reoperation, the panelists agreed that LSG is an acceptable option for conversion of the gastric band (95%). However, it was recognized that Roux-en-Y gastric bypass, rather than LSG, is the best option to convert a failed gastric band (71%). When a patient undergoes conversion from gastric band to LSG, the operation can be performed in one step (72%), the two step approach is also valid (79%). Even if ≤ 30% of LSG patients are assumed to require a second procedure for weight loss, the panelists decided that LSG is still an excellent procedure (90%).

SURGICAL TECHNIQUE

Regarding stomach stapling, the green load must be used (71%). Transection should begin 2-6 cm from the pylorus (92%), and it is important to exercise caution and keep a reasonable distance from the gastroesophageal junction in the final stapling (96%).

To perform the sleeve, a size 32F-36F bougie should be used (87%). The panel believed that using a bougie < 32F may increase complications and a bougie > 36F could lead to lack of long-term restriction and possible gastric tube dilation. Invaginating suture over the staple line may lead to temporary or permanent reduction of the lumen size (83%). Staples should not be smaller than that of a blue load (1.5 mm) on any part of a vertical gastrectomy (81%). When resecting the antrum, the surgeon should use the green load (2.0 mm) (87%), because the antrum is the thickest part of the stomach. It is important to mobilize the gastric fundus before transection (96%).

COMPLICATIONS

Panelists agreed that fistula, stenosis, bleeding, and gastroesophageal reflux were the most prevalent complications observed after LSG. The use of a stent is a valid treatment option for acute proximal fistula in which conservative therapy has failed (95%), and an unstable patient with a symptomatic fistula requires immediate reoperation (86%). The panel also made some observations regarding to reinforcement of the staple line, stating that the use of reinforcement can reduce bleeding along the line (100%). Complications included hiatal hernia and gastroesophageal reflux disease. Interestingly, the panel stated that only bariatric surgeons should perform sleeve gastrectomy (85%), and that endoscopy should be routine in patients undergoing vertical gastrectomy (70%).

CONCLUSIONS

The article concludes by stating that it does not intend to establish a standard of practice in gastric sleeve, but only to support and encourage the surgeons and surgical societies to develop standard guidelines. "In these times, when so many new surgical technologies and procedures are being developed, it is crucial to provide resources for

surgeons to learn the best practices in a short period of time, in order to achieve optimal procedure results while minimizing complications.”

COMMENT

Gastric sleeve is gaining popularity in the treatment of morbid obesity mainly because of its simplicity and low-cost. However, this procedure still has major complications that are difficult to resolve, requiring guidelines similar to

those presented here with the intent of improving the results. It is a technique that is showing good results; however, long-term studies are still needed for a clearer picture of its actual benefits.

REFERENCES

1. Rosenthal RJ, International Sleeve Gastrectomy Expert Panel, Diaz AA, Arvidsson D, Baker RS, Basso N, et al. International Sleeve Gastrectomy Expert Panel Consensus Statement: best practice guidelines based on experience of > 12,000 cases. *Surg Obes Relat Dis.* 2012;8(1):8-19.