GERD vs. Weight loss failure as indication for Conversion of Sleeve Gastrectomy to RYGB: 30-day outcomes comparison using the 2020 MBSAQIP database

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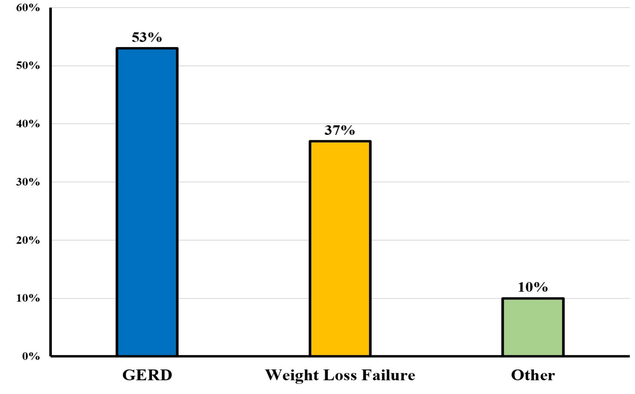
INTRODUCTION

Sleeve gastrectomy (SG) is the most common bariatric procedure worldwide, but there is a moderate conversion rate mainly due to GERD or weight loss failure (defined as insufficient weight loss or weight regain over time, with the BMI maintained > 40 or > 35 with comorbidities). Using the 2020 MBSAQIP database, we evaluated the safety and 30-day outcomes of conversions from SG to gastric bypass (RYGB) conversion due to GERD versus weight loss failure as the leading indications.

METHODS

The new variable, "conversion: final indication" in the 2020 MBSAQIP database was analyzed. Patients with GERD or weight loss failure as a final indication of SG to RYGB conversion were identified. Using the Propensity Score Matching analysis, the cohorts were matched for 23 preoperative characteristics. We then compared 30-day outcomes and bariatric-specific complications in both GERD and weight loss failure groups.

Figure 1. Distribution of surgical indications in SG to RYGB conversion.



RESULTS

Figure 2. Propensity Score Matching Graphs.

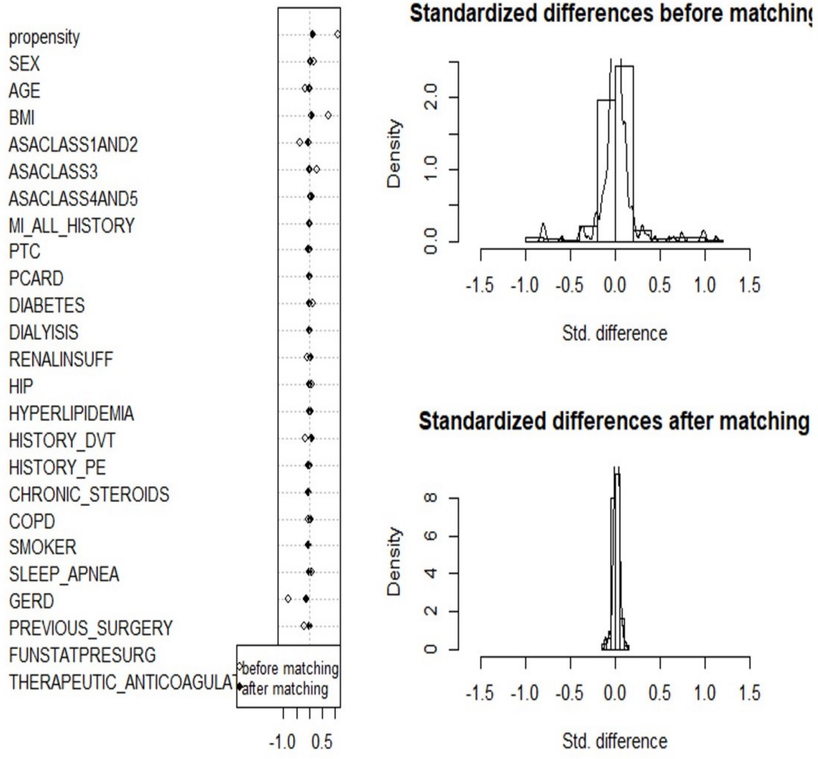


Table 1. 30-Day outcomes of GERD versus Weight loss failure after a laparoscopic conversion from SG to RYGB.

	GERD (n=1112)	Weight loss failure (n=1112)	p*
30-Day outcomes			
Mortality	1 (0.1)	1 (0.1)	1.000
Cardiac complications	11 (0.1)	15 (1.3)	0.541
Pulmonary complications	--	--	--
Renal complications	0 (0.0)	3 (0.3)	0.250
Unplanned ICU admission	7 (0.6)	11 (1.0)	0.481
Blood transfusion	15 (1.3)	13 (1.2)	0.850
Readmissions	86 (7.7)	60 (5.4)	**0.030**
Reoperations	32 (2.9)	24 (2.2)	0.350
Interventions	30 (2.7)	23 (2.1)	0.401
Emergency visits	153 (13.8)	116 (10.4)	**0.017**
Venous thromboembolism	2 (0.2)	5 (0.4)	0.453
Surgical site infection	7 (0.6)	3 (0.3)	0.344
Incisional hernia	3 (0.3)	0 (0.0)	0.250
Wound disruption	--	--	--
Sepsis or septic shock	--	--	--
Conversion to open	10 (0.9)	9 (0.8)	0.818
Postoperative-LOS (days)	1.79 ± 1.64	1.69 ± 1.33	0.116
Operative Time (minutes)	137.93 ± 65.73	139.12 ± 66.68	0.673
Bariatric-specific complications			
Anastomotic/staple line leak	4 (0.4)	6 (0.5)	0.754
Postoperative bleeding	8 (0.7)	3 (0.3)	0.227
Stricture/stomal obstruction	3 (0.3)	5 (0.4)	0.727
Intestinal obstruction	6 (0.5)	1 (0.1)	0.125
Internal hernia	5 (0.4)	2 (0.2)	0.453
Gastrointestinal perforation	1 (0.1)	1 (0.1)	1.000
Anastomotic ulcer	6 (0.5)	1 (0.1)	0.125
Gallstone disease	0 (0.0)	1 (0.1)	1.000

CONCLUSION

GERD as a final indication is the leading etiology for SG to RYGB conversion and is related to more readmissions and emergency visits with similar postoperative outcomes such as mortality, reoperations, and interventions compared with the conversion due to weight loss failure. The SG to RYGB conversion for both indications is a safe and feasible operation with acceptable 30-day outcomes.