



Revisional Band to Sleeve Gastrectomy: The Cost of Staging Bariatric Procedures

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Introduction:

As we progressively begin to view obesity as a chronic disease we must acknowledge that patients may inevitably require more than one procedure for maintenance and/or continued treatment of this disease. Revisional surgery is thus becoming increasingly common as a distinct category amongst the various bariatric operations. Controversy still exists over the revisional algorithm, choice of operation, and whether to stage these revisions. We examine single surgeon experience looking specifically at outcomes and the cost of staging revisions from gastric bands.

Methods:

N=128 – 64 pts gastric band converted to LSG, 64 patients undergoing primary LSG. 1yr follow up data analyzed. %EWL, OR time, complications, and cost analyzed. Wilcoxon-rank sum test, Chi-squared, and unpaired T-test were used to compare groups. Baseline comorbidities similar.

Results: Outcomes

BMI was similar ($p=0.12$) with a mean of 45 and 48 for the revisional and primary groups respectively, however, mean %EWL at one year was significantly higher for the primary group (50% primary vs 28% revisional, $p<0.001$). Among revisional patients, staging did not affect %EWL at one year (27.8%-1 stage vs 28.2%-2 stage ($p=0.94$)). The complication rate was similarly low for all groups (one stage, and two stage conversion ($p=0.8$)) with a leak rate of 0% for all groups. Mean operative time was 136 ± 30 minutes for SS revision compared to 146 ± 32 minutes for TS ($p = 0.31$).

Results: Cost

Combining revision into one stage resulted in a cost savings for the institution of \$4051 per case (single stage \$11,076 vs two stage \$15,127). As both groups had on average equal LOS (1 day), the added institutional costs resulted mainly from OR staff, anesthesia, and PACU.

While the single stage revision may benefit overall healthcare costs, in the United States, the surgeon sees higher reimbursement with the two-stage procedure. Splitting the conversion into two stages resulted in a financial gain of \$860 per patient (single stage \$1,936, two stage \$2,796) based on our most common private insurance group.

Conclusion

SS revision from gastric band to sleeve gastrectomy is as safe and effective as TS revision. Furthermore, the combined procedure is more cost effective to the health care system and avoids the added expense, inconvenience, and stress to the patient. Therefore, single stage revision should be the standard of care for experienced surgeons and patients who are non-complicated.

Embracing this approach means surgeon compensation will decrease. With average reimbursement for surgical procedures declining over the past 20 yrs many surgeons in the private practice setting have increasing overhead with decreasing payout. Reimbursement in the United States deserves re-evaluation where surgeons are compensated based on quality of care rather than quantity.

Abbreviations:

%EWL (Excess Weight Loss), LSG (Laparoscopic Sleeve Gastrectomy) SS (Single Stage), TS (Two Stage), OR (Operating Room), Pts (Patients)