Clinical success and rates of gastrointestinal reflux disease (GERD) with longer-term follow-up for per-oral endoscopic myotomy (POEM) patients in a single North American tertiary care center

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Background

Per-oral endoscopic myotomy (POEM) is a minimally invasive endoscopic intervention for achalasia and other esophageal motility disorders that has shown initial success as an alternative to Heller myotomy. This procedure has been available since 2008 in Japan, but there is limited long-term data for patients in North America.

Methods

This was a single-institution, retrospective review of consecutive POEM cases performed by a single surgeon-endoscopist team from 06/10/2011 - 07/29/2016. 53 patients were included in this cohort who are now 8 or more years status-post POEM.

OUTCOMES EXAMINED

1) Post-operative Eckardt scores

2) Recurrent GERD symptoms

3) Persistent proton pump inhibitor (PPI) use

4) Subsequent necessary interventions (i.e. dilations, anti-reflux procedures and esophagectomy).

Results for Effectiveness of Treating Achalasia

- Median Eckardt score after POEM was 0 with an interquartile range of 0-1.
- Over an 8-year period, 20% of patients required at least one balloon dilation.
- For those who were dilated, the first dilation occurred a mean of 3.3 years after the index operation.
- For those who required dilation the average number of dilations was 1.8.
- A single patient (1.9%) required esophagectomy for achalasia refractory to all other interventions.

Results for Effectiveness of Treating Reflux Symptoms

1. 64% of patients reported GERD symptoms past their post-operative check in the first month.
2. Only 41% experienced GERD symptoms at their most recent follow-up visit (range: 4-8 years post procedure).
3. 71% of patients remained on at least intermittent PPI therapy.
4. Only 1 (1.9%) patient required anti-reflux surgery, but an additional 2 patients (3.7%) had significant enough symptoms to warrant referral for consideration of an anti-reflux procedure but never underwent surgery.

Conclusion

- POEM remains a **durable minimally invasive treatment for achalasia.**
- Long-term concerns about **sequelae of GERD** must continue to be monitored after POEM.
- A **dilation rate of 20%** is concerningly **high**, although this may reflect cases performed during our **initial learning curve.**