Management of Gastroesophageal Outflow Obstruction with Heller Myotomy and Conversion of Sleeve to Roux En Y Gastric Bypass

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Background

- Gastroesophageal reflux is a well described phenomenon after sleeve gastrectomy, however there is paucity of data on dysmotility in the sleeve gastrectomy population
- Since the fundus has already been removed, the classic Heller Myotomy with Dor Fundoplication cannot be performed without causing significant postoperative reflux disease.
- Here we review the outcomes of post-sleeve gastrectomy patients with gastroesophageal outflow obstruction that underwent Heller myotomy and conversion to Roux En Y Gastric bypass.

Methods

- Single-institution, retrospective case series
- Inclusion criteria:
  - Patients over the age of 18 years
  - History of sleeve gastrectomy who had a Heller myotomy and conversion to Roux En Y Gastric Bypass between the years of 2017 and 2023
- Gastroesophageal junction outflow obstruction diagnosed by gold standard High Resolution Manometry based on the Chicago Classification v4.0
- Primary outcome: symptom improvement at time of first follow-up 2-4 weeks post-operatively
- Secondary outcomes:
  - Postprocedural complications
  - Hospital length of stay
  - Time to oral intake
  - Symptom recurrence rate

Results

- Eight patients included

Characteristic	Median [25%, 75%] or f (%)
Age (years)	55 [43,59]
Sex (female)	8 (100%)
Race (Caucasian)	6 (75%)
BMI (kg/m2)	34 [30,44]
LES Resting Basal Pressure (mmHg)	57 [49,62]
LES Residual Pressure (mmHg)	22 [17,25]
DeMeester Score	37 [10,58]

Table 1. Patient demographics

Characteristic	Median [25%, 75%] or f (%)
Heller myotomy performed at time of conversion	6 (75%)
Heller myotomy performed in staged fashion	2 (25%)
Procedure length (min)	136 [109,164]
Intraoperative complications	0 (0%)
Time to diet resumption (days)	2 [1,3]
Length of stay (days)	2 [1,3]
90-day complications	1 (13%)
Symptom improvement at post-op follow up	8 (100%)
Symptom recurrence	1 (13%)

Table 2. Surgical characteristics and outcomes

Discussion

- Heller myotomy with conversion to Roux En Y Gastric Bypass is effective and safe in the management of gastroesophageal junction outlet obstruction.
  - No intraoperative complications
  - Only one patient had a 90-day complication which was post-operative leak requiring takeback for omental patch
- Heller myotomy with conversion to Roux En Y Gastric Bypass can successfully prevent gastroesophageal reflux disease in patients with a history of sleeve gastrectomy who have gastroesophageal junction outlet obstruction.
  - Only one patient had symptomatic recurrence 15 months after Heller and bariatric revision

Future Directions

- Increase sample size to further test the effectiveness of Heller myotomy performed at the time of conversion to Roux En Y gastric bypass compared to performance in a staged fashion.
- Incorporate data from other institutions to obtain data from a more diverse patient sample.

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