Minimally Invasive Revisional Bariatric Surgery: Does the Primary Procedure Influence the Postoperative Outcomes?

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Background

The number of revisional bariatric procedures is growing. Minimally invasive revisional bariatric surgery (M-RBS) is more challenging than primary procedures. The aim of this study is to analyze the influence of the primary bariatric operation on M-RBS postoperative outcomes.

Methods

A retrospective analysis was performed on a prospectively collected database of patients who underwent M-RBS between 2012-2019. Adjustable gastric banding (AGB) removal alone was excluded. Patients were divided into two groups according to their index procedure: conversions from a non-stapled procedure (AGB, G1) and conversions from a stapled procedure (G2). Stapled procedures included Roux-en-Y gastric bypass (RYGB), sleeve gastrectomy (SG) and vertical banded gastroplasty. Demographics, operative and postoperative variables were compared between groups.

Results

Two hundred seventeen patients underwent M-RBS; 135 (62.2%) were conversions to SG and 68 (31.3%) to RYGB. Operative approach was laparoscopic in 61.7% and robotic in 38.3% of cases. Insufficient weight loss (89.9%) and gastroesophageal reflux (5.1%) were the main indications for revision. The index operation was non-stapled (G1) in 169 (77.9%) and stapled (G2) in 48 (22.1%) patients. Age, sex, ASA class, obesity-related comorbidities rates, and BMI at revision (G1: 46.5 vs. G2: 42.6, p=0.26) were comparable between groups

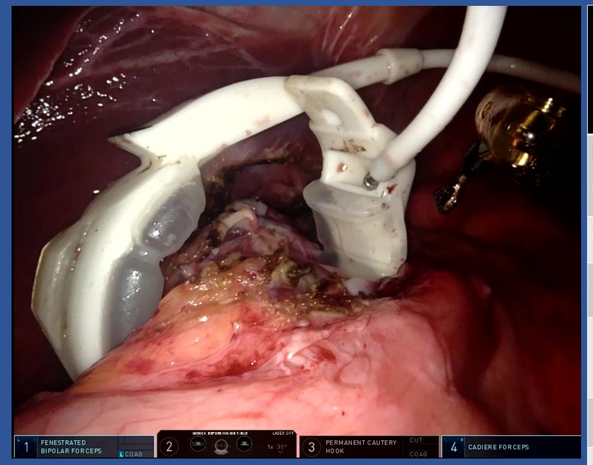


Figure 1. AGB to RYGB conversion

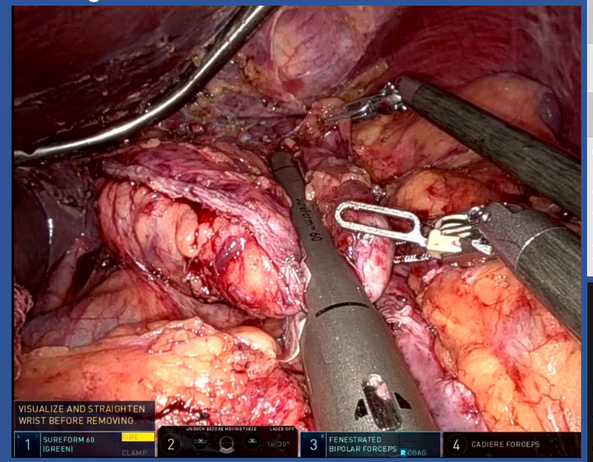


Figure 2. SG to RYGB conversion

	Index procedure non-stapled G1= 169 (77.9%)	Index procedure stapled G2= 48 (22.1%)	P value
Intraoperative complications (%)	0.6	0.1	1
Conversion (%)	0.6	2.1	0.34
Operative time (min)	139	188	<0.001
Lenght of hospital stay (days)	1.7	2.8	0.03
Overall morbidity (%)	4.1	16.7	0.003
Major Morbidity (%)	1.8	8.3	0.02
Readmission (%)	1.8	12.5	0.001
Reoperation (%)	1.8	8.3	0.02
Mortality (%)	0.6	0	1
% Total Weight Loss:			
6 months	15.9	11.9	0.01
12 months	17.8	13.6	0.05
24 months	19.5	18.7	0.83

Conclusion

M-RBS is safe and helps achieve additional weight loss. The nature of the primary bariatric procedure influences M-RBS postoperative outcomes. Operative time and LOS were longer, and morbidity, readmission, and reoperation rates were higher in conversions from a stapled index procedure. Further research on this topic is necessary..