

Minimally Invasive and Novel Therapeutics (M.I.N.T.) in Foregut Disease  
September 29th -October 1st 2022

# Postoperative dysphagia after Anti-reflux surgery

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# Learning objectives

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1

Define  
postoperative  
dysphagia

2

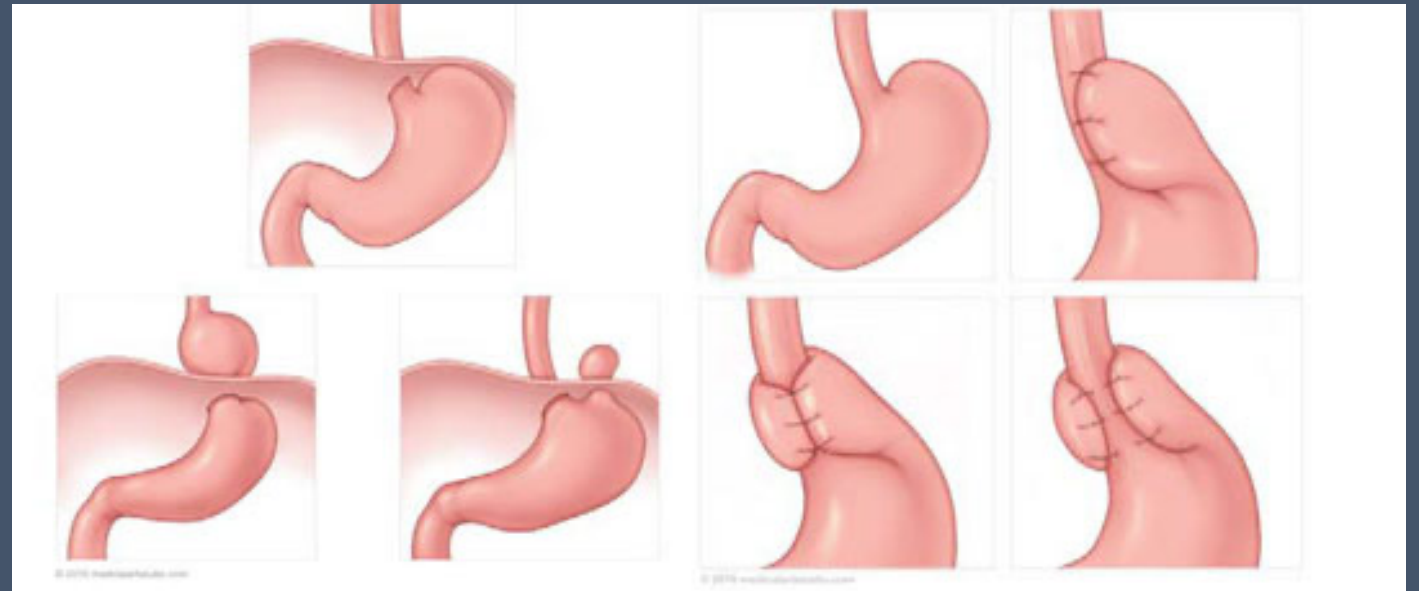
Understand the  
proposed causes of  
postoperative  
dysphagia

3

Outline the workup  
and management  
for postoperative  
dysphagia

# Review of Minimally Invasive Anti-reflux surgery

Laparoscopic / robotic  
Hiatal hernia repair and  
fundoplication



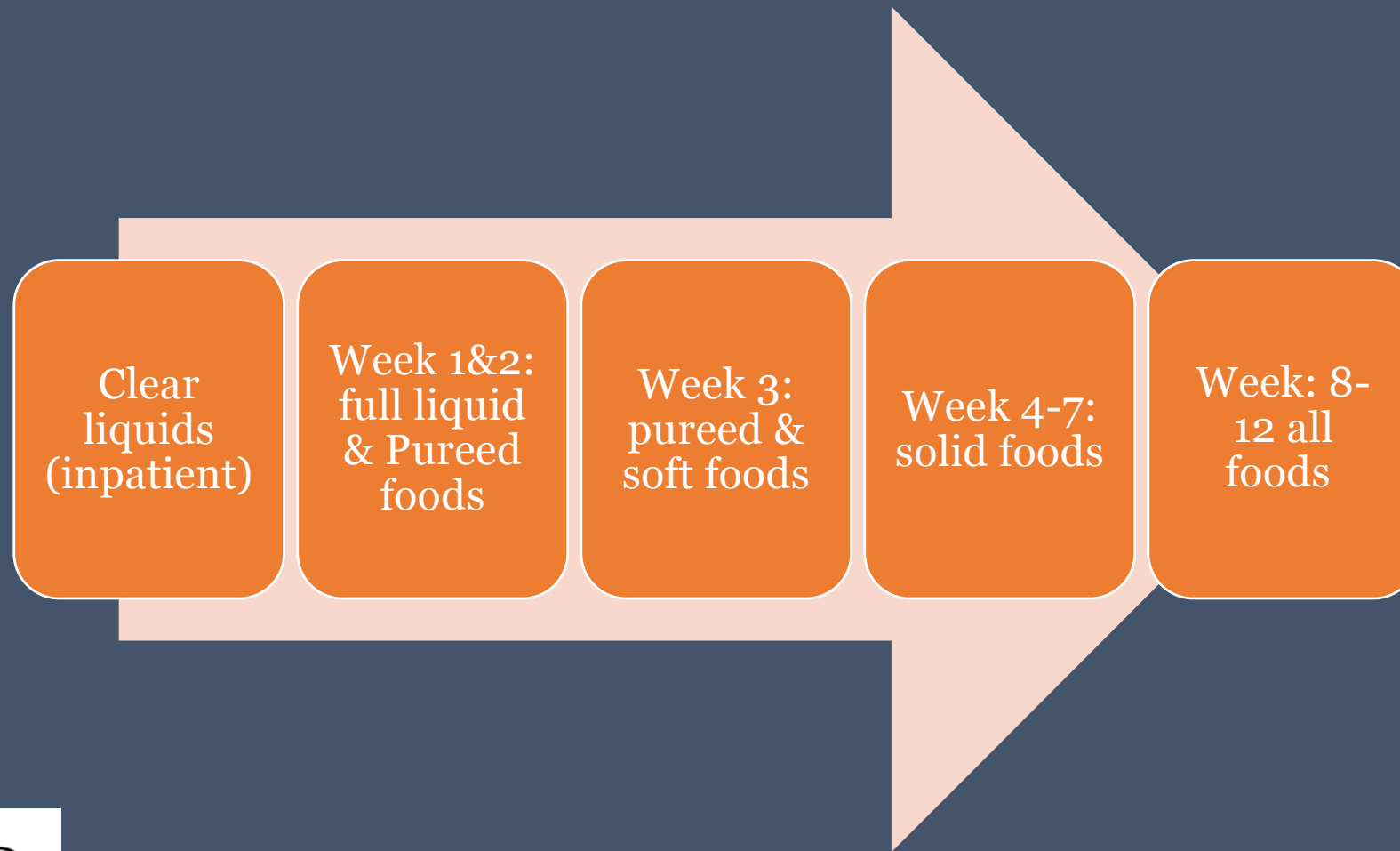
# Patient case

44 y/o female with PMH of T2DM, GERD, and Barrett's esophagus, who underwent robotic hiatal hernia repair and Nissen fundoplication in April 2021 for CC of GERD with symptoms including heartburn, reflux, and regurgitation. No dysphagia preoperatively.

- ❖ Preoperative work up included endoscopy, manometry, & barium swallow.
- ❖ Unremarkable intraoperative & hospital course
- ❖ Initial postoperative follow up visit (3 weeks postop) patient c/o dysphagia to soft foods....



# Postoperative Diet management after ARS





What is  
Esophageal  
dysphagia?

# Esophageal Dysphagia Symptoms



Feeling of liquid or food stuck in esophagus



Chest pain and/or pressure with eating



Regurgitating/ vomiting of food bolus



Food impaction



# Defining post-fundoplication dysphagia

## Transient (early) dysphagia

- Before 6 weeks post op
- 40-70% of patients s/p ARS
- Resolves within 1-3 months postoperatively

Late dysphagia

Persistent  
Dysphagia





# Proposed causes of post-fundoplication Dysphagia

- Hiatal stenosis secondary to severe fibrotic reaction
- Anterior angulation of the GEJ
- Fundoplication too tight
- Prolonged/difficult surgery
- Recurrent Hiatal Hernia
- Edema at the GEJ (transient/early dysphagia)

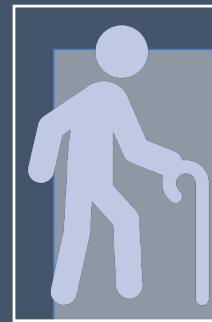


# Risk factors for developing post-fundoplication dysphagia



Pre-fundoplication dysphagia or dysmotility on HRM

**Esophageal hypomotility disorders without contraction reserve\***



Age >60 higher risk of clinically significant dysphagia (Walle et al)



AGE, SEX, BMI, primary vs redo operation, Nissen vs Partial fundoplication

NOT shown to be significant predictors of *persistent* postoperative dysphagia



# Patient case

44 year old female with PMH of T2DM, GERD, and Barrett's esophagus, who underwent robotic hiatal hernia repair and Nissen fundoplication in April 2021 for CC of GERD with symptoms including heartburn, reflux, and regurgitation. Patient complains of dysphagia during routine POV, 3 weeks after surgery

Scenario 1: NO red flag symptoms

Likely transient dysphagia  
Conservative management



# Diet modifications for Dysphagia



## Diet trouble shooting

Create a diet  
guide for  
patients

Use timer on  
phone in  
between bites

Chew very well  
before  
swallowing

4-6 Small,  
frequent meals  
per day

Stay upright for  
1 hour after  
eating

Each patient  
advances at a  
difference rate

# Patient case

44 year old female with PMH of T2DM, GERD, and Barrett's esophagus, who underwent robotic hiatal hernia repair and Nissen fundoplication in April 2021 for CC of GERD with symptoms including heartburn, reflux, and regurgitation. Patient complains of dysphagia during routine POV, 3 weeks after surgery

Scenario 1: NO red flag symptoms

Likely transient dysphagia  
Conservative management

Scenario 2: Red flag symptoms

Clinically significant or severe dysphagia, consider further workup



> Clin Gastroenterol Hepatol. 2019 Sep;17(10):1982-1990. doi: 10.1016/j.cgh.2018.10.020.  
Epub 2018 Oct 17.

## Clinical Characteristics and Outcomes of Patients With Postfundoplication Dysphagia

Stephen Hasak<sup>1</sup>, L Michael Brunt<sup>2</sup>, Dan Wang<sup>1</sup>, C Prakash Gyawali<sup>3</sup>

Affiliations + expand

PMID: 30342262 DOI: 10.1016/j.cgh.2018.10.020

- ❖ 157 patients undergoing elective laparoscopic fundoplication
- ❖ 54.8% had early post fundoplication dysphagia
  - ❖ Of these patients, 20.4% had clinically significant dysphagia
    - ❖ Only 3.5% required endoscopic intervention

# Managing transient dysphagia

- Reassurance & close follow up
- Diet changes
- Medication: PPI/H2 blocker
- Endoscopic evaluation: reserve for clinically significant dysphagia
- Most postoperative dysphagia resolves  
→ Treat conservatively for the first 1-3 months



# Late dysphagia & persistent dysphagia



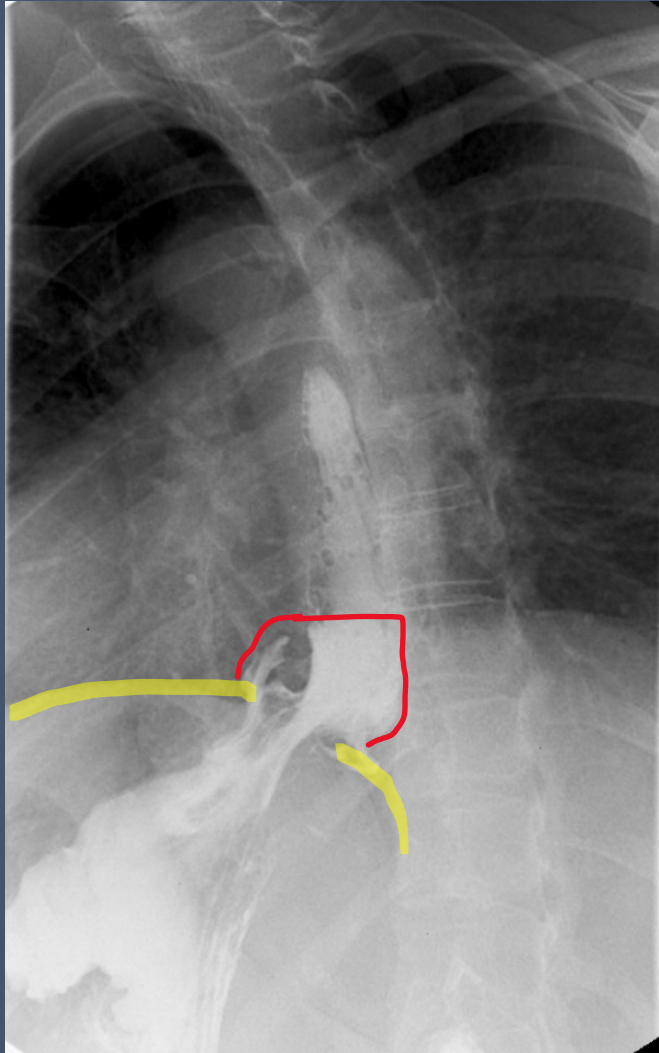
# Patient case

50 year-old female with PMH of Hashimoto's thyroiditis and GERD, who underwent laparoscopic hiatal hernia repair and Nissen fundoplication in May 2021 for CC of GERD

- ❖ Six months postoperatively patient presents to clinic with complaints of persistent dysphagia to solids and return of reflux symptoms.
- ❖ She resumes PPI therapy and meets with the dietitian...



# Patient case wrap up



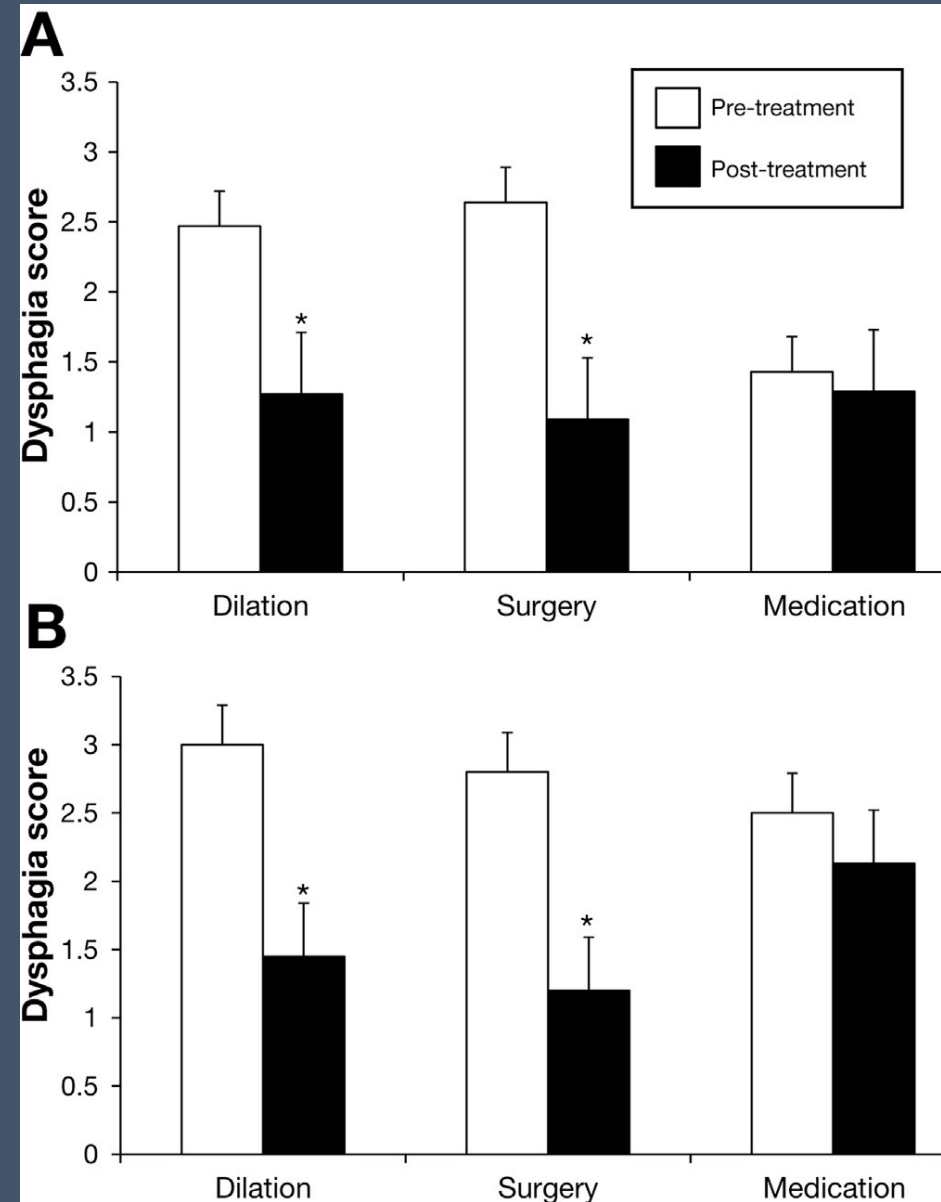
- ❖ EGD shows a small recurrent hernia
- ❖ Barium swallow shows a slipped fundoplication
- ❖ Patient undergoes redo surgery in June 2022
  - ❖ Intra-op findings: Recurrent hiatal hernia w/ intact fundoplication that was sliding into the chest
  - ❖ Post op: resolution of symptoms

# Workup and Management of late or persistent PD



- Dietary modifications
- Medications
- Barium swallow
- Endoscopy & dilation
  - For persistent post fundoplication dysphagia & clinically significant late PD
- Surgical revision
  - Recurrent HH / wrap dysfunction
- Multidisciplinary team

# Change in late post-fundoplication dysphagia scores by management strategy



“Endoscopic dilation, primarily performed with balloon dilators, typically to a maximum of 20 mm, improved symptoms (mean decrease in dysphagia score:  $1.55 \pm 0.3$ ) in 92.3% of patients with persistent late dysphagia”



# Key points



- Post-fundoplication dysphagia is a bothersome symptom for patients
- HRM should be performed in all patients prior to ARS
- Majority of patients will experience some degree of Post-fundoplication Dysphagia
  - Majority is transient and will resolve with conservative management
- Clinically significant dysphagia or persistent dysphagia
  - Barium swallow & EGD

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