GERD after sleeve gastrectomy: persistent obesity may not be at fault

Aisha Inuwa MS[1], Danielle Grossman MD[2,3], Chaitanya Vadlamudi MD, MBA[4], Ivanesa Pardo MD, FACS, FASMBS[1,3], Yewande Alimi MD, MHS[1,2,3]

[1]Georgetown University School of Medicine , [2]MedStar Georgetown University Hospital, [3]MedStar Washington Hospital Center, [4]MedStar Southern Maryland Hospital

Introduction

- Sleeve gastrectomy (SG) is the most routinely performed bariatric procedure in the world.
- When compared to Roux-en-Y gastric bypass (RNY), SG is found to be equally effective in improving weight loss, quality of life, and complications for up to 3 years.
- Many studies have noted that gastroesophageal reflux disease (GERD) is a common complication of SG – occurring in up to 76% of patients after SG.
- The treatment of choice is often conversion to RNY however, it remains unclear what factors put patients at increased risk of having symptomatic GERD that requires RNY conversion.
- The aim of this study is to evaluate if persistent obesity is a driver for GERD symptoms following sleeve gastrectomy.

Methods

- A retrospective analysis in which patients who underwent RNY after sleeve gastrectomy at MedStar Washington Hospital Center between January 2019 and March 2022 were evaluated.
- The inclusion criteria were patients who had RNY after sleeve gastrectomy.
- Exclusion criteria were patients who had no history of sleeve gastrectomy.
- Operative and pathology reports with pre-op BMI, pre- and post-op diagnosis, operative procedure, and complications were evaluated.
- BMIs and post-op symptoms were tracked for up to 6 months after RNY.

Results

Characteristics	
Age in years	
Range	32 - 70
Mean	43.8
Sex (%)	
Male	1 (2%)
Female	49 (98%)
Pre-op BMI	
Range	23.6 - 51.6
Mean	37.5

Table 1: Patient characteristics.

Pre-op diagnosis	
Reflux after sleeve gastrectomy	49
Paraoesophageal hernia	16
Partial gastric outlet obstruction	3
Recurrent staple line leak	1
Refractory, non-healing and symptomatic gastric ulcer	1

Table 2: Indications for surgery.

Resolution	
Complete resolution	24 (50%)
Partial resolution	7(14.6%)
No resolution	17 (35.4%)
Complications	
None	30
Strictures	7
SBO	2
Other	12
Post-op BMI	
Range	22.8 - 42.9
Mean	32.5
Average BMI loss	5.6

Table 3: Outcomes at 6 months.

Conclusion

- GERD after sleeve gastrectomy occurs regardless of BMI.
- Unexpectedly, though not statistically significant, those with ongoing symptoms had more weight loss following conversion, compared to those with complete resolution or partial resolution of symptoms.

Limitations

- This is a single-institution retrospective study.
- This review cannot fully account for the objective resolution of symptoms based on patients' subjective reports.

References

1. Chaar ME, Lundberg P, Stoltzfus J (2018) Thirty-day outcomes of sleeve gastrectomy versus Roux-en-Y gastric bypass: first report based on metabolic and bariatric surgery accreditation and quality improvement program database. Surg Obes Relat Dis 14:545–551
2. Kehagias, I., Karamanakos, S.N., Argentou, M. *et al.* Randomized Clinical Trial of Laparoscopic Roux-en-Y Gastric Bypass Versus Laparoscopic Sleeve Gastrectomy for the Management of Patients with BMI < 50 kg/m² . *OBES SURG* **21,** 1650–1656 (2011). https://doi.org/10.1007/s11695-011-0479-x
3. Sancho Moya, C., Bruna Esteban, M., Sempere Garcia-Arguelles, J., Ferrer Barcelo, L., Monzo Gallego, A., Mirabet Saez, B., Mulas Fernandez, C., Albors Baga, P., Vazquez Prado, A., Oviedo Bravo, M., Montalva Oron, E. (2022). The impact of sleeve gastrectomy on gastroesophageal reflux disease in patients with morbid obesity. Obesity Surgery, 32, 615-624. https://dx.doi.org/10.1007/s11695-021-05808-w
4. Mocian, F., Coros, M. (2021). Quality of life assessment before and after laparoscopic sleeve gastrectomy: a prospective study. European Review for Medical & Pharmacological Sciences, 25, 6934-6940. https://dx.doi.org/10.26355/eurrev_202111_27242