Gastroesophageal Reflux Disease after Roux-en-Y Gastric Bypass versus Sleeve Gastrectomy

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Background

- Many patients with obesity suffer from gastroesophageal reflux disease (GERD).
- The impact of laparoscopic Roux-en-Y gastric bypass (LRYGB) and laparoscopic sleeve gastrectomy (LSG) on GERD outcomes differs.

Objective

- To compare GERD health-related quality of life (HRQL) and the need for antireflux medications (ARM) after LRYGB and LSG.

Methods

- The medical records of patients who underwent LRYGB or LSG between August 2016-December 2019 with pre and postoperative GERD-HRQL scores were reviewed.
- GERD-HRQL range 0 -115 with lower scores signifying fewer symptoms.
- Statistical analysis included chi-square tests and t-tests.

Results

- 170 patients were included.
- Mean follow-up duration was 1.8 ± 0.9 years with 81% follow-up at 1 year.

Figure 1: Postoperative Total Weight Loss

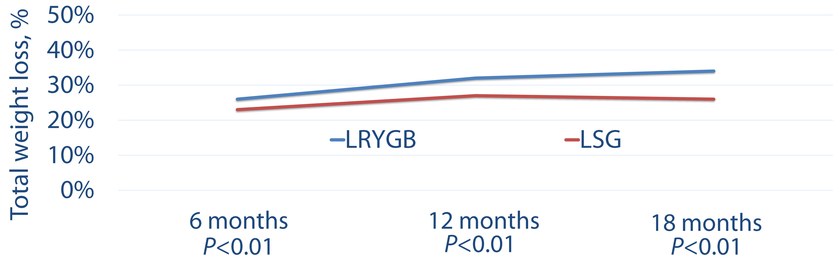
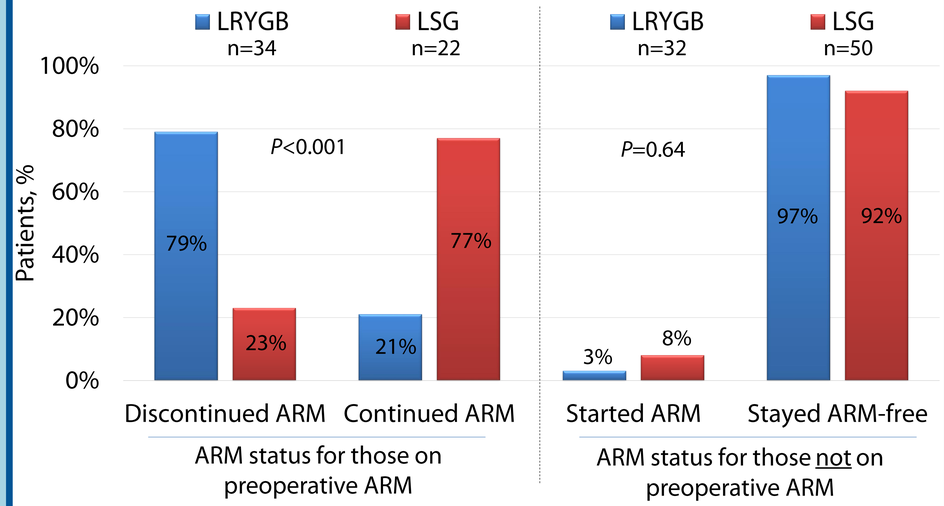


Figure 2: ARM Status at 1 Year Postoperative



Results

Table 1: Demographics, ARM Usage, GERD-HRQL Score

Variable	LRYGB	LSG	p value
N	86	84	
Mean age, years	46.9 ± 12.2	47.7 ± 11.3	0.67
Mean preoperative BMI, kg/m^2	47.2 ± 7.3	45.6 ± 6.1	0.12
Female sex, n (%)	67 (78)	70 (83)	0.44
Requiring ARM, n (%)			
Preoperative	44 / 86 (51)	27 / 84 (32)	0.01
6 months postoperative	14 / 82 (17)	27 / 83 (33)	0.03
12 months postoperative	8 / 66 (12)	21 / 72 (29)	0.02
18 months postoperative	6 / 50 (12)	13 / 44 (30)	0.04
Median GERD-HRQL scores (range)			
Preoperative	7 (0-99); n=86	4 (0-65); n=84	<0.01
Early (1-9 months) postoperative	2 (0-43); n=73	2 (0-76); n=65	0.61
1-year postoperative	2 (0-22); n=26	1 (0-86); n=36	0.07

Conclusions

- While more patients undergoing RYGB take ARMS preoperatively, fewer patients take ARMS postoperatively after RYGB compared to LSG (Table 1).
- In patients taking ARMs preoperatively, LRYGB is more likely to reduce ARM medication requirement when compared to LSG (Figure 2).
- Patients who do not require ARMs preoperatively are not likely to require ARMs postoperatively after either surgery (Figure 2).
- Postoperative GERD-HRQL scores are similar between LRYGB and LSG groups in the early postoperative period (Table 1).
- Patients did have more total weight loss after RYGB compared to LSG at each time point (Figure 1).