AMSER Case of the Month September 2025

61-year-old female with dysphagia

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Patient Presentation

- Patient presented to primary care physician for evaluation of gastrointestinal (GI) complaints
- History of dysphagia, reflux, and ~13 lbs unintentional weight loss over 4 months
- Drinks 5-10 alcoholic beverages per week, mostly wine, former smoker

Pertinent Labs

- None

What Imaging Should We Order?

Select the applicable ACR Appropriateness Criteria

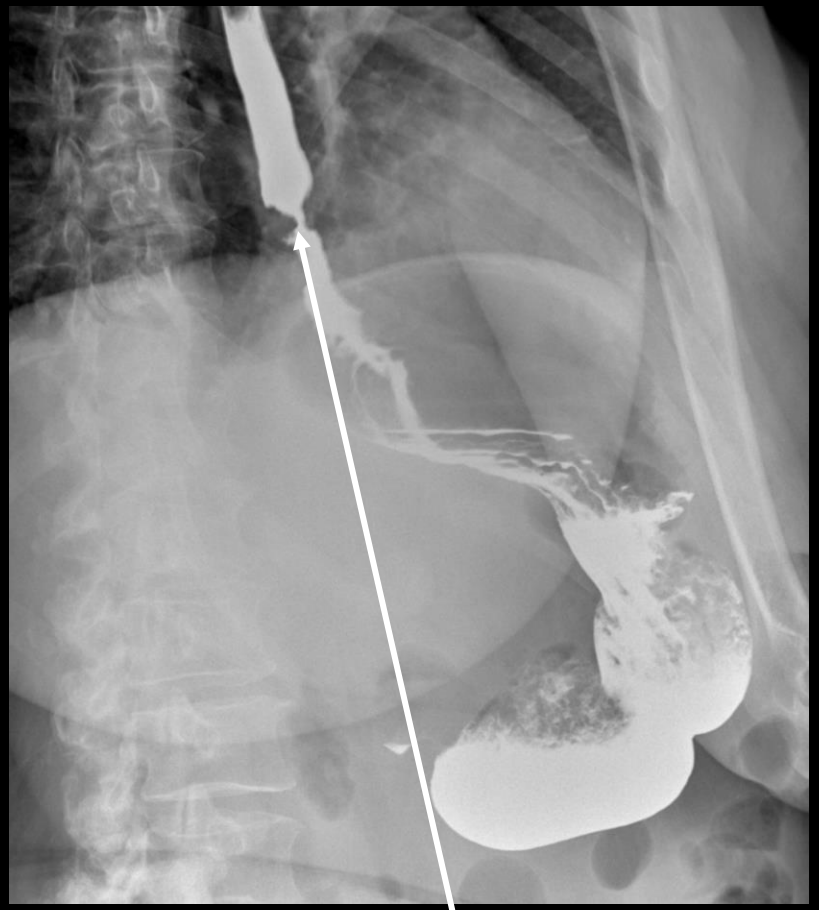
Variant 2: **Unexplained oropharyngeal dysphagia. Initial imaging.**

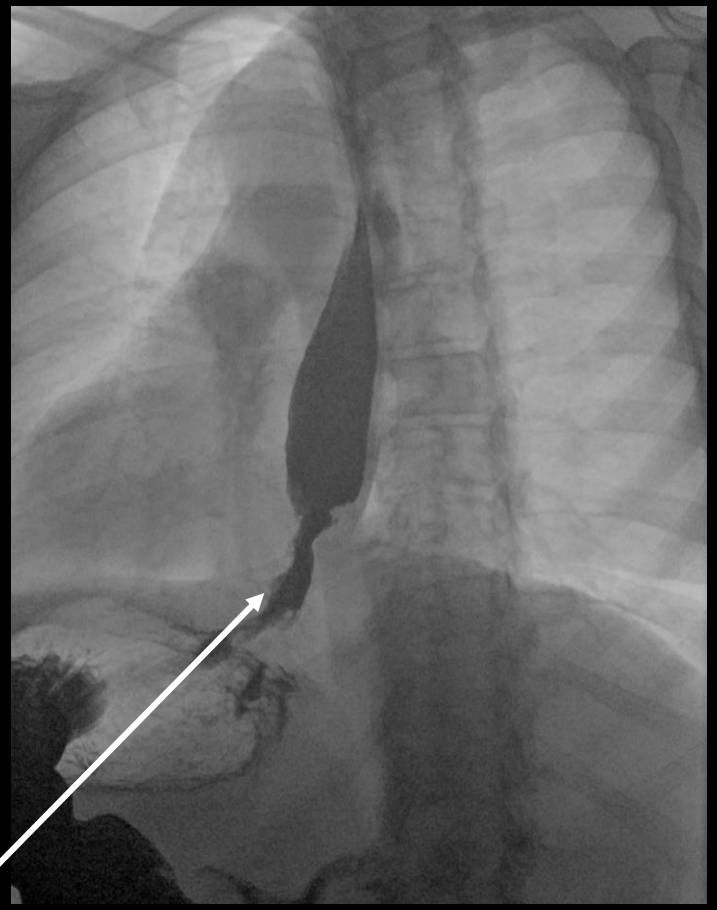
Procedure	Appropriateness Category	Relative Radiation Level
Fluoroscopy biphasic esophagram	Usually Appropriate	☢☢☢
Fluoroscopy barium swallow modified	May Be Appropriate	☢☢☢
Fluoroscopy single contrast esophagram	May Be Appropriate	☢☢☢
Fluoroscopy pharynx dynamic and static imaging	May Be Appropriate (Disagreement)	☢☢☢
Esophageal transit nuclear medicine scan	May Be Appropriate	☢☢☢
CT neck and chest without IV contrast	Usually Not Appropriate	☢☢☢☢
CT neck and chest with IV contrast	Usually Not Appropriate	☢☢☢☢
CT neck and chest without and with IV contrast	Usually Not Appropriate	☢☢☢☢

This imaging modality was ordered by the primary care physician

Findings: (unlabeled)

Findings: (labeled)





Long segment irregular narrowing of the distal esophagus and gastroesophageal junction extending over approximately 6-7 cm

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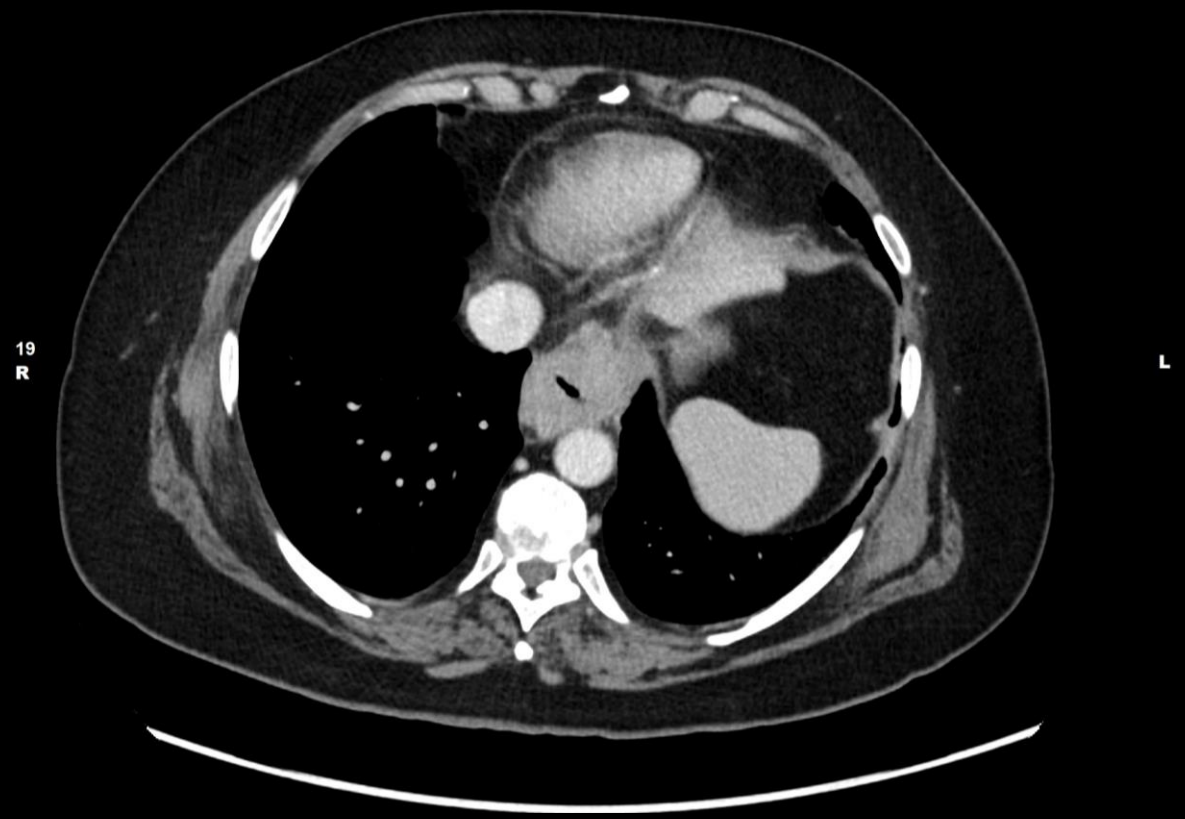
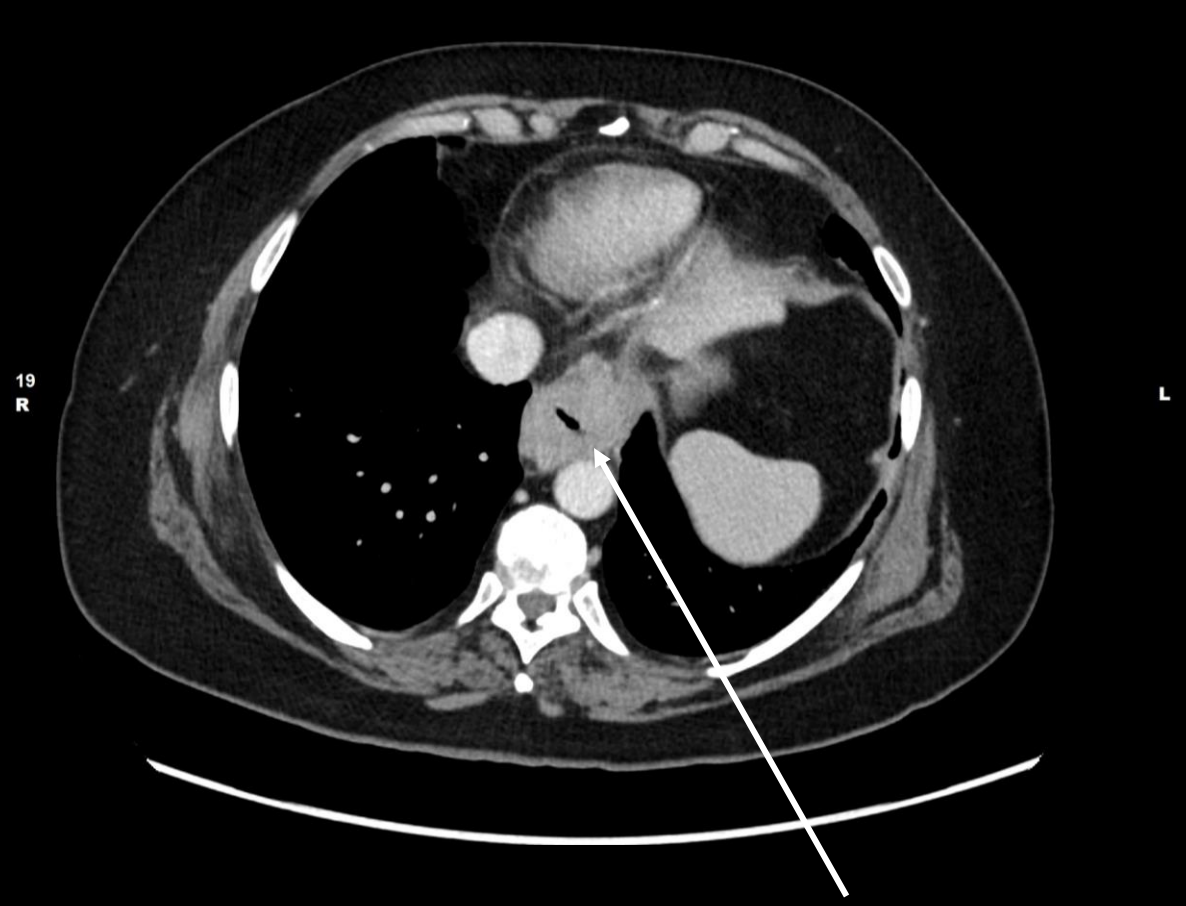
A follow-up CT and PET were ordered for further workup and staging

Findings: (unlabeled)



Findings: (labeled)



Locally advanced distal esophageal tumor characterized by irregular circumferential wall thickening, with malignant-appearing soft tissue extending beyond the esophageal margins and involving the left diaphragmatic crus

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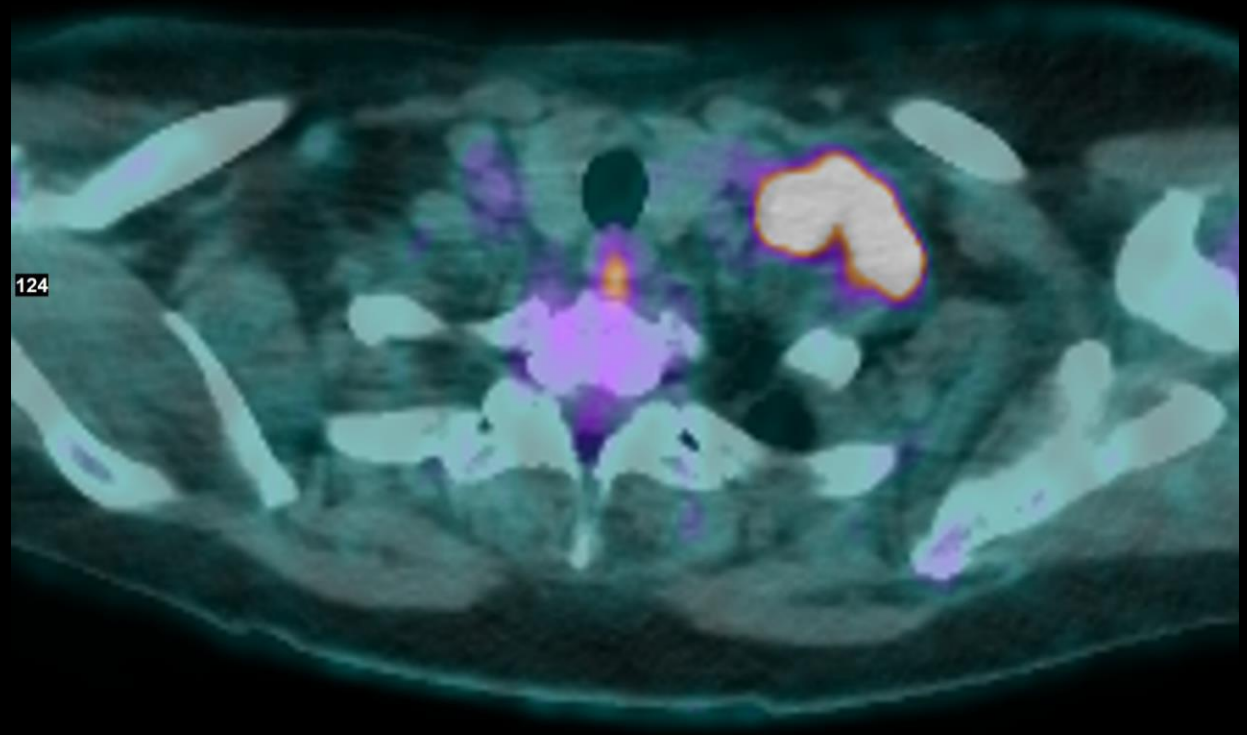
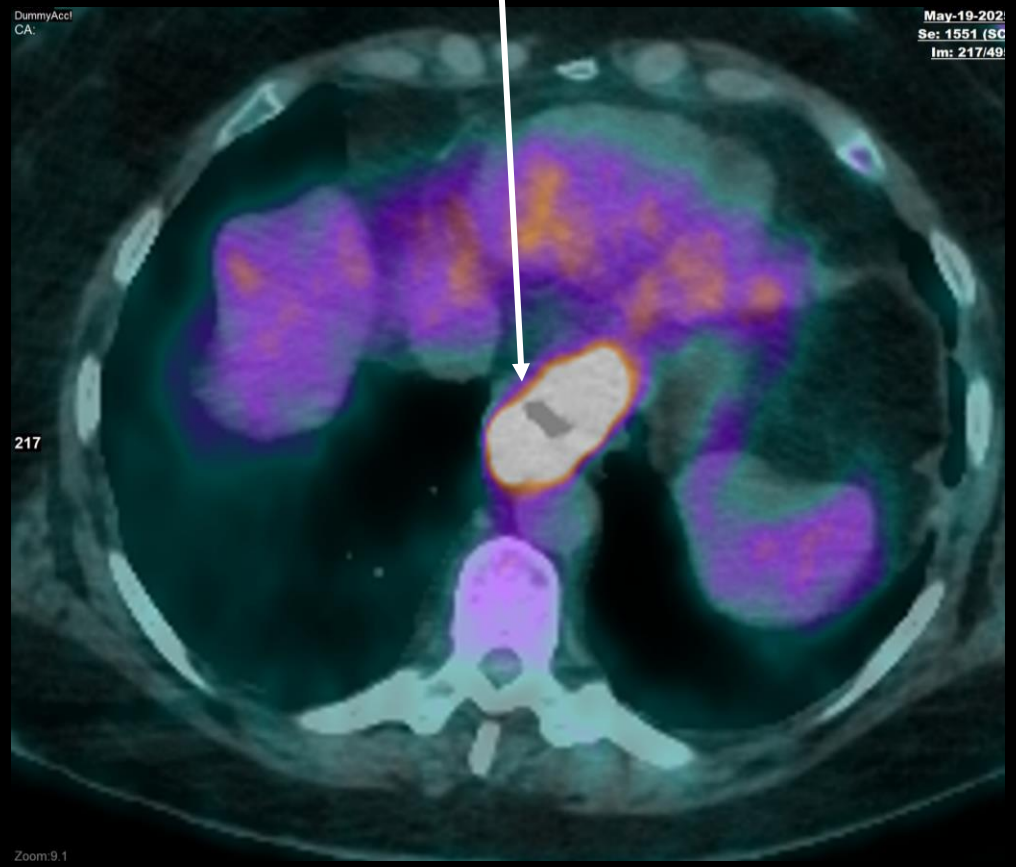
Findings: (unlabeled)

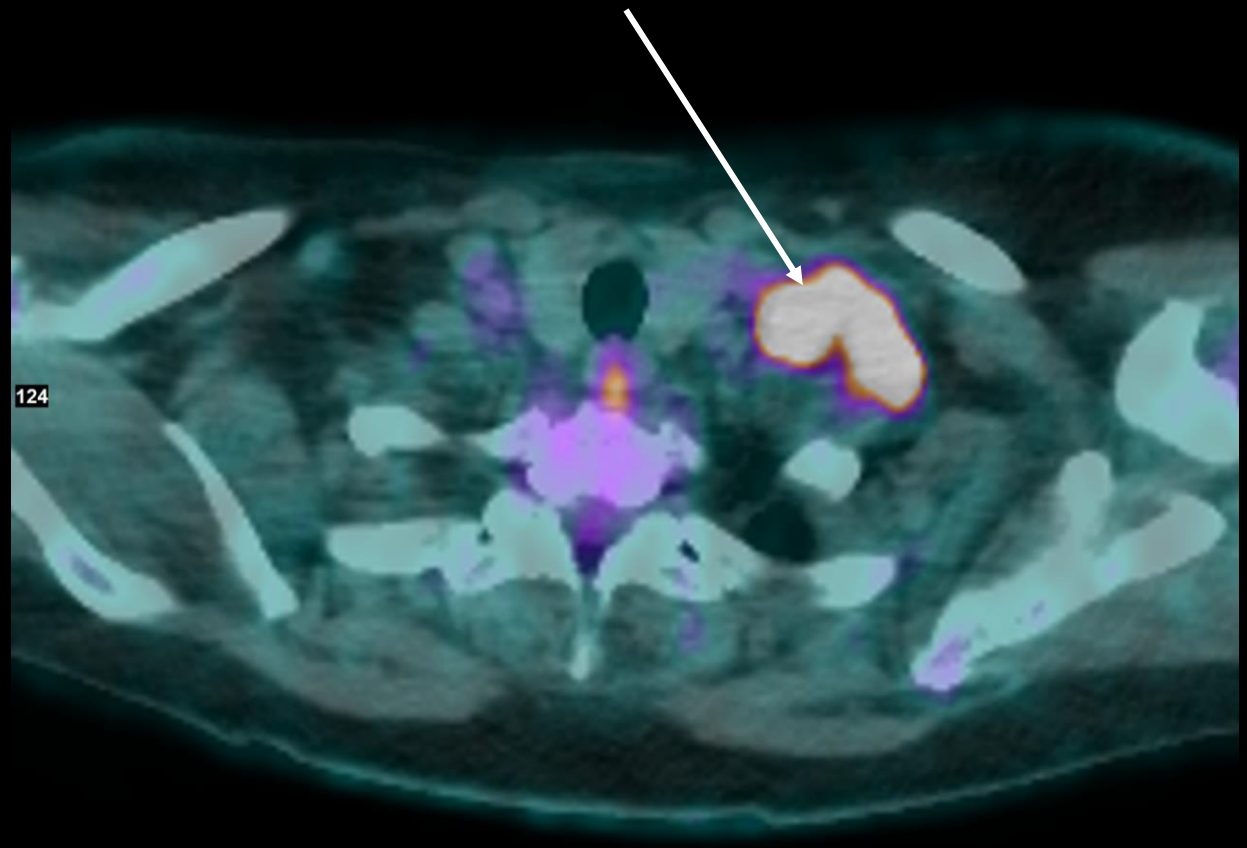


Findings: (labeled)

Large, known lower esophageal malignant mass is markedly hypermetabolic and extends slightly into the proximal stomach



Metastatic lymph nodes in the left supraclavicular region



Findings: EGD with bx

Findings:

A medium-sized, ulcerating mass was found in the lower third of the esophagus, 34 to 38 cm from the incisors. The mass was partially obstructing and partially circumferential (involving two thirds of the lumen circumference). Based on the epicenter of the tumor in the distal esophagus, this would be consistent with a Siewert type I lesion: adenocarcinoma of the distal esophagus (epicenter of lesion 1-5 cm above GEJ). Biopsies were taken with a cold forceps for histology.

The entire examined stomach was normal. Biopsies were taken with a cold forceps for Helicobacter pylori testing using CLOtest.

The examined duodenum was normal.

Impression:

- Partially obstructing, rule out malignancy, esophageal tumor was found in the lower third of the esophagus. Biopsied.
- Normal stomach. Biopsied.
- Normal examined duodenum.

Final Dx:

Biopsy proven poorly differentiated esophageal adenocarcinoma

Case Discussion

Patient Summary

- 61-year-old female with progressive dysphagia, reflux, and ~13 lb weight loss
- Symptom onset after rapid eating; persistent food retention even after stopping milk thistle
- Moderate alcohol intake; former smoker; mild nausea

Imaging Summary

- **Fluoroscopy**: Long segment irregular narrowing of distal esophagus and GE junction (6–7 cm)
- **CT Chest/Abdomen**: Locally advanced distal esophageal mass with diaphragmatic crus involvement
- **PET/CT**: Hypermetabolic mass extending into proximal stomach; metastases to left supraclavicular lymph node

Final Diagnosis

- Locally advanced distal esophageal adenocarcinoma with regional and distant nodal metastases

Case Discussion cont.

Pathophysiology and Risk Factors[1]

- Esophageal adenocarcinoma usually arises from Barrett's esophagus, typically in the distal third
- Risk factors include GERD, smoking history, alcohol intake, and obesity

Imaging Role[2]

- Fluoroscopy aids in assessing functional and structural esophageal abnormalities
- CT evaluates local invasion and lymphadenopathy
- PET/CT detects hypermetabolic activity for accurate staging and metastasis detection

Staging[3]

- Tumor: T3-T4 (local extension)
- Node: N2 or higher (multiple regional nodes)
- Metastasis: M1 (distant nodal involvement – e.g., left supraclavicular)

Case Discussion cont.

Treatment Options[4]:

- Multimodal: Neoadjuvant chemoradiation followed by esophagectomy for resectable disease
- Palliative chemoradiation or stenting for unresectable/metastatic disease
- Nutritional support is critical due to dysphagia and weight loss

Prognosis:

- 5-year survival rate ~25% for locally advanced; significantly lower for metastatic disease[1]

Key Teaching Point:

- Dysphagia with weight loss in older adults warrants prompt imaging for malignancy evaluation

References:

1. Rustgi AK, El-Serag HB. Esophageal carcinoma. *N Engl J Med*. 2014;371(26):2499-2509. doi:10.1056/NEJMra1314530
2. Jayaprakasam VS, Yeh R, Ku GY, et al. Role of Imaging in Esophageal Cancer Management in 2020: Update for Radiologists. *AJR Am J Roentgenol*. 2020;215(5):1072-1084. doi:10.2214/AJR.20.22791
3. Berry MF. Esophageal cancer: staging system and guidelines for staging and treatment. *J Thorac Dis*. 2014;6 Suppl 3(Suppl 3):S289-S297. doi:10.3978/j.issn.2072-1439.2014.03.11
4. National Cancer Institute. *Esophageal Cancer Treatment (PDQ®)–Patient Version*. Bethesda, MD: National Cancer Institute; updated May 2025. Accessed July 18, 2025. https://www.cancer.gov/types/esophageal/patient/esophageal-treatment-pdq