Personalized Approach to Epiphrenic Diverticula utilizing EndoFLIP

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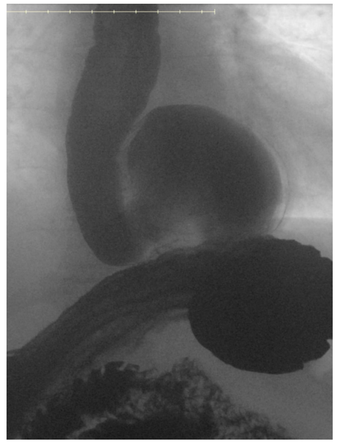
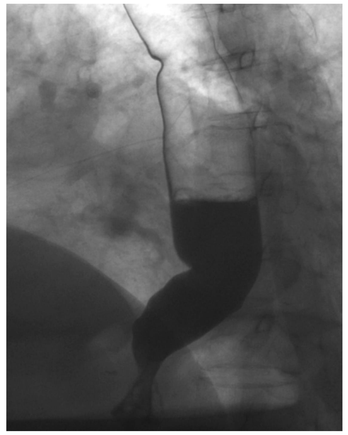
INTRODUCTION

- Incidence = 3%
- Most cases are caused by increased intraluminal esophageal pressure due to dysmotility
- Surgical options: open vs MIS diverticulectomy
- Approaches: thoracic, intra-abdominal or combo *with* esophageal myotomy

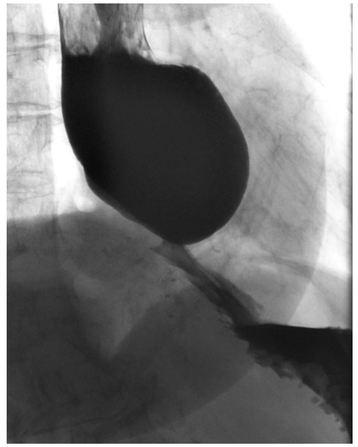
CASE ONE

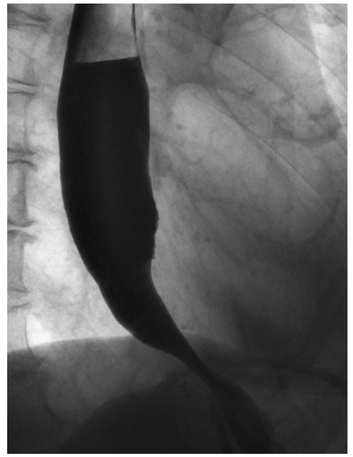
- 78yo F presented with progressive dysphagia, regurgitation
- Preoperative workup included manometry (40% failed swallows, 20% weak swallows, and normal resting LES pressure however the probe may not have traversed the LES) and EGD revealing a large epiphrenic diverticulum
- Balloon dilation performed without symptom improvement
- Intra-operative EndoFLIP findings revealed poor esophageal distensibility, < 2.0
- Stapled diverticulectomy performed with myotomy
- Origin: spontaneous





Case 1: Pre-operative (LEFT) and post operative (RIGHT) esophagram findings





Case 2: Pre-operative (LEFT) and post operative (RIGHT) esophagram findings

CASE TWO

- 69yo F with a history of hiatal hernia repair and Toupet fundoplication presented with dysphagia and progressive regurgitation of undigested food
- Preoperative workup included manometry (normal LES pressure with a weak DCI) and EGD which confirmed a single, large diverticulum shortly before the GE junction with a broad 3–4 cm base.
- Intraoperative EndoFLIP findings revealed significant esophageal distensibility, > 20.0
- A recurrent paraesophageal hernia was reduced with takedown of existing Toupet fundoplication followed by stapled diverticulectomy without myotomy
- Origin: presumed to be iatrogenic secondary to esophageal muscular injury and increased backpressure secondary to existing fundoplication

DISCUSSION/CONCLUSION

- EndoFLIP allowed for personalized, selective myotomy
- Minimal post-op complications
- Both patients reported symptomatic improvement upon follow up

Sources: Sato Y, Tanaka Y, Ohno S, Endo M, Okumura N, Takahashi T, Matsuhashi N. Optimal surgical approaches for esophageal epiphrenic diverticulum: literature review and our experience. Clin J Gastroenterol. 2023 Jun;16(3):317-324. doi: 10.1007/s12328-023-01765-2. Epub 2023 Feb 1. PMID: 36723767; PMCID: PMC10199843.
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