

Surgical management of achalasia in the bariatric surgery population: a single institution experience

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BACKGROUND

Achalasia in the morbidly obese population is reported to coexist with a prevalence of 0.5-1%. Patients with both diagnoses should be offered treatment, however the optimal achalasia intervention and timing relative to bariatric surgery is unclear.

METHODS

Patients were identified in a retrospective review of the electronic medical record in an academic institution. Of 245 patients diagnosed with achalasia between 2012-2019, 12 underwent bariatric surgery and were included. Variables collected include: type of achalasia (Chicago classification), achalasia treatment method, time interval between achalasia diagnosis and bariatric surgery, type of bariatric surgery, complication(s) of bariatric surgery, response to achalasia treatment, and follow up. Patients were divided into two groups based on timing of achalasia diagnosis relative to bariatric surgery.

RESULTS

Group 1 consisted of three patients with achalasia diagnosed prior to bariatric surgery (Table 1). Two underwent laparoscopic Heller myotomy (LHM) and one had a Per Oral Endoscopic Myotomy (POEM). All three patients underwent gastric bypass (LGB) between 2-5 years after achalasia diagnosis/treatment. One suffered severe reflux and regurgitation postoperatively, requiring radiofrequency energy application to the lower esophageal sphincter. Eventually, all three experienced relief of dysphagia at one year.

Group 2 consisted of nine patients with bariatric surgery prior to achalasia diagnosis (Table 2). The mean age was 60 years old. There was an even distribution of achalasia subtype based on Chicago classification. Initial bariatric operations were 5 LGB, 2 laparoscopic sleeve gastrectomy (LSG), 1 duodenal switch, and 1 lap band. One LSG patient underwent simultaneous LHM with conversion to LGB. Mean duration between the bariatric surgery to achalasia diagnosis was 8.3 years. Achalasia treatment was varied and included pneumatic dilation (1), Botox injection (1), POEM (1), LHM (6). Most patients underwent LHM (6/9) and had initial improvement; however, all patients save two (4/6) had recurrent dysphagia. One LHM required esophagectomy for persistent dysphagia. One POEM patient had initial improvement followed by recurrent dysphagia at 1 year. Postoperative bariatric complications such as gastrojejunal anastomotic strictures (2), confounded the reporting of dysphagia symptoms.

Table 1. Achalasia treatment prior to bariatric surgery (Group 1)

Patient	Type of achalasia	Treatment of achalasia	Response to treatment	Time Interval achalasia → bariatric surgery	Bariatric surgery	Bariatric surgery complication	Follow up	Additional Tx	Response to achalasia symptoms
1	3	POEM	Resolution of dysphagia	10 months	RYGB	None	3 yrs	None	No dysphagia, good weight loss
2	Not reported	Robot LHM without fundoplication	Resolution of dysphagia	2 months	RYGB	GJ stricture	1 yr	EGD with GJ dilation x2	Rare dysphagia
3	1	LHM with Dor fundoplication	Resolution of dysphagia	5 years	RYGB (lap to open)	None	3 yrs	Stretta (RFA of GEJ)	1 year: Regurgitation, severe GERD, aspiration pneumonia 2 yrs s/p Stretta: No dysphagia, intermittent regurgitation and nausea

Peroral endoscopic myotomy (POEM); roux en-y gastric bypass (RYGB); laparoscopic Heller myotomy (LHM); gastrojejunostomy (GJ); esophagogastroduodenoscopy (EGD); radiofrequency ablation (RFA); gastroesophageal junction (GEJ)

Table 2. Bariatric surgery prior to achalasia diagnosis (Group 2)

Patient	Time interval bariatric surgery → achalasia	Type of achalasia	Treatment of achalasia	Length of follow up (after achalasia)	Response to treatment	Need for further treatment
Lap band						
4	8 yrs	1	Lap band removal + Botox + PD (30mm)	4 yrs	Mild improvement	Repeat dilations
RYGB						
5	13 yrs	1	Stent + POEM + PD (20mm)	1 yr	Initially good, recurrent dysphagia at 1 yr	Repeat dilation of GJ and GEJ at 1 yr
6	12 yrs	2	LHM	2 yrs	Initially good, recurrent dysphagia at 2 mo, aspiration pneumonia	Multiple repeat dilations Recommended for esophagectomy Comfort care measures pursued
7	10 yrs, 3 mo s/p truncal vagotomy	3	LHM with HH repair	2 yrs	Persistent dysphagia, severe reflux, chest pain	Remnant gastrostomy tube placement Esophagectomy c/b anastomotic leak
8	4 mo	1	Robot LHM	2 mo	Resolution of dysphagia	
9	15 yrs	3	Botox	Lost to follow up	Unknown	
Sleeve gastrectomy						
10	1 yr	2	LHM	5 mo	Minimal improvement	Repeat EGD at 3 and 5 months post op Tortuous esophagus and incisura stenosis s/p dilation of sleeve
11	6 yrs	3	Robot LHM, conversion to RYGB	2 yrs	Initial improvement, but then recurrent dysphagia	EGD dilation of GJ stricture Follow up EGD with noted esophageal spasm
Duodenal switch						
12	9 yrs	2	LHM + HH repair with mesh, J-tube	3 yrs	Resolution of dysphagia	Chronic malnutrition

Pneumatic dilation (PD); peroral endoscopic myotomy (POEM); gastrojejunostomy (GJ); gastroesophageal junction (GEJ); laparoscopic Heller myotomy (LHM); esophagogastroduodenoscopy (EGD); roux en-y gastric bypass (RYGB); hiatal hernia (HI)

CONCLUSIONS

Successful management of achalasia in the bariatric surgery patient population is challenging. In our study, patients who underwent treatment for achalasia prior to bariatric surgery had more favorable symptom resolution than those in which bariatric surgery preceded achalasia treatment. Improved screening of dysphagia symptoms pre-bariatric surgery may improve outcomes. Whether these interventions should be performed concurrently, or in a particular sequence, remains unclear and future prospective studies are needed.