



JOHNS HOPKINS
M E D I C I N E

Solid Food Dysphagia: A Hard Diagnosis to Swallow

Mid-Atlantic Laryngology Symposium Voice Conference

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Disclosures

- Relevant Financial Disclosures
 - None
- Non-FDA Approved Uses
 - None

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Learning Objectives:

- Describe clinical approaches for dysphagia
- Identify the etiology of dysphagia
- Outline management options for dysphagia

Definitions

OED | Oxford English Dictionary

1783-

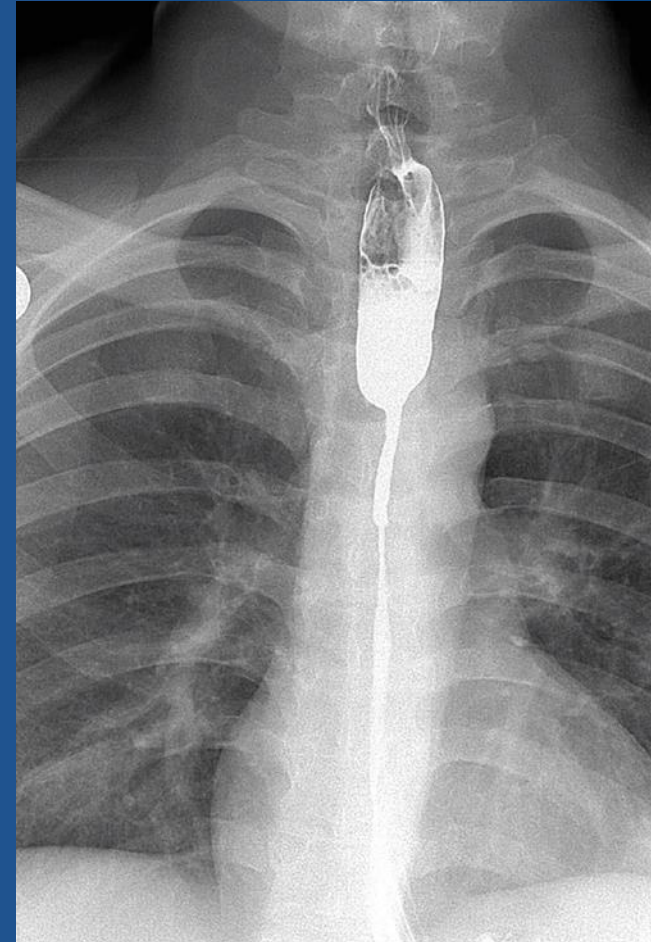


dysphagia, n.

Difficulty of swallowing (as a symptom of some disease or affection).

Definition

- Difficulty initiating swallowing
- Food/drink sticking
- Choking
- Coughing
- Regurgitation



Definitions

DYSPHAGIA \neq **ODYNOPHAGIA**
GLOBUS SENSATION

ODYNOPHAGIA	Pain with swallowing
GLOBUS SENSATION	A nonpainful sensation of a lump, tightness, or foreign body in the pharyngeal or cervical area

Common Causes of Solid Food Dysphagia

THE


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BIG 3

Monica

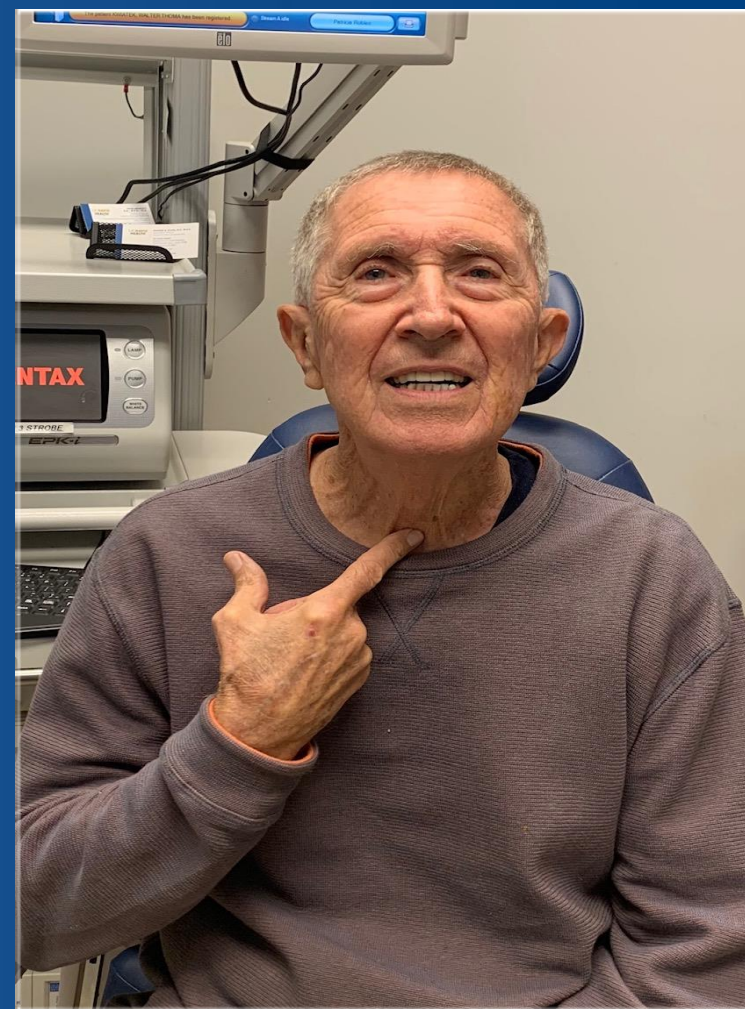
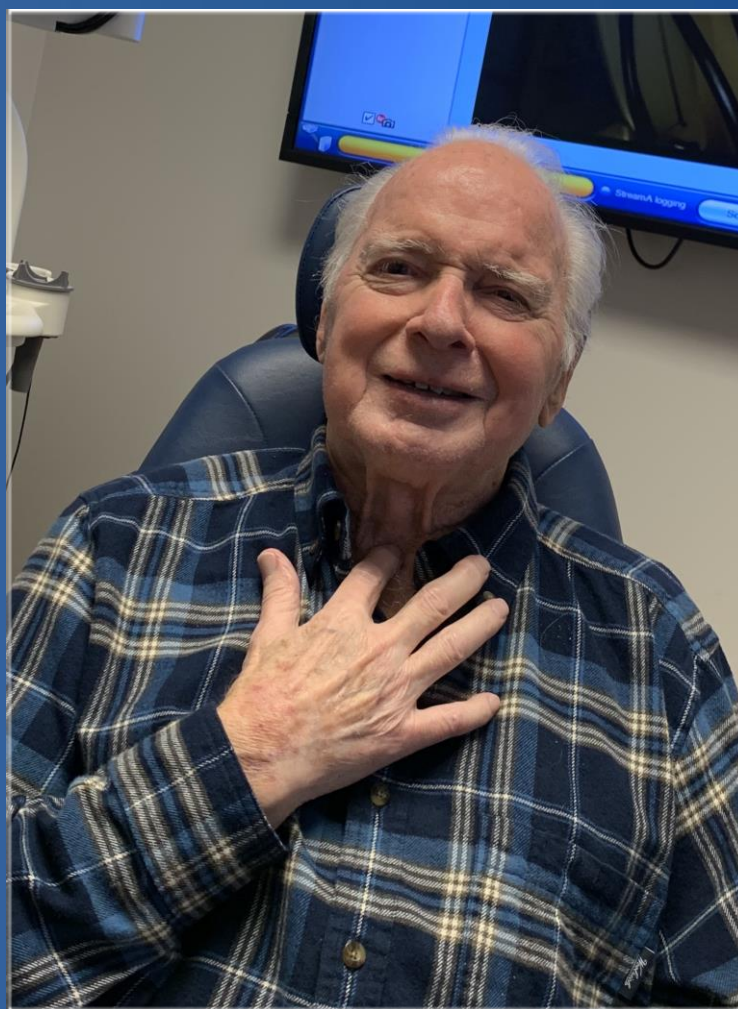
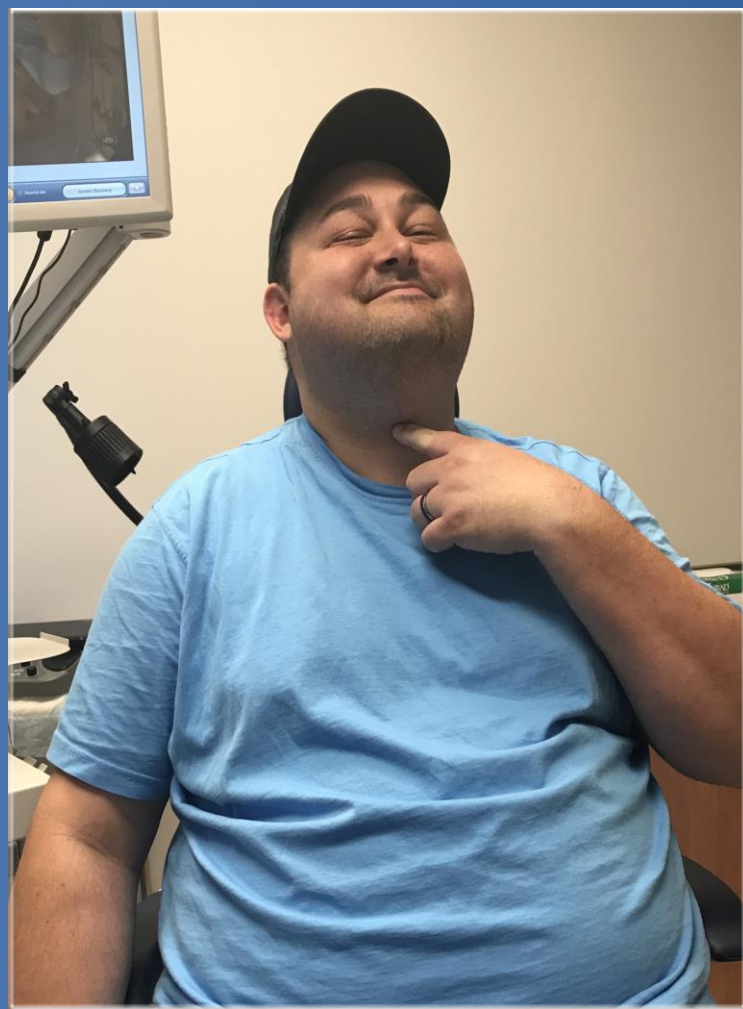
ary-Care Swallowing Center

omer, MS; Emily K. Plowman, PhD;
, Peter Belafsky, MD, PhD



12% XRT

Meet Tom, Dick, and Harry



Tom



38 yo male presenting with
intermittent solid food dysphagia for
the last year

PMHx GERD
EAT10 – 25

FEES and an MBS with speech both
reported normal

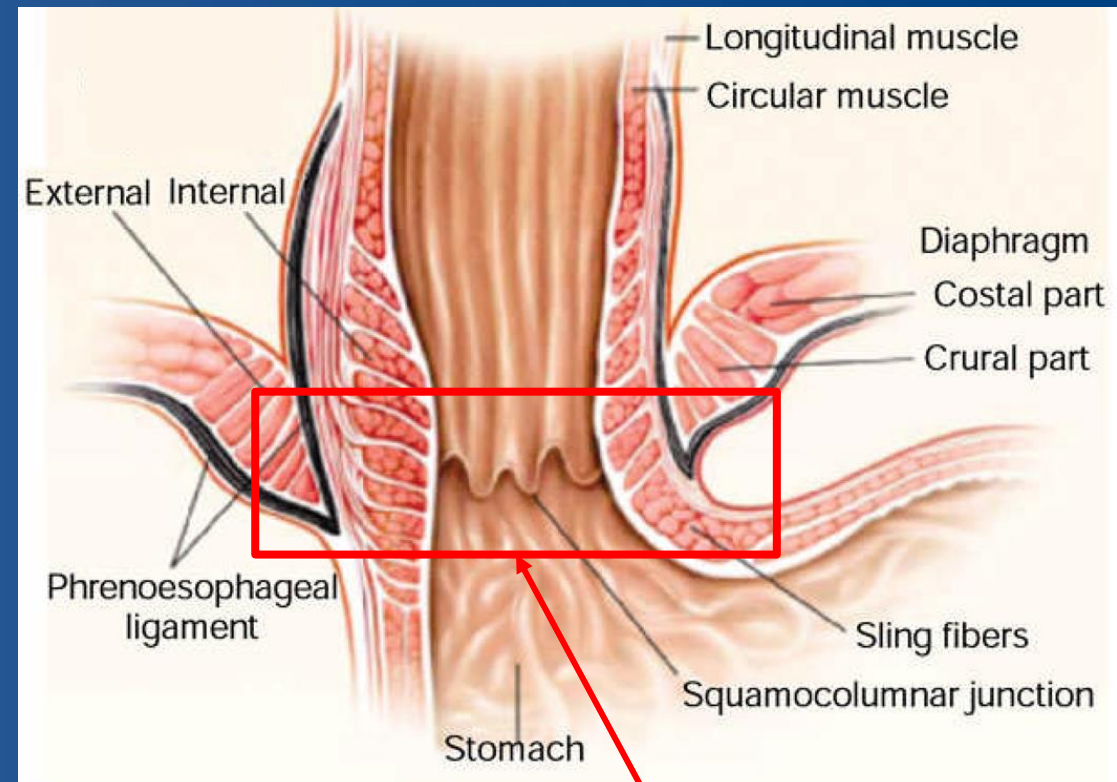
Gastroesophageal Reflux Disease

- GERD is broadly considered to arise from the retrograde flow of stomach contents, eliciting symptomatic epigastric discomfort
 - Etiologies include incompetent lower esophageal sphincter
 - Over time, can lead to pathologic remodeling of the distal esophageal tissue
- Between 18 - 28 percent of North Americans endorse experiencing symptoms at least weekly

Gastroesophageal Reflux Disease

Primarily a disorder of the lower esophageal sphincter

- Transient lower esophageal sphincter relaxations
- Reduced lower esophageal sphincter pressure
- Hiatal hernias
- Impaired esophageal clearance
- Delayed gastric emptying



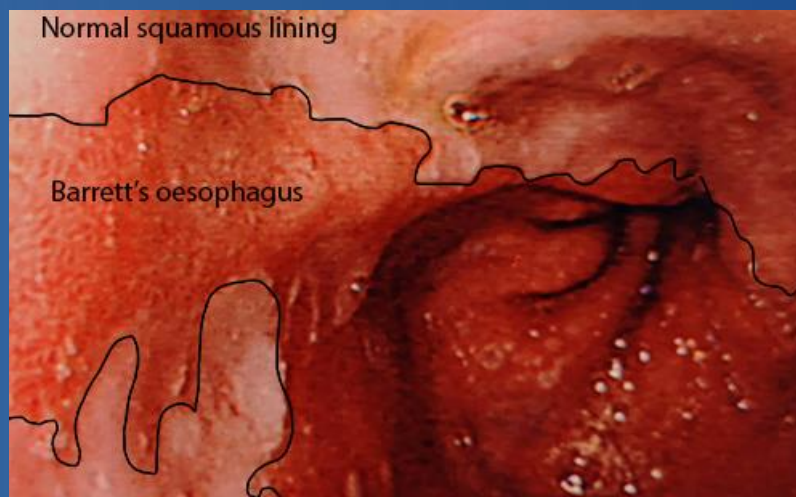
Muscular ring at the junction of the esophagus and stomach

Gastroesophageal Reflux Disease

Several serious complications



Reflux Esophagitis



Barrett's Esophagus

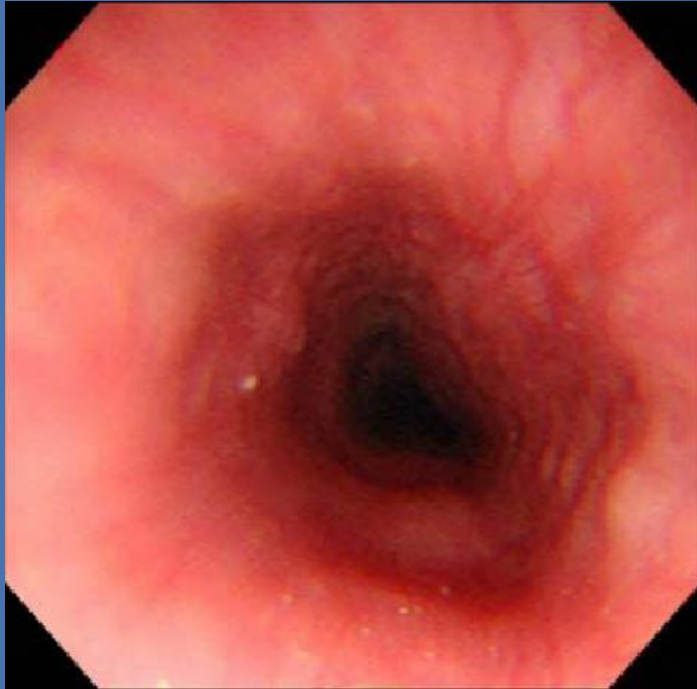


Esophageal Adenocarcinoma

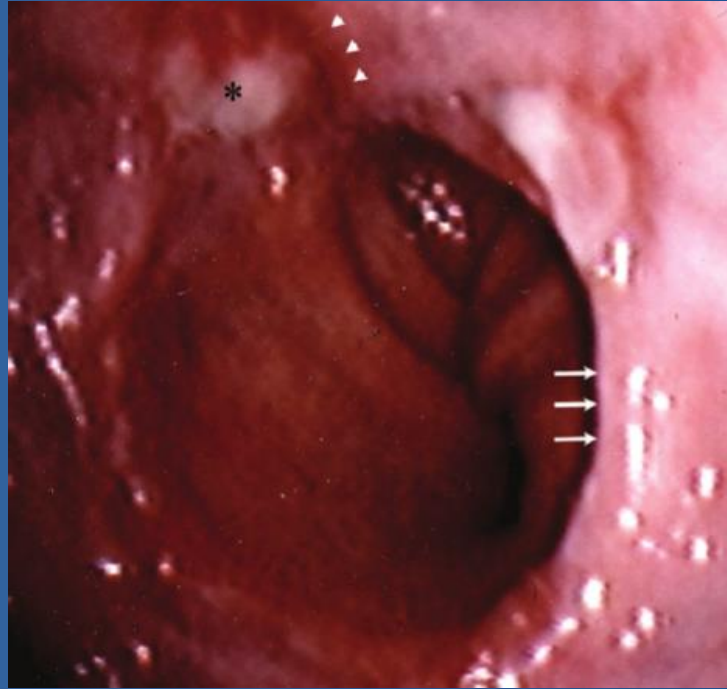
Diagnosis of GERD-Associated Dysphagia

1. For patients with classic GERD symptoms of heartburn and regurgitation who have no alarm symptoms, we recommend an 8-week trial of empiric PPIs once daily before a meal (strong recommendation, moderate level of evidence).
2. We recommend attempting to discontinue the PPIs in patients whose classic GERD symptoms respond to an 8-week empiric trial of PPIs (conditional recommendation, low level of evidence).
- A** 3. We recommend diagnostic endoscopy, ideally after PPIs are stopped for 2–4 weeks, in patients whose classic GERD symptoms do not respond adequately to an 8-week empiric trial of PPIs or whose symptoms return when PPIs are discontinued (strong recommendation, low level of evidence).
- CU** 4. In patients who have chest pain without heartburn and who have had adequate evaluation to exclude heart disease, objective testing for GERD (endoscopy and/or reflux monitoring) is recommended (conditional recommendation, low level of evidence).
- A** 5. We do not recommend the use of a barium swallow solely as a diagnostic test for GERD (conditional recommendation, low level of evidence).
- G** 6. We recommend endoscopy as the first test for evaluation of patients presenting with dysphagia or other alarm symptoms (weight loss and GI bleeding) and for patients with multiple risk factors for Barrett's esophagus (strong recommendation, low level of evidence).
- Kat MD** 7. In patients for whom the diagnosis of GERD is suspected but not clear, and endoscopy shows no objective evidence of GERD, we recommend reflux monitoring be performed off therapy to establish the diagnosis (strong recommendation, low level of evidence).
- Aur** 8. We recommend against performing reflux monitoring off therapy solely as a diagnostic test for GERD in patients known to have endoscopic evidence of Los Angeles (LA) grade C or D reflux esophagitis or in patients with long-segment Barrett's esophagus (strong recommendation, low level of evidence).
- Th** **Cl**

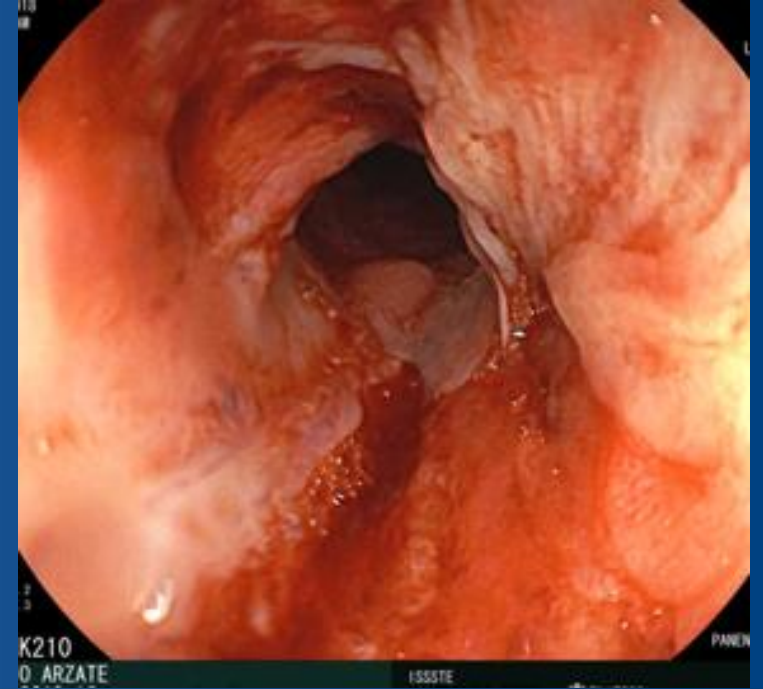
Diagnosis of GERD-Associated Dysphagia



Esophagitis



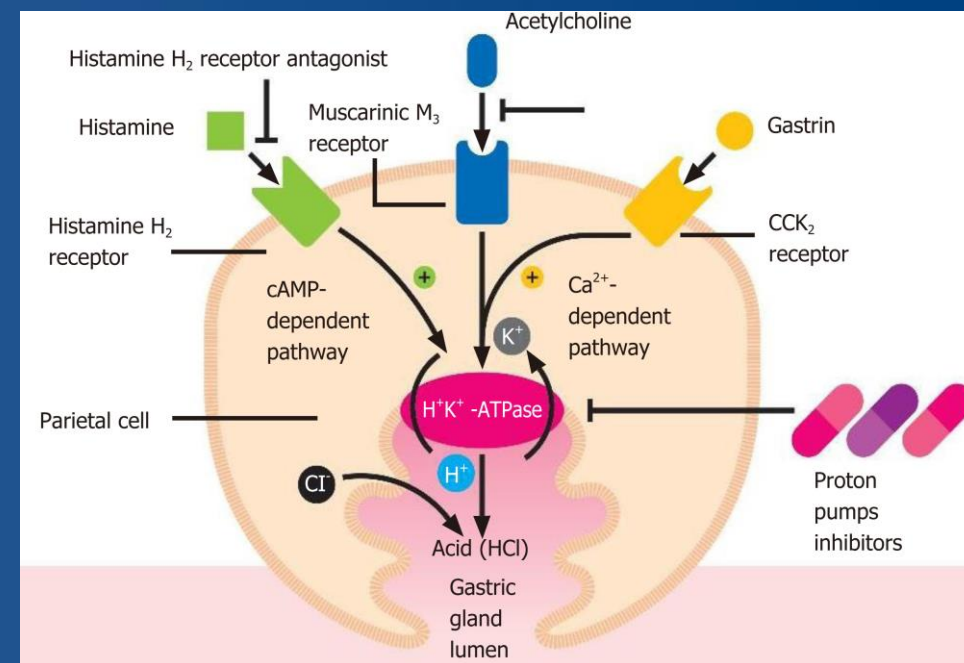
Schatzki Ring



Peptic Stricture

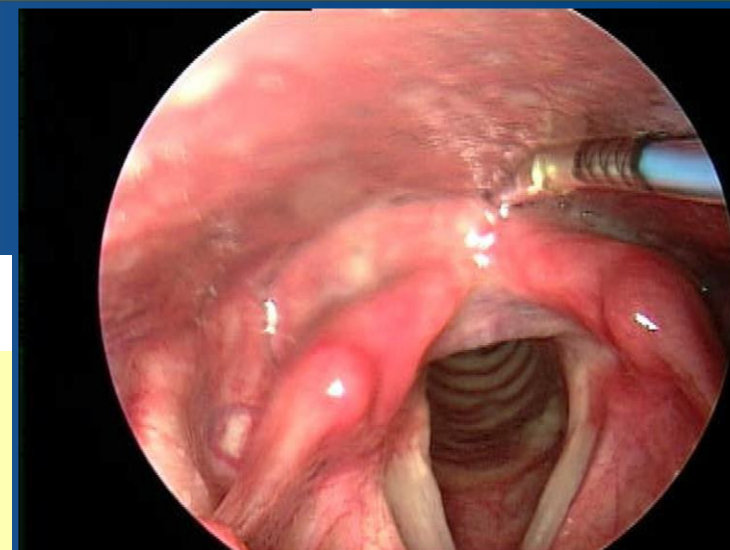
Management of GERD-Associated Dysphagia

1. We recommend weight loss in overweight and obese patients for improvement of GERD symptoms (strong recommendation, moderate level of evidence).
2. We suggest avoiding meals within 2–3 hours of bedtime (conditional recommendation, low level of evidence).
3. We suggest avoidance of tobacco products/smoking in patients with GERD symptoms (conditional recommendation, low level of evidence).
4. We suggest avoidance of “trigger foods” for GERD symptom control (conditional recommendation, low level of evidence).
5. We suggest elevating head of bed for nighttime GERD symptoms (conditional recommendation, low level of evidence).
6. We recommend treatment with PPIs over treatment with histamine-2-receptor antagonists (H2RA) for healing EE (strong recommendation, high level of evidence).
7. We recommend treatment with PPIs over H2RA for maintenance of healing from EE (strong recommendation, moderate level of evidence).
8. We recommend PPI administration 30–60 minutes before a meal rather than at bedtime for GERD symptom control (strong recommendation, moderate level of evidence).
9. For patients with GERD who do not have EE or Barrett’s esophagus, and whose symptoms have resolved with PPI therapy, an attempt should be made to discontinue PPIs or to switch to on-demand therapy in which PPIs are taken only when symptoms occur and discontinued when they are relieved (conditional recommendation, low level of evidence).
10. For patients with GERD who require maintenance therapy with PPIs, the PPIs should be administered in the lowest dose that effectively controls GERD symptoms and maintains healing of reflux esophagitis (conditional recommendation, low level of evidence).
11. We recommend against routine addition of medical therapies in PPI nonresponders (conditional recommendation, moderate level of evidence).
12. We recommend maintenance PPI therapy indefinitely or antireflux surgery for patients with LA grade C or D esophagitis (strong recommendation, moderate level of evidence).
13. We do not recommend baclofen in the absence of objective evidence of GERD (strong recommendation, moderate level of evidence).
14. We recommend against treatment with a prokinetic agent of any kind for GERD therapy unless there is objective evidence of gastroparesis (strong recommendation, low level of evidence).
15. We do not recommend sucralfate for GERD therapy except during pregnancy (strong recommendation, low level of evidence).
16. We suggest on-demand or intermittent PPI therapy for heartburn symptom control in patients with NERD (conditional recommendation, low level of evidence).

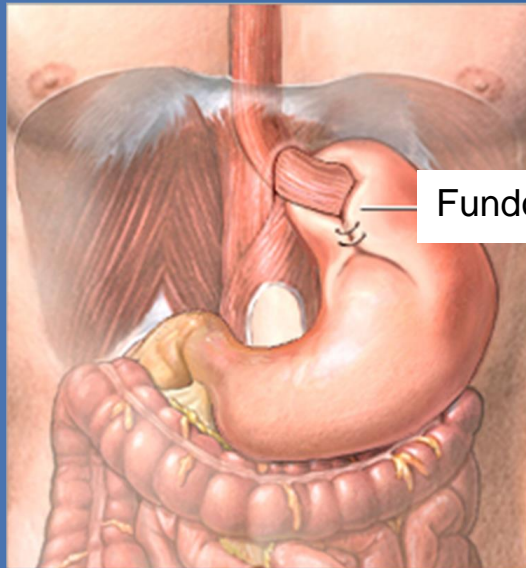


Management of GERD-Associated Dysphagia

1. We recommend optimization of PPI therapy as the first step in management of refractory GERD (strong recommendation, moderate level of evidence).
2. We suggest esophageal pH monitoring (Bravo, catheter-based, or combined impedance-pH monitoring) performed OFF PPIs if the diagnosis of GERD has not been established by a previous pH monitoring study or an endoscopy showing long-segment Barrett's esophagus or severe reflux esophagitis (LA grade C or D) (conditional recommendation, low level of evidence).
3. We suggest esophageal impedance-pH monitoring performed ON PPIs for patients with an established diagnosis of GERD whose symptoms have not responded adequately to twice-daily PPI therapy (conditional recommendation, low level of evidence).
4. For patients who have regurgitation as their primary PPI-refractory symptom and who have had abnormal gastroesophageal reflux documented by objective testing, we suggest consideration of antireflux surgery or TIF (conditional recommendation, low level of evidence).



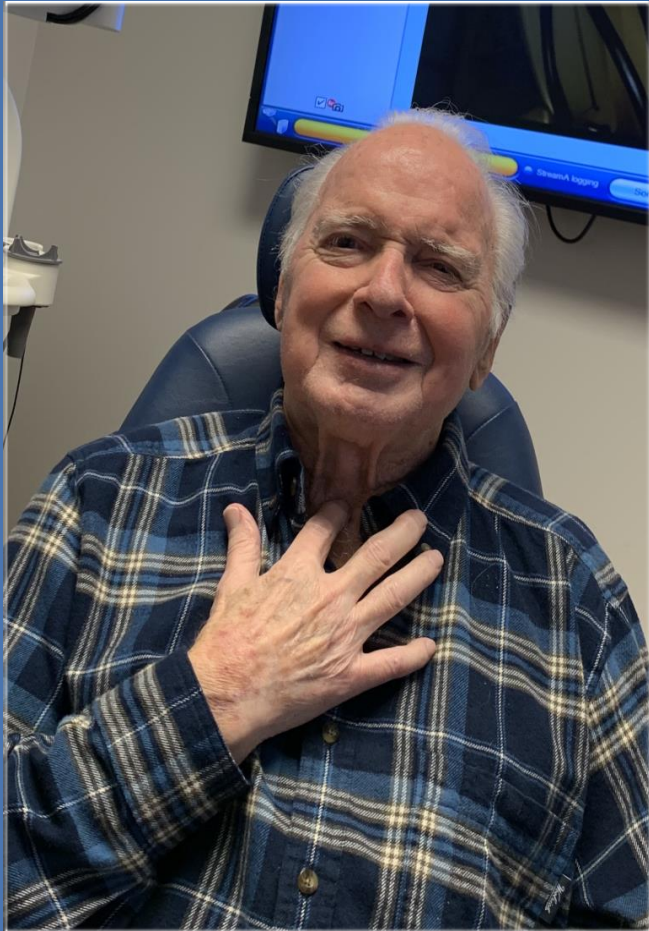
Management of GERD-Associated Dysphagia



Fundoplication

1. We recommend antireflux surgery performed by an experienced surgeon as an option for long-term treatment of patients with objective evidence of GERD, especially those who have severe reflux esophagitis (LA grade C or D), large hiatal hernias, and/or persistent, troublesome GERD symptoms (strong recommendation, moderate level of evidence).
2. We recommend consideration of MSA as an alternative to laparoscopic fundoplication for patients with regurgitation who fail medical management (strong recommendation, moderate level of evidence).
3. We suggest consideration of Roux-en-Y gastric bypass (RYGB) as an option to treat GERD in obese patients who are candidates for this procedure and who are willing to accept its risks and requirements for lifestyle alterations (conditional recommendation, low level of evidence).
4. Because data on the efficacy of radiofrequency energy (Stretta) as an antireflux procedure is inconsistent and highly variable, we cannot recommend its use as an alternative to medical or surgical antireflux therapies (conditional recommendation, low level of evidence).
5. We suggest consideration of TIF for patients with troublesome regurgitation or heartburn who do not wish to undergo antireflux surgery and who do not have severe reflux esophagitis (LA grade C or D) or hiatal hernias >2 cm (conditional recommendation, low level of evidence).

Richard (Dick)



77 yo male with solid food dysphagia
and globules sensation for the last six
months

PMHx GERD

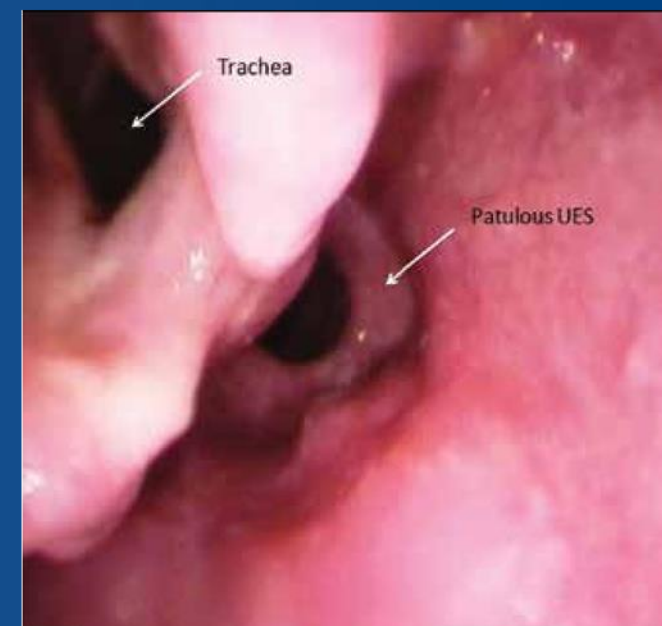
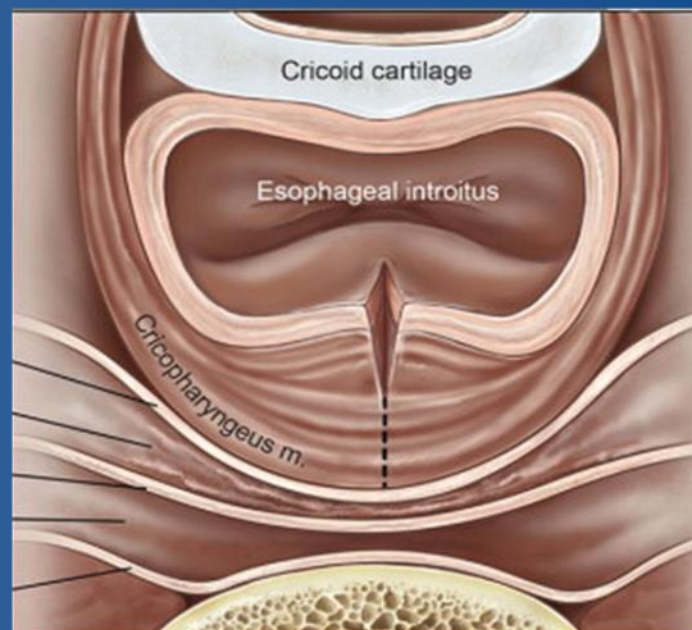
EAT10 – 23

Normal EGD

Cricopharyngeal Muscle Dysfunction

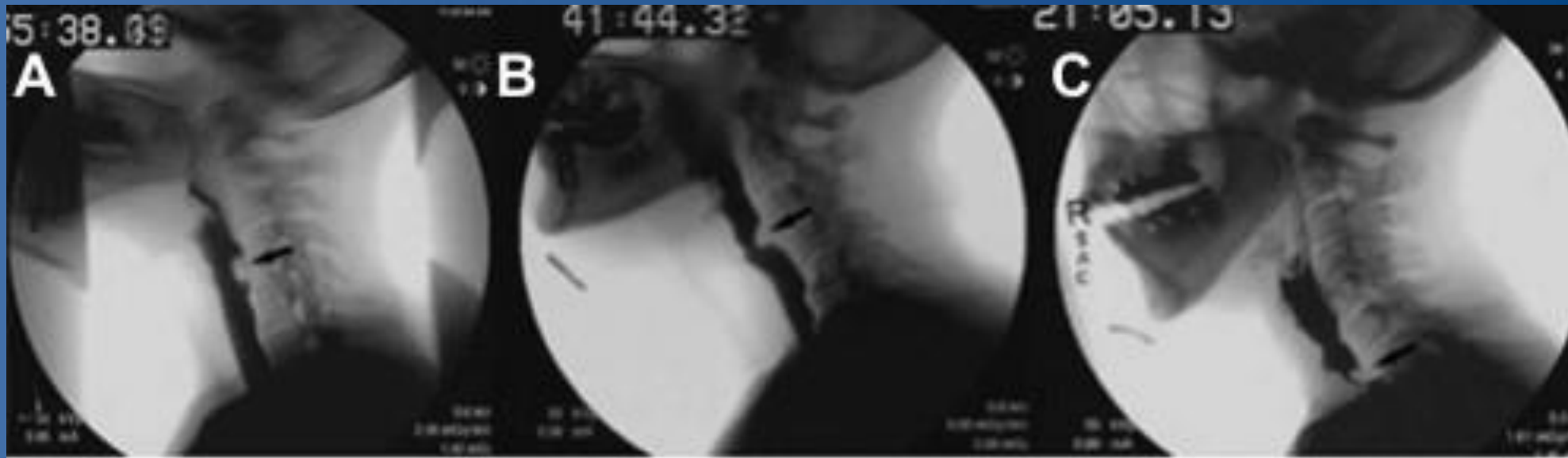
CPMD is attributed mainly to the disordered opening of the CP muscle:

- Anatomic (cricopharyngeal bar)
- Neuromuscular (central, peripheral, or myogenic)
- Iatrogenic
- Inflammatory
- Neoplastic
- Idiopathic



CPMD Diagnosis by Video-Fluoroscopy

Cricopharyngeal bar



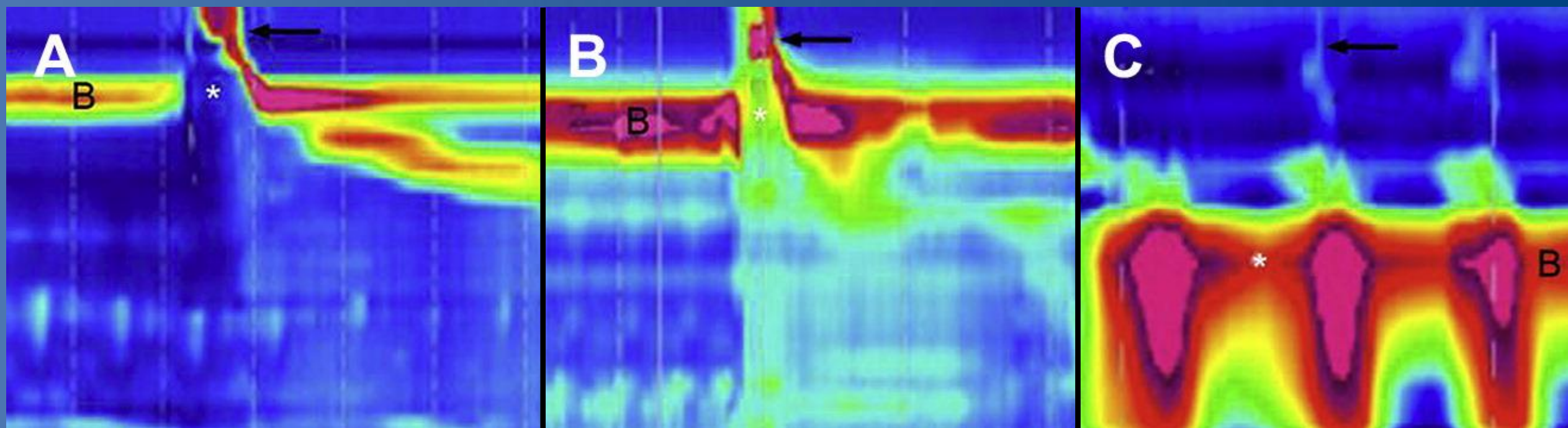
Mild

Moderate

Severe

CPMD Diagnosis by Esophageal Manometry

Pharyngeal and UES HRM



Management of CPMD

When to treat:

- Significant dysphagia
- Obstructing CPM bar
- Good esophageal motility
- Dilation of pharynx



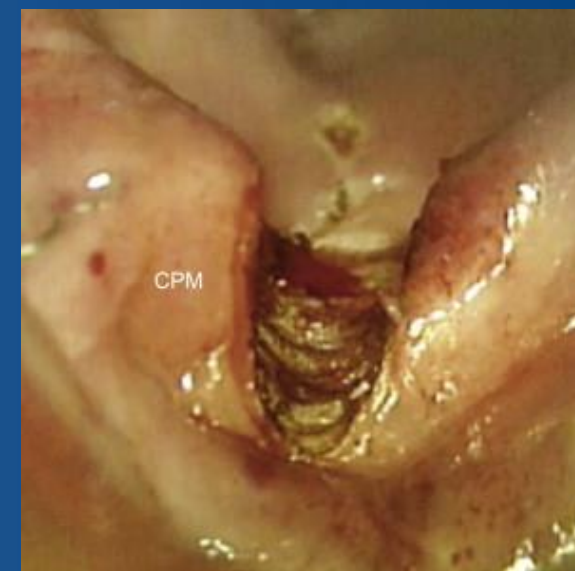
Management of CPMD



Botox



Dilation



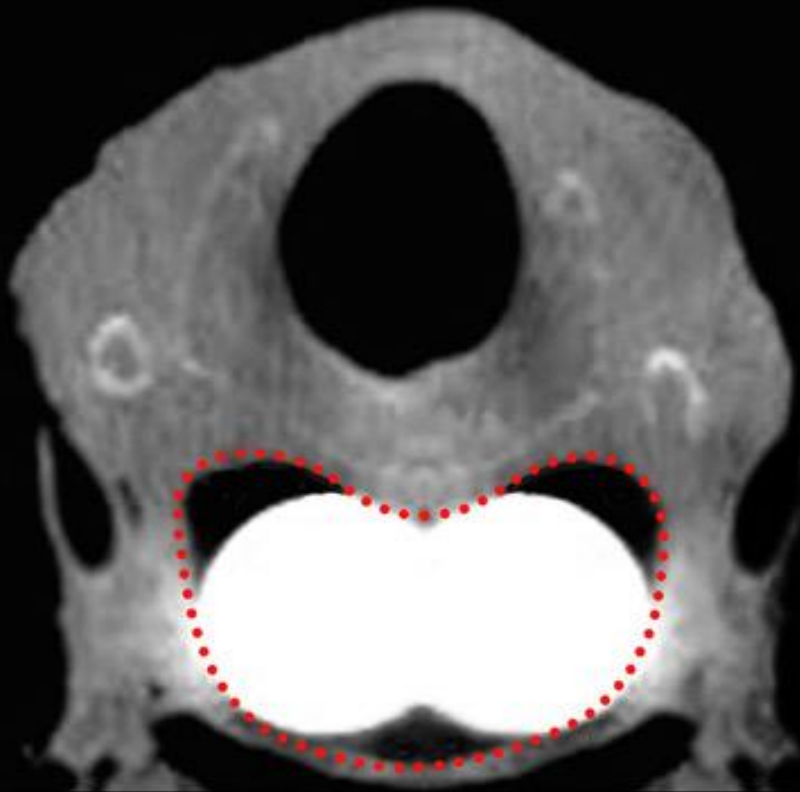
Myotomy

Management of CPMD

Table 3. Distribution of Success Rates of BoT Injection, Dilation, and Myotomy.

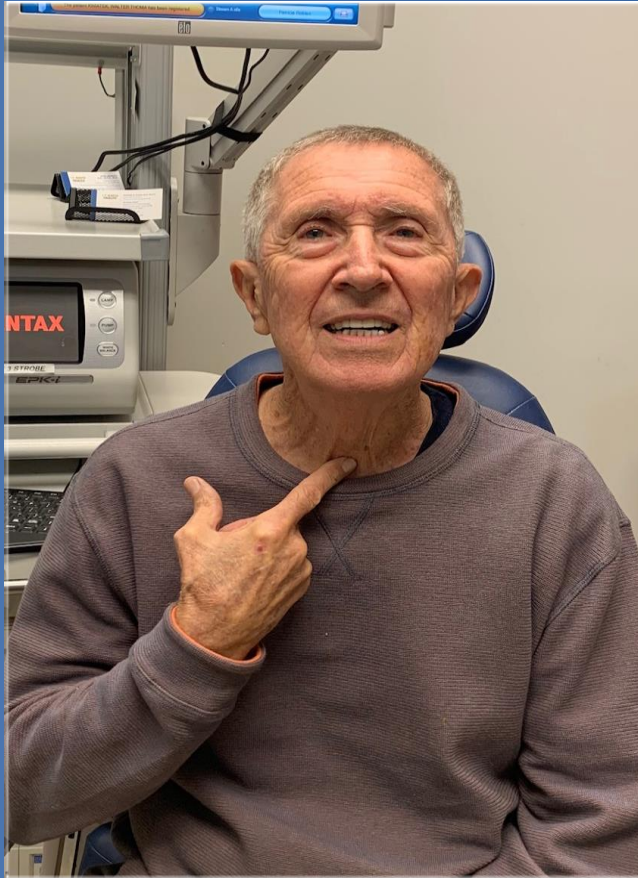
	No. of Articles	Range of Success Rates (Crude Average)	No. of Patients (Sum)	No. of Successes (Sum)	Patient-Weighted Average Success Rate
BoT Injection	12	43%–100% (76%)	148	102	69%
Dilation	6	58%–100% (81%)	113	83	73%
Myotomy	16	25%–100% (75%)	369	286	78%

Management of CPMD



	PRODUCT NUMBER	INFLATION PRESSURE	INFLATED BALLOON LATERAL DIMENSION	INFLATED BALLOON AP DIMENSION	INFLATED BALLOON LENGTH
INFINITY 1000- THE FARWELL	INF1023	5 atm	23 mm	11.5 mm	55 mm
INFINITY 3000- THE MERATI	INF3032	4 atm	32 mm	16 mm	55 mm
INFINITY 5000- THE POSTMA	INF5038	4 atm	38 mm	19 mm	55 mm

Harry



77 yo male presenting with solid food dysphagia

PMHx Oropharyngeal cancer

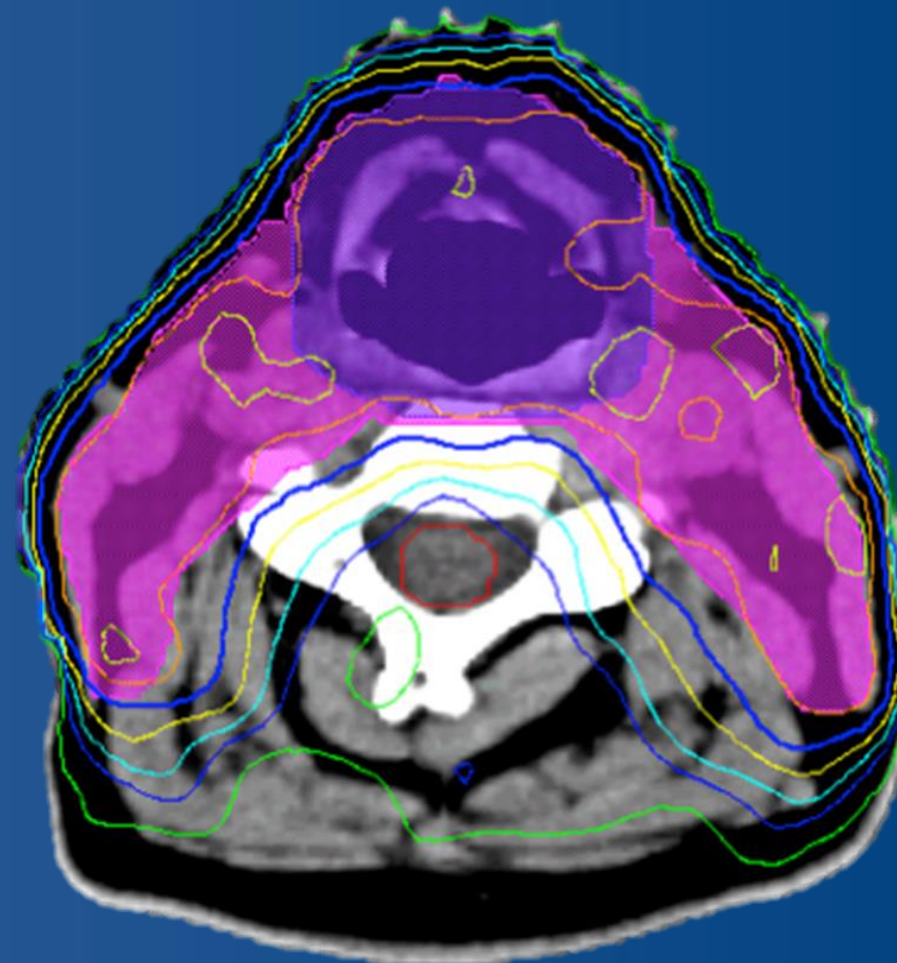
EAT10 - 32

Radiation-Induced Dysphagia

Reported by up to 3/4 patients within the first 90 days of treatment

In up to 50% at 2 years after therapy

Aspiration in 22-89%




Radiation-Induced Dysphagia

Otolaryngology–Head and Neck Surgery



Invited Article |  **Free Access**

Expert Consensus Statement: Management of Dysphagia in Head and Neck Cancer Patients

Maggie A. Kuhn MD, MAS , M. Boyd Gillespie MD, MSc, Stacey L. Ishman MD, MPH, Lisa E. Ishii MD, MHS, Rebecca Brody PhD, RD, CNSC, Ezra Cohen MD, FRCPSC, FASCO, Shumon I. Dhar MD, Kate Hutcheson PhD, Gina Jefferson MD, Felicia Johnson MD, Anais Rameau MD, MPhil, David Sher MD, MPH, Heather Starmer MA, CCC-SLP, BCS-S, Madeleine Strohl MD, **Karen Ulmer MS, RN**, CORLN, Vilija Vaitaitis MD, Sultana Begum MD, Misheelt Batjargal MD, MHA, Nui Dhepyasuwan MEd ... [See fewer authors](#) ^

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Conclusions

- Dysphagia is a common symptom and is a significant source of morbidity and mortality
- Dysphagia has a variety of causes, and elucidating the correct etiology is essential in managing the condition.
- A multidisciplinary approach is typically required for effective diagnosis and treatment



THANK YOU

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