

Minimally Invasive and Novel Therapeutics (M.I.N.T.)
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POEM after Heller Myotomy

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The MetroHealth System



Outline

- Case introduction
- Current “best-practice”
- Case conclusion



Case Introduction

43 year old male s/p laparoscopic Heller/Toupet in 2009 for achalasia.

-Dysphagia returned in late 2021 (initially liquids, then more solids) with weight loss

PMH: Obesity, OSA, Asthma

PSH: Laparoscopic Heller/Toupet (2009). Appendectomy (age 10), Inguinal hernia repair (2010), Multiple EGDs with dilation

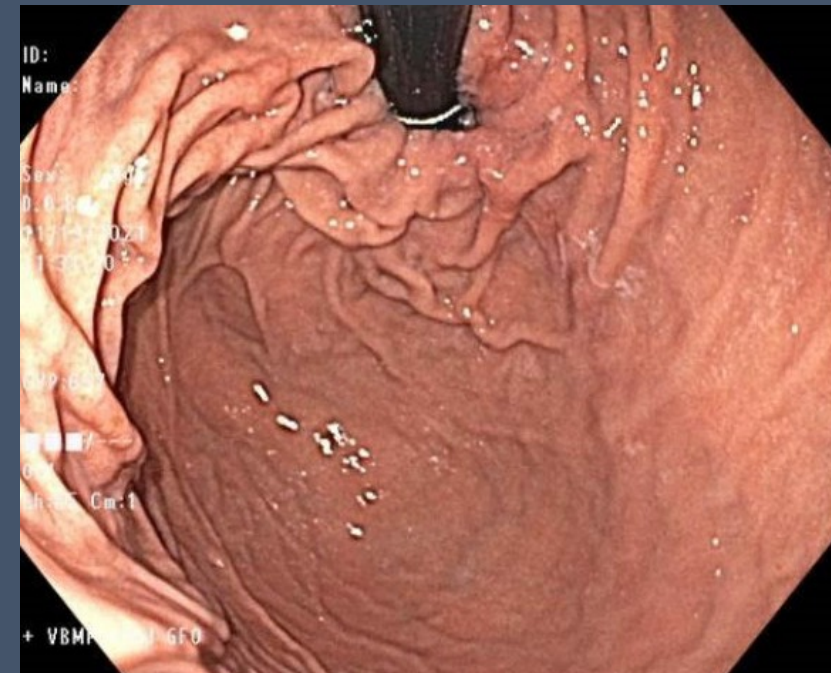
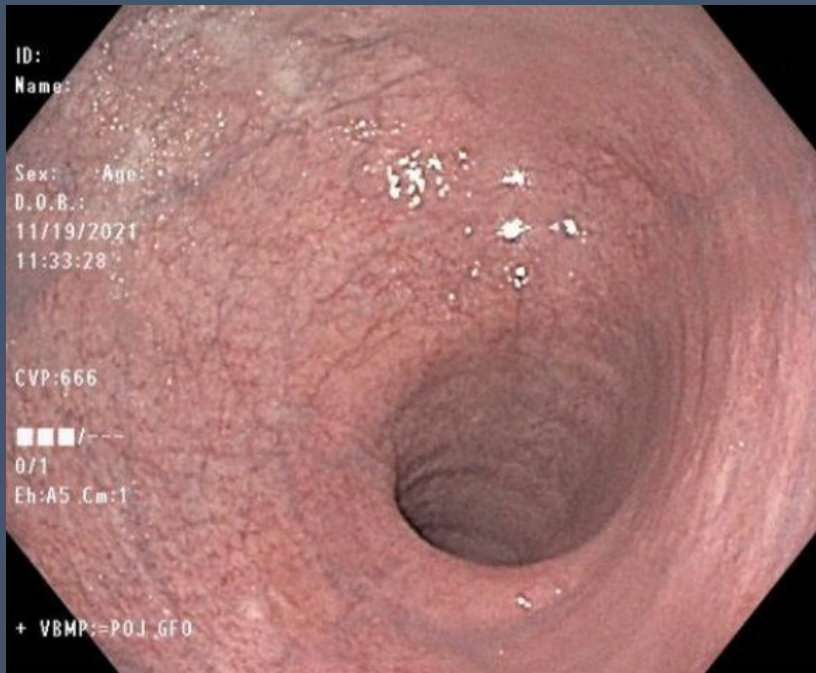
Meds: Inhaler, Neurontin, Omeprazole

Eckardt Score: 7

Physical exam: BMI: 35 kg/m².

Work up

EGD



Work up

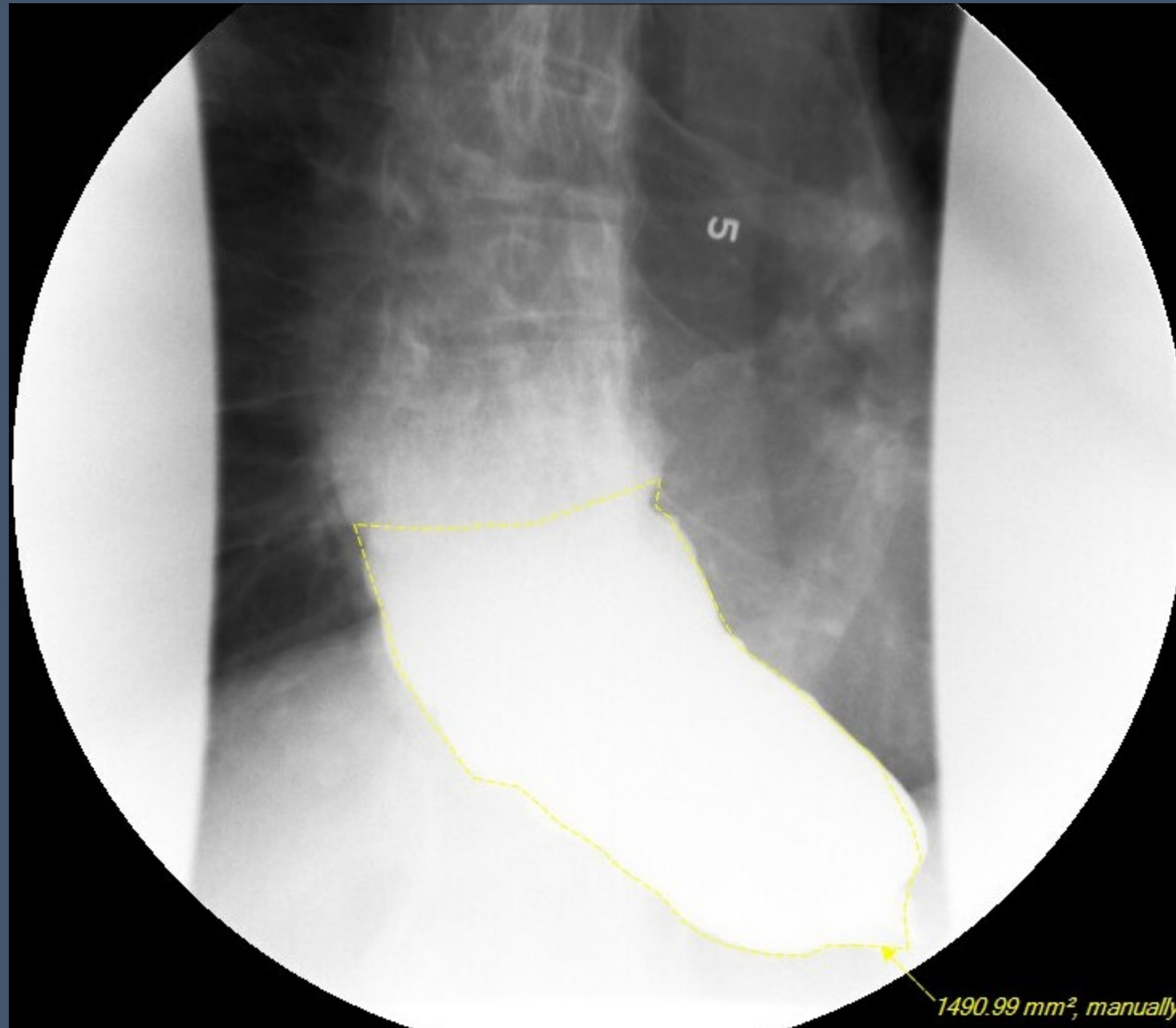
Manometry

- Absent peristalsis
- LES unable to be assessed (catheter could not pass)

Conclusions: absent peristalsis

Work up

Timed-barium
esophagram



HARVARD
MEDICAL SCHOOL



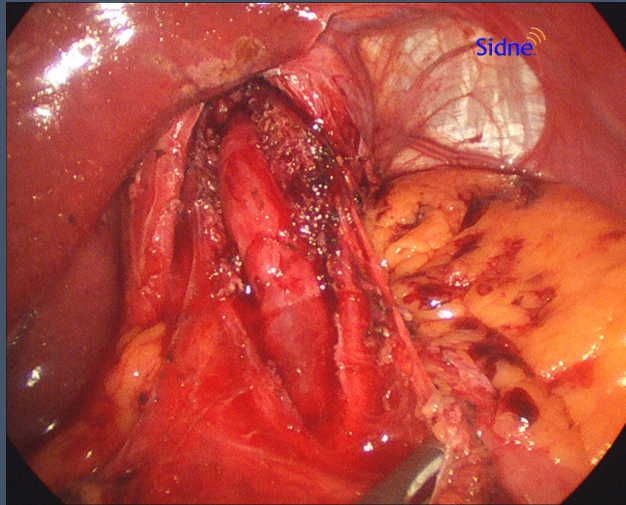
What next?

Current “Best Practice”

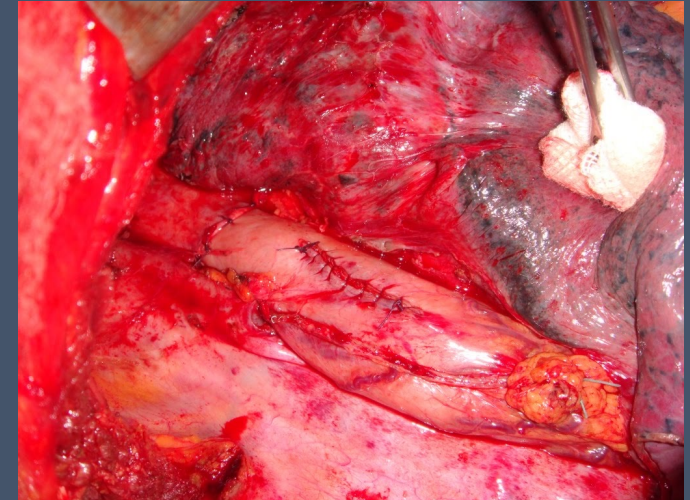
Pneumatic dilation?



Repeat Heller?



Esophagectomy?



Another Alternative?

ORIGINAL ARTICLE: Clinical Endoscopy

Per-oral endoscopic myotomy in patients with or without prior Heller's myotomy: comparing long-term outcomes in a large U.S. single-center cohort (with videos)



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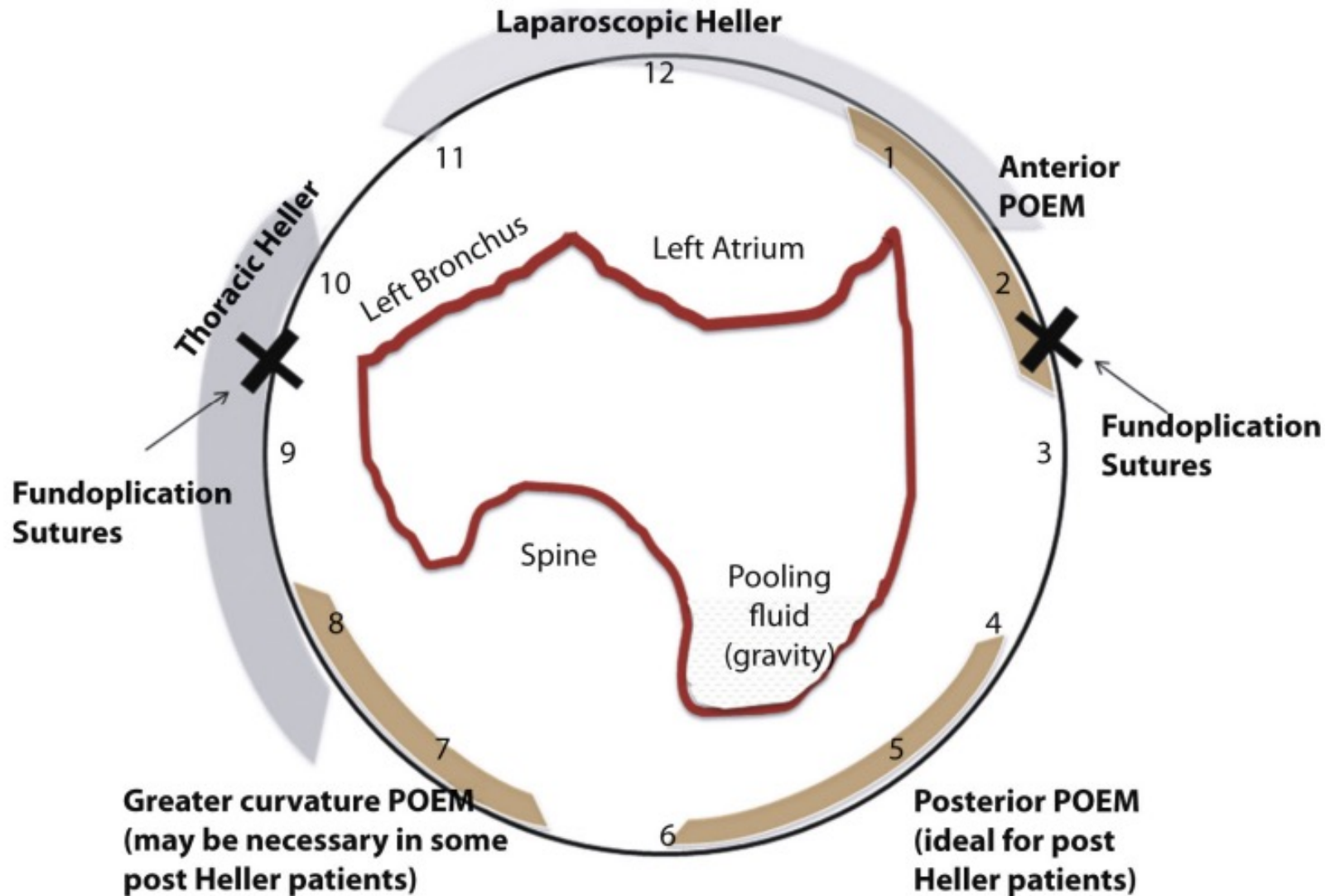


Figure 2. POEM orientations and landmarks for patients with prior Heller's myotomy. *POEM*, per-oral endoscopic myotomy.

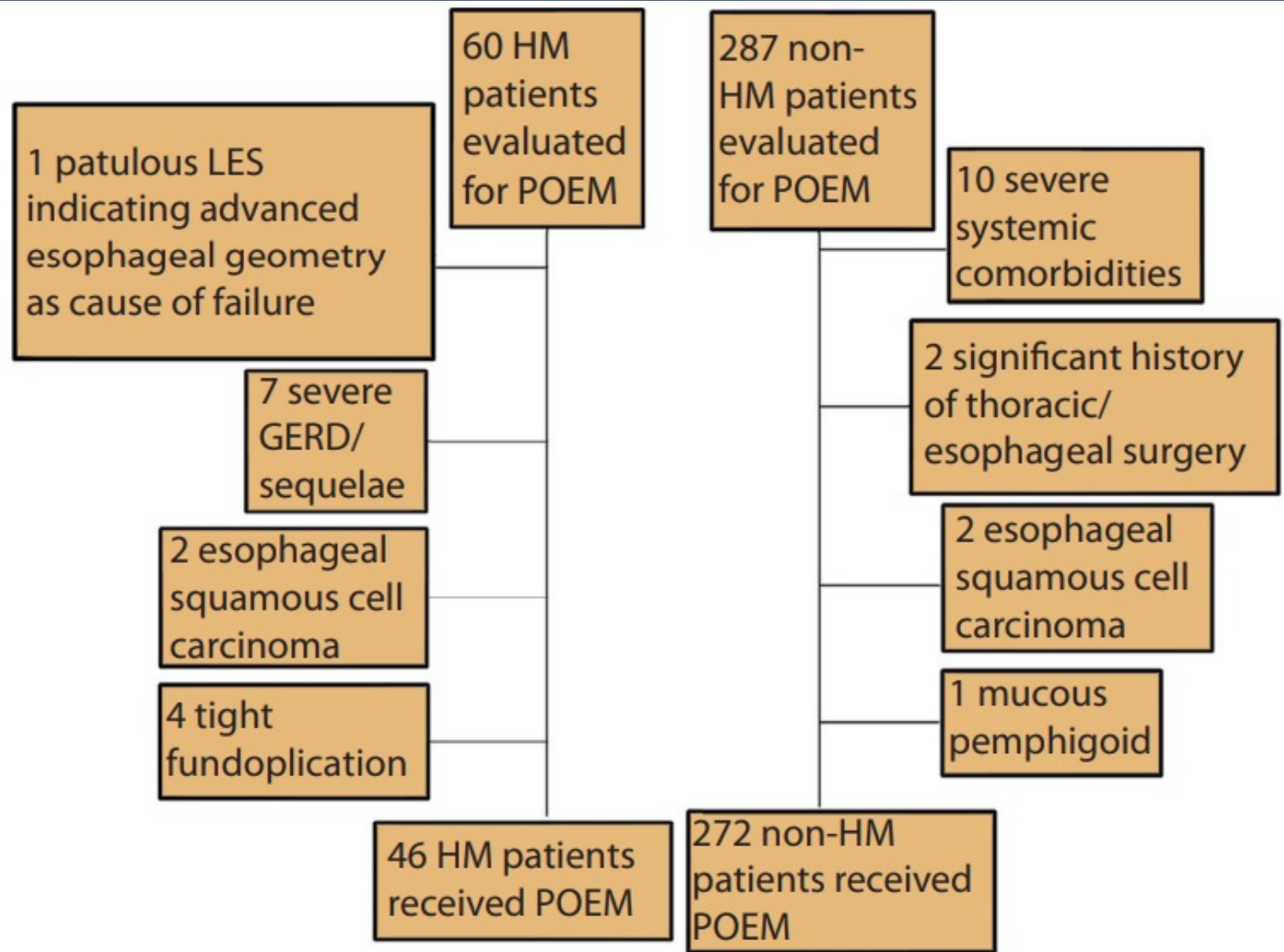


TABLE 2. Clinically significant perioperative adverse events*

Adverse events	HM (N = 46)	Non-HM (N = 272)	P value
Mortality	0	0	NA
Aborted POEM	0	0	NA
Surgical or interventional radiology interventions (including drains)	0	0	NA
Perforations/leaks	0	0	NA
Extraluminal bleeding (including tunnel bleeding)	0	0	NA
Prolonged stay >5 d	0	5 (1.8%)	1.00
Readmission within 30 days related to POEM	0	3† (1.1%)	1.00



TABLE 3. Follow-up results

	HM patients (n = 46)	Non-HM patients (n = 272)	P value
Follow-up time, median [IQR] (range), mo	28 [14, 29] (3-46)	23 [10, 34] (3-78)	.18
Lost to follow-up, no. (%)	0 (0%)	4 (1.5%)	1.00
After-POEM LES pressure, median [IQR] (range), mm Hg	15.6 [12.6, 22.3] (4.7-27.3)	18.4 [13.1, 25.9] (1.2-50)	.12
After-POEM Eckardt score, median [IQR] (range)	1 [0, 1] (0-4)	0 [0, 1] (0-6)	.14
Treatment success (Eckardt score \leq 3), no. (%)	44 (95.7%)	255 (95.1%)	1.00
GERD score*			
0-1	31	182	.73
2-3	15	77	
Reflux esophagitis on EGD, yes/total (%)	12/26 (46.2%)	50/147 (34.0%)	.27
Ambulatory pH test consistent with reflux, yes/total (%)	12/24 (50.0%)	69/144 (47.9%)	1.00

HM, Heller's myotomy; IQR, interquartile range; POEM, per-oral endoscopic myotomy; LES, lower esophageal sphincter.

*GERD score: 0, no reflux symptom (heartburn); 1, occasional (once per week or less); 2, frequent (2-4 times per week); 3, very frequently (>4 times per week).



Back to the Case

Offered:

- endoscopic dilation +/- Botox
- pneumatic dilation
- posterior POEM
- redo Heller myotomy



Back to the Case

Offered:

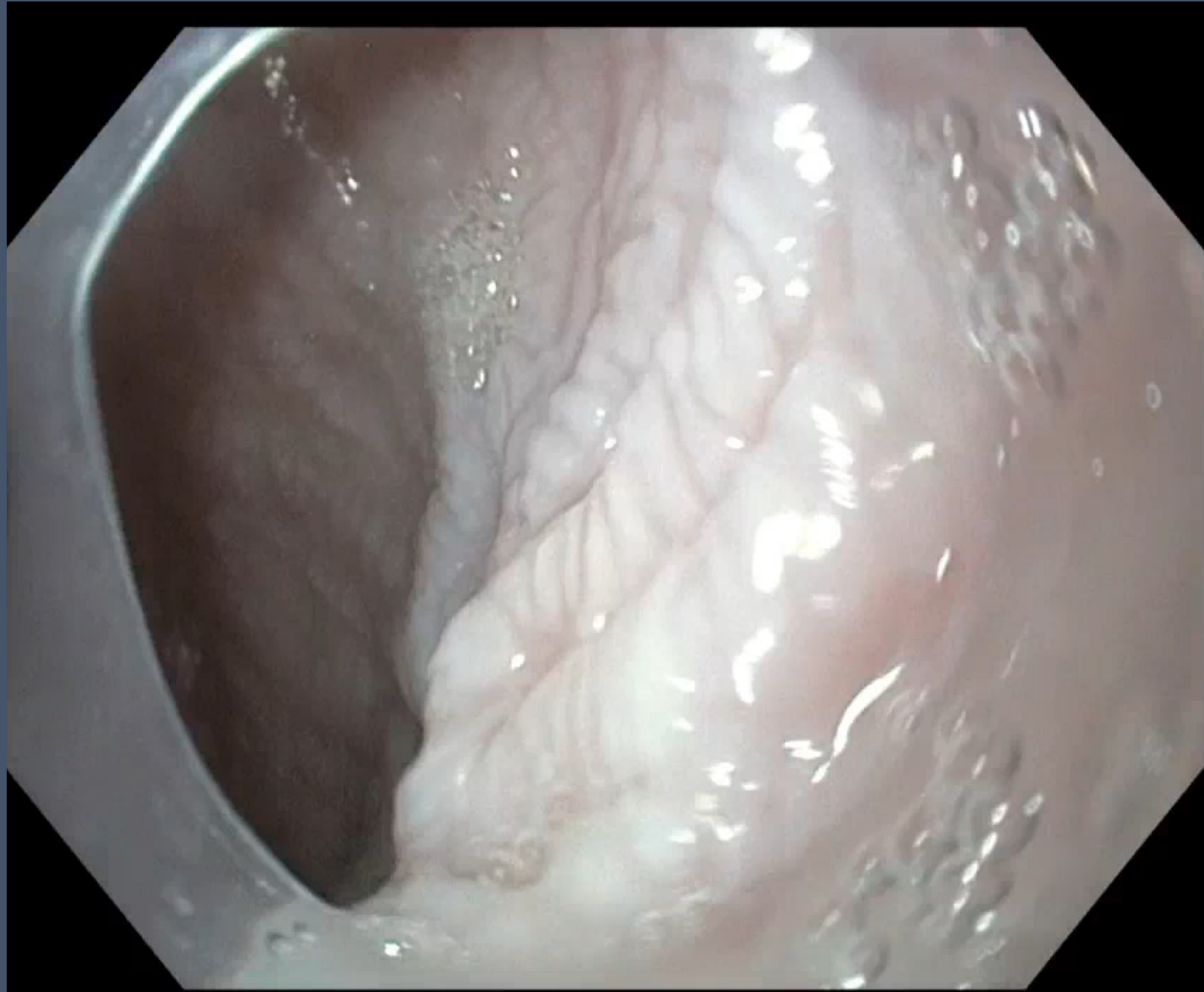
-endoscopic dilation +/- Botox

-pneumatic dilation

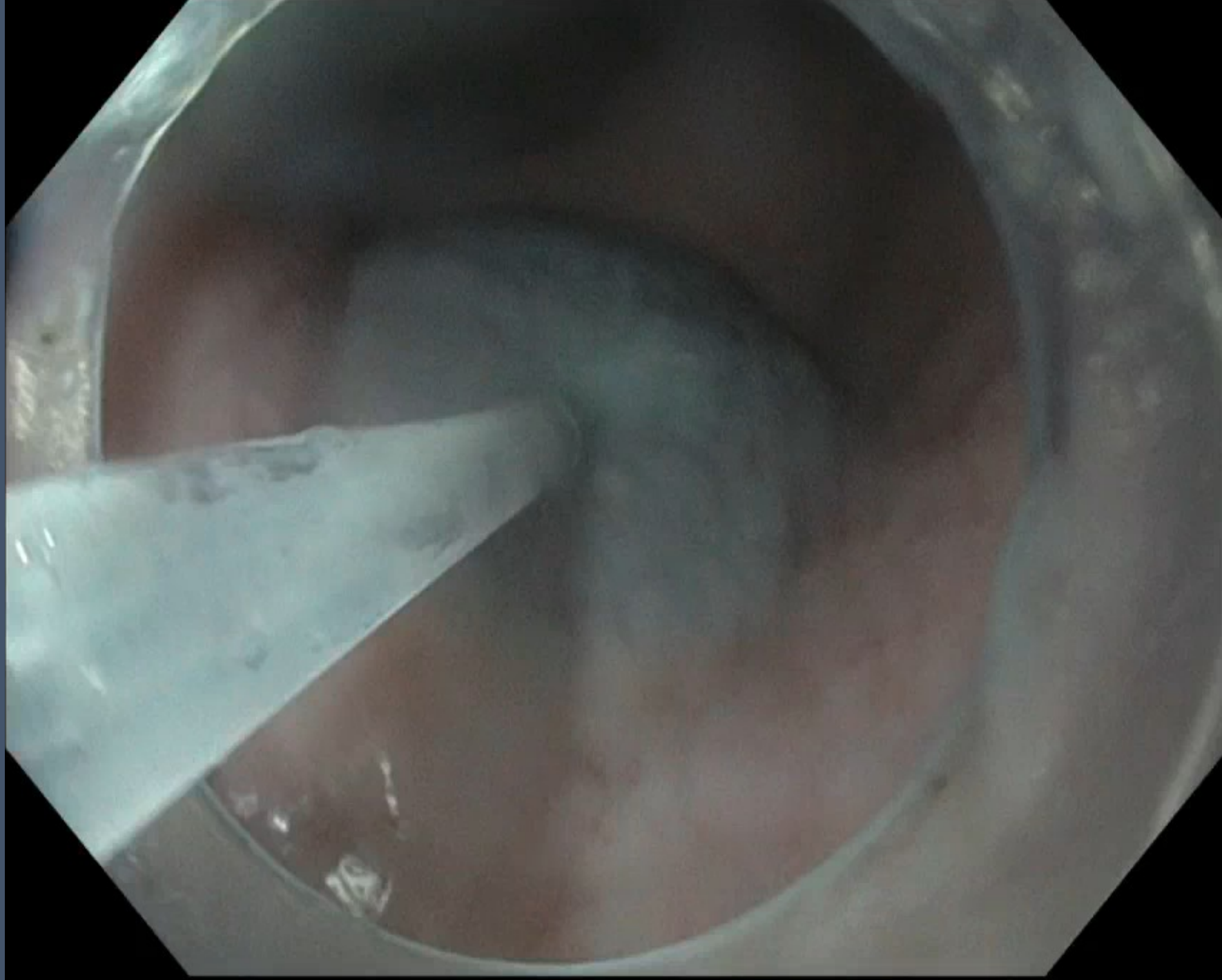
-posterior POEM

-redo Heller myotomy

Pre-POEM
EGD/EndoFLIP

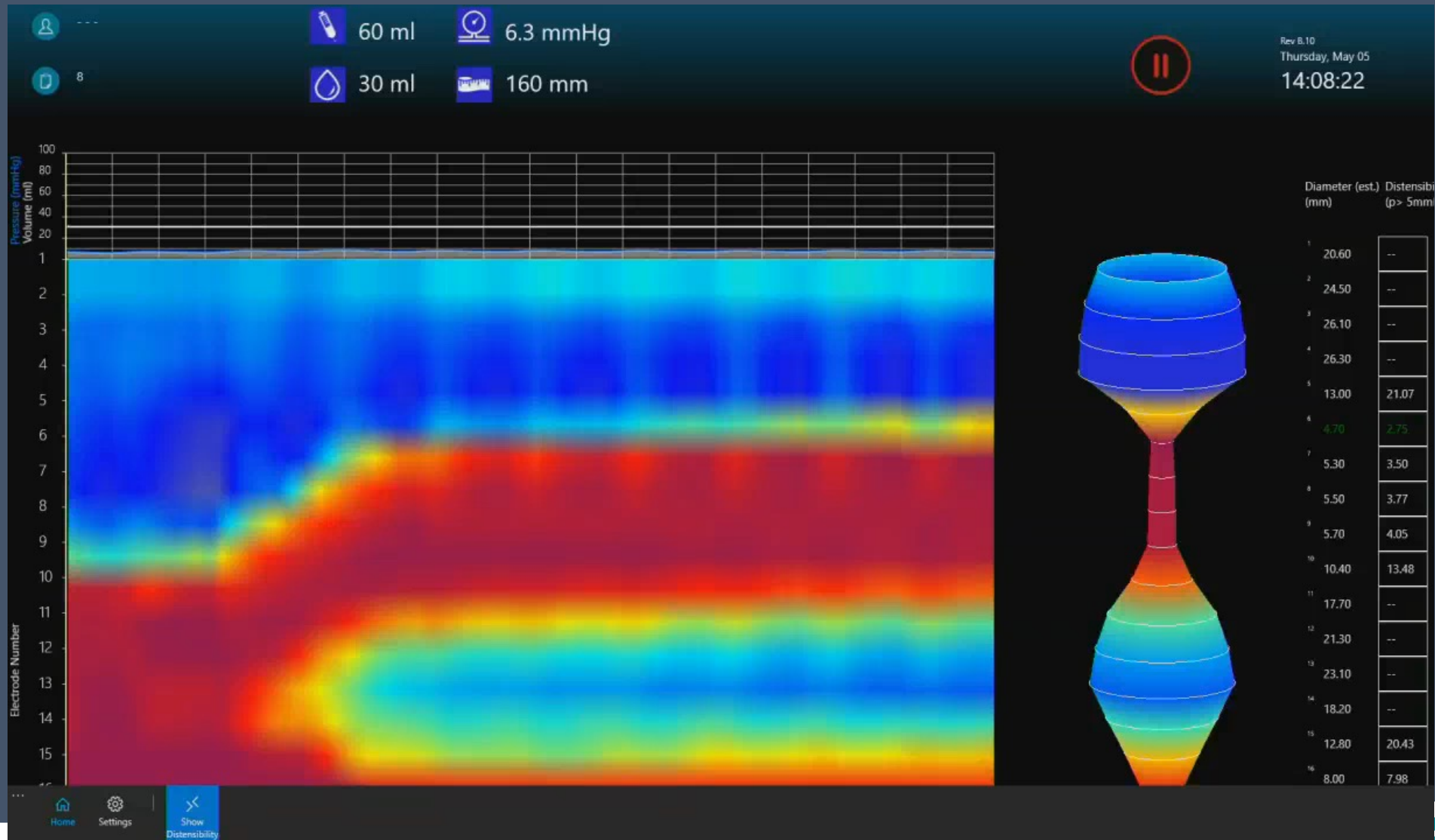


Posterior POEM



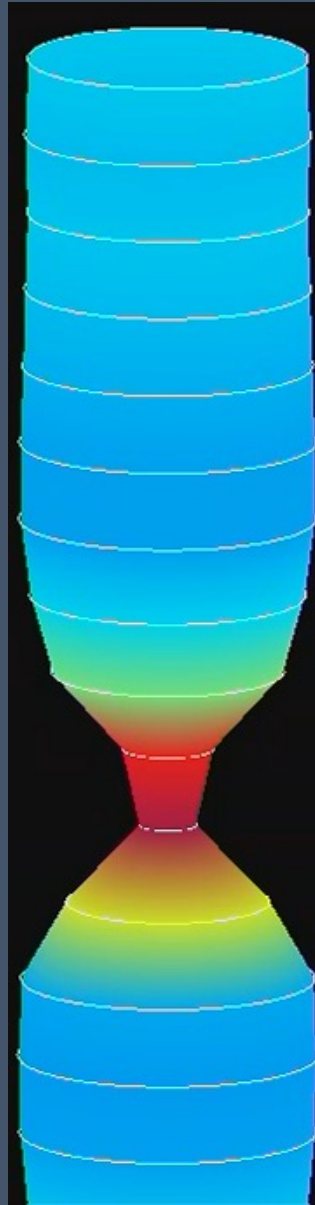
Post-POEM

EndoFLIP



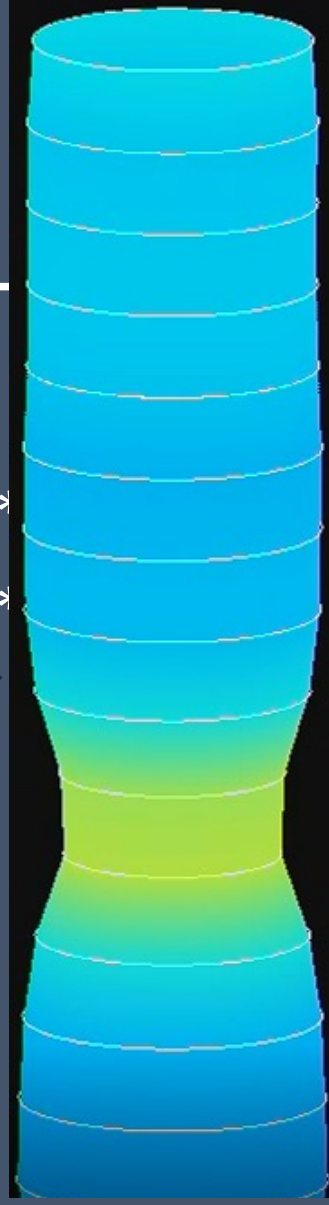
Pre-POEM EndoFLIP

	Diameter
40 cc	4.7
50 cc	4.7
60 cc	6.5



Post-POEM EndoFLIP

	Diameter	DI
40 cc*	3	
50 cc*	4	
60 cc*	5.3	
70 cc	9	



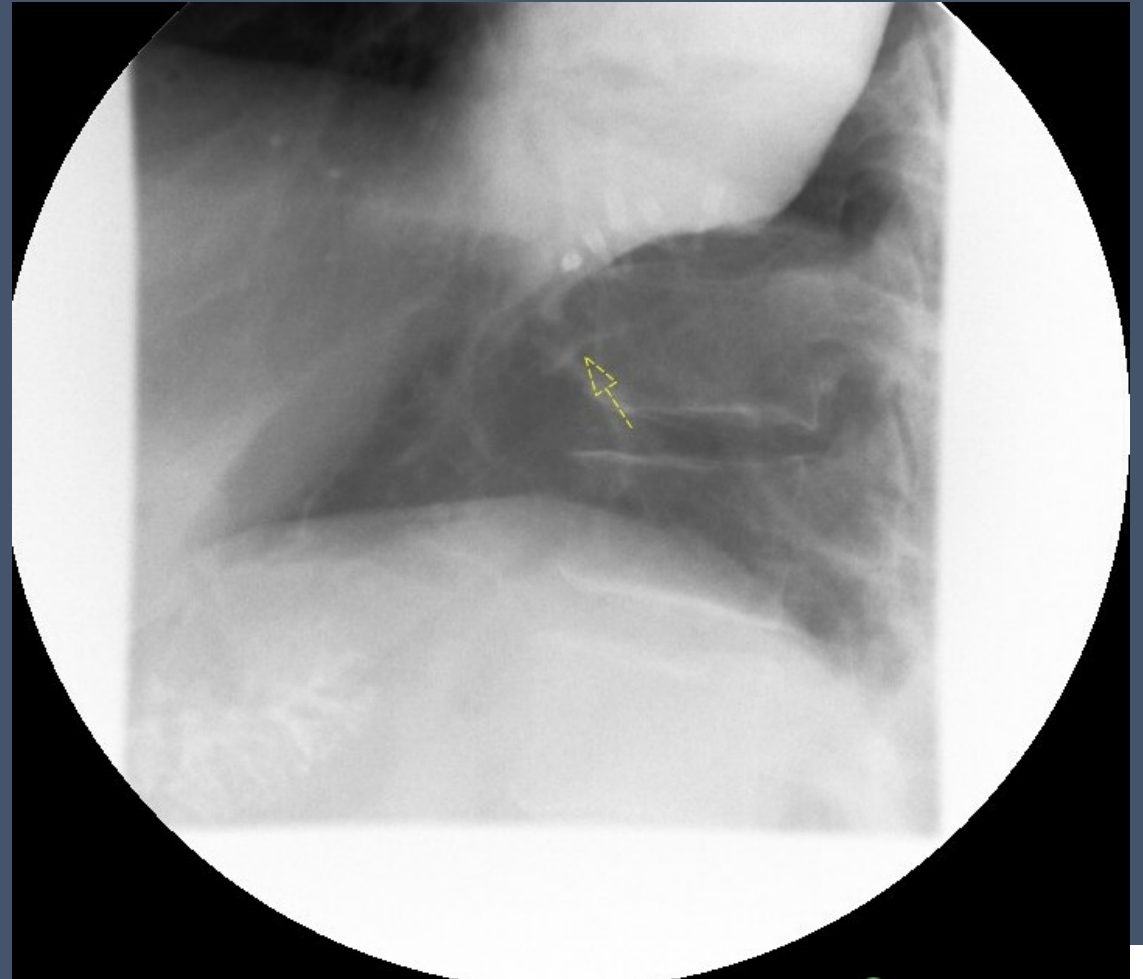
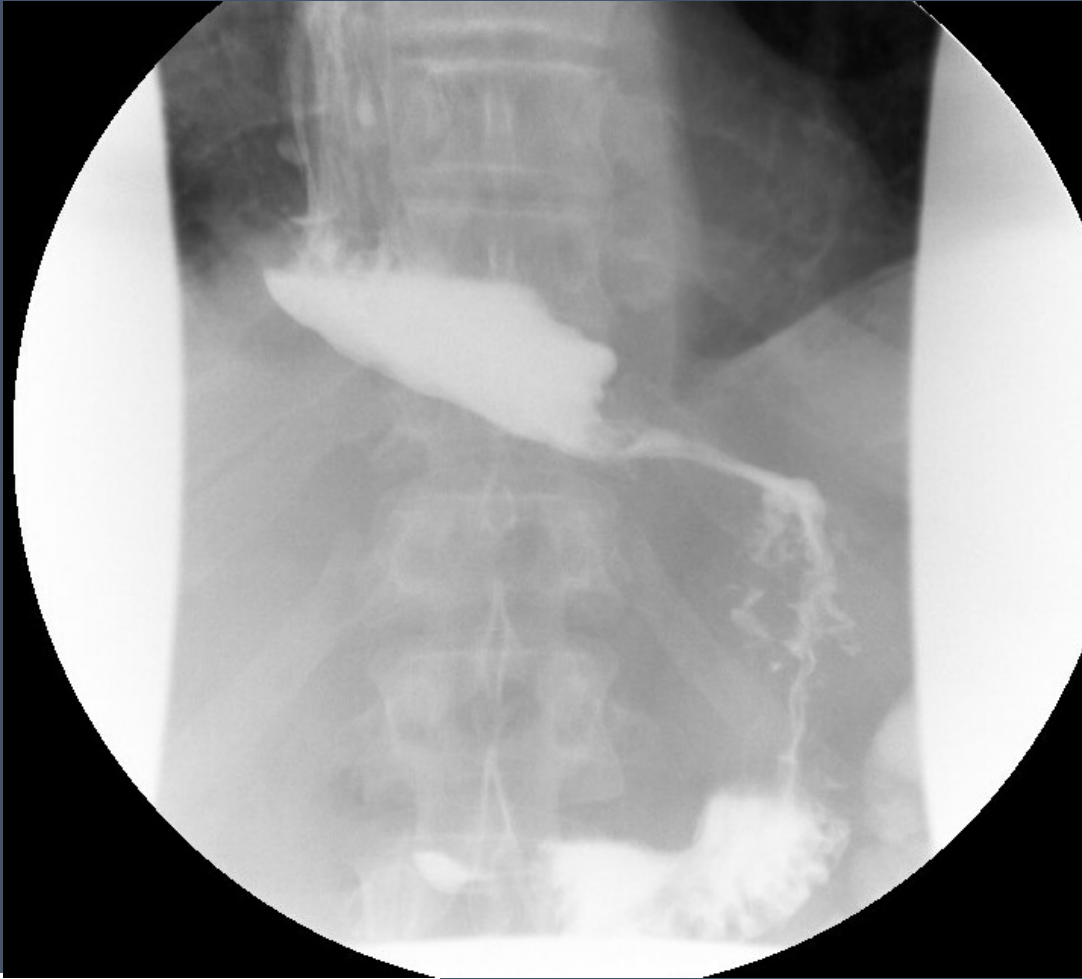
Post op

UGI POD 1



Post op

UGI POD 3



Post op course

- NPO POD 1-3
- Discharge POD 6 on full liquid diet
- Follow up visit Eckardt score: 0
- 1 year follow-up: no recurrent symptoms

4 Take Home Messages

- POEM after Heller is safe and feasible (first-line?)
- Dissection plane will be more difficult
- EndoFLIP helpful in determining extent of myotomy
- Non-operative management of tunnel leak → “OK”

Thank You !

