Indications and Outcomes for Conversion of Sleeve Gastrectomy to Roux-En-Y Gastric Bypass

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Introduction

- Laparoscopic sleeve gastrectomy (LSG) has become the most common bariatric procedure performed in the U.S. for extreme obesity.
- Post-operative gastroesophageal reflux disease (GERD) is a common problem.
- Some patients ultimately require revision to a Roux-en-Y gastric bypass (RYGB).
- The objective of this study was to characterize patients undergoing conversion, indications for surgery, and outcomes.

Methods

- This was a retrospective IRB-approved study performed at a single healthcare system containing a tertiary care center.
- Patients who underwent conversion of LSG to RYGB within the University of Pennsylvania Health System (UPHS) between January 2015 and December 2021 were identified.
- Patient demographics, operative findings, imaging, endoscopic reports, and post-operative outcomes were reported.
- Data were assessed using descriptive statistical methods.

Results

- 97 patients who underwent conversion of LSG to RYGB from January 2015 to December 2021 at UPHS were identified.
- The most common indications for revisions were GERD (n=70, 72.2%), obesity (n=24, 24.7%), and oral intolerance (n=3, 3.09%).

Table 1. Patient Characteristics	
Female	89 (91.7%)
Male	8 (8.3%)
Average Age at LSG	37.8 ± 10.8 years
Average Age at RYGB	42.7 ± 10.6 years
Average ASA	2.74
Average Weight pre-LSG	298.9 ±75.0 lbs
Average Weight pre-RYGB	249.9 ± 63.4 lbs
Average BMI pre-RYGB	40.96 ± 8.85 kg/m^2
Average time to revision	44.7 ± 26.4 months

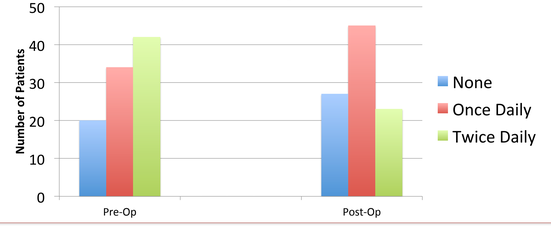
Table 2. Operative Outcomes	
Average Length of procedure	155 ± 55 minutes
Average hospital length of stay	2.64 ±1.08 days
Surgery Type	
Laparoscopic	N=87 (89.7%)
Robotic-Assisted	N=7 (7.21 %)
Open	N=3 (3.09 %)
Post-RYGB Weight Loss	24.47 ± 28.46 lbs
Complications	
Grade I-II	N=21 (21.6%)
Grade III-IV	N=11 (11.3%)

- The common complications included 8 patients with wound infections, 5 patients with anastomotic ulcers, 4 patients with internal hernias or high-grade bowel obstruction, and 2 patients with hematomas.
- There was 1 patient who had a leak post-operatively.

Results

- 80.2% of patients who underwent revision for GERD noted symptomatic improvement at average follow up of 16.3 ± 20.5 months.
- 19.7% of patients who underwent revision for GERD were able to stop their proton pump inhibitor (PPI) after surgery.

Figure 1. Proton Pump Inhibitor (PPI) Usage



Conclusion

- In this cohort, the most common indication for LSG revision to RYGB was GERD (73.2%).
- 80.2% of patients who underwent revision for GERD noted symptomatic improvement, and 19.7% of those patients stopped their PPI post-operatively.
- Patients lost an average of 24.47 additional pounds after revision to RYGB.
- Most complications were minor.

References

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