

Dysphagia Occurs with Increased Prevalence After Roux-en-Y Gastric Bypass but not After Laparoscopic Sleeve Gastrectomy: A Large Population Based Study

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Background

While upper gastrointestinal symptoms that occur more frequently in obese patients, such as GERD, largely improve following bariatric surgery, data regarding the effects of bariatric surgery on dysphagia is scant and conflicting. It is unknown whether the incidence of dysphagia after bariatric surgery would differ based on the type of surgery. We use big data to compare the incidence of dysphagia following laparoscopic gastric sleeve (LGS) and Roux en Y gastric bypass (RNY) in morbidly obese patients.

Study Design

The Explorys national database (Cleveland, OH, USA), an aggregate of de-identified patient data from 26 US healthcare systems from the year 1999 to July of 2019. SNOMED classification was used to identify patient populations with the following terms: “morbid obesity”, “RNY”, “LSG”, and “dysphagia.” Patients with morbid obesity who underwent either RNY or LSG and developed dysphagia at least one day post-operatively were identified through the temporal attributes feature on Explorys. We compared this to a control group of patients with morbid obesity who did not undergo LSG or RNY and developed dysphagia.

Results

We identified 1,494,640 morbidly obese patient. Prevalence of dysphagia among the 1463390 Patients who did not undergo bariatric surgery was 5% (N=79510). 6030 patients (0.4%) underwent RNY, of whom 1520 (25%) developed dysphagia (RR=4.64, P<0.0001). 22970 (1.5%) underwent LGS, of whom 1150 (5%) developed dysphagia (RR=0.92, P=0.005). Etiology of dysphagia in both groups varied and was mostly unable to be determined from the database (**Table 1**).

Type of dysphagia	Morbid obesity excluding RYN or LSG (%)	RYN and morbid obesity (%)	LSG and morbid obesity (%)
Achalasia	1020 (0.0697)	20 (0.33)	20 (0.087)
Stricture	5670 (0.387)	150 (0.49)	130 (0.0566)
EOE	580 (0.0396)	0 (0)	10 (0.0435)
Esophageal Dysmotility	4590 (0.314)	100 (1.66)	150 (0.653)
Esophageal Mass	840 (0.057)	0 (0)	0 (0)
Esophageal web/ring	1450 (0.1)	30 (0.5)	40 (0.174)

Conclusions

We found that dysphagia was significantly more prevalent after RNY but not LGS. Specific etiology of new dysphagia after RNY is mostly unknown. Further research specifically investigating endoscopic and manometric findings after RNY would be warranted.

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