Weight Loss Failure After Adjustable Gastric Band: Conversion to Sleeve Gastrectomy or Conversion to Roux-en-Y Gastric Bypass? Analysis Using the MBSAQIP Database

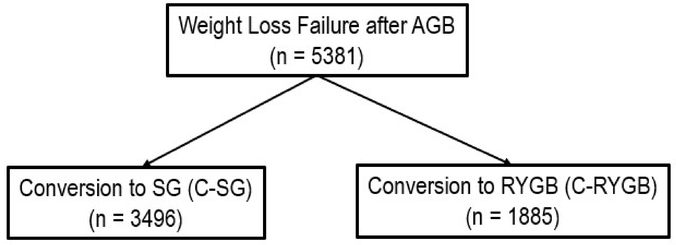
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INTRODUCTION

Adjustable Gastric Band (AGB) conversion represents 41.3% of all the conversion procedures performed during the 2020-2021 period in the MBSAQIP database. 65.3% of those AGB conversions were performed due to weight loss failure (WLF). First, we aim to determine 30-day outcomes between conversion from AGB to SG (C-SG) and to RYGB (C-RYGB). Second, identify the factors associated with overall complications after surgery.

METHODS

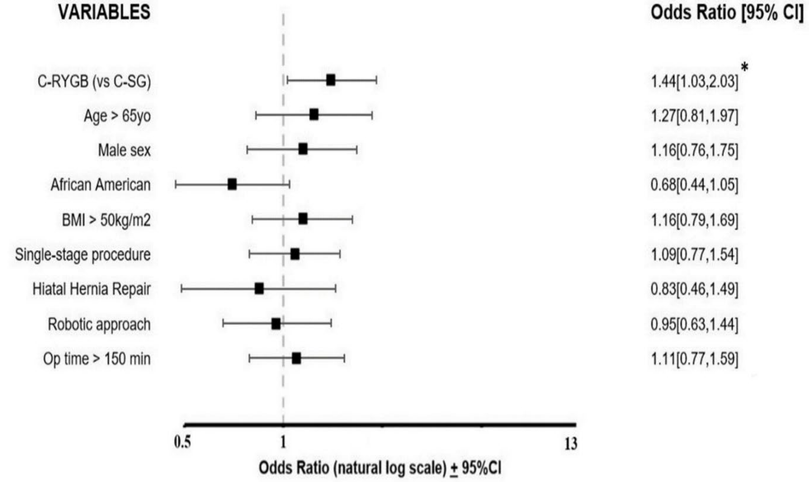
The new variable, CONV_PREV_PROC in the 2020-2021 MBSAQIP database was analyzed. Patients who underwent C-SG and those who underwent C-RYGB due to WLF were identified. We compared preoperative characteristics and 30-day outcomes. In addition, a multilogistic regression for overall complications was performed.



RESULTS

- Preoperative characteristics showed that patients who underwent C-RYGB had higher BMI and comorbidities such as diabetes mellitus, obstructive sleep apnea, and GERD. Additionally, the C-RYGB group showed higher incidence of single-stage procedure, meanwhile, the C-SG group had higher rates of concomitant hiatal hernia repair.
- Longer operative time (160.29 + 74 min vs 100.67 + 51 min, p<0.001) and hospital length of stay (1.72 + 1 days vs 1.30 + 1 days, p<0.001) were found in patients who underwent C-RYGB.
- In terms of the 30-day outcomes, C-RYGB showed higher percentage of overall complications (4.9% vs 2.4%, p<0.001), surgical complications (2.6% vs 1.2%, p<0.001) such as surgical site infection, and medical complications (3.1% vs 1.4%, p<0.001) such as unplanned ICU admission and blood transfusions. Consequently, the C-RYGB group had increasing rates of reoperations (2.7% vs 1.3%, p=0.001), readmissions (5.4% vs 2.4%, p<0.001), and emergency visits (8.4% vs 4.4%, p<0.001). Interestingly, both conversion procedures had similar leak and bleeding rates.
- In regards to weight loss, both procedures had comparable 30-day TBWL (5.82 + 5.01 kg vs 5.54 + 15.56 kg, p=0.313)
- A multilogistic regression analysis was performed, C-RYGB (OR 1.44, p=0.033, CI 95% 1.03-2.03) was associated with higher overall complications. Conversely, single-stage procedure and concomitant HHR were not statistically significant.

Figure 1. Factors associated with 30-day Overall Complications after Adjustable Gastric Band conversion



*p value <0.05. C-RYGB: Conversion from AGB to SG, C-SG: Conversion from AGB to SG, BMI: Body Mass Index, LOS: Length of Stay

CONCLUSION

The incidence of AGB conversion remains high over the last years and we anticipate that the number of conversions will continue to increase. C-SG showed lower rates of overall complications compared to C-RYGB, however, bariatric-specific complications were comparable. Prospective studies are recommended to determine long-term outcomes.