

When All You See is Black: A case of Acute Esophageal Necrosis

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Background

- Acute esophageal necrosis (AEN), sometimes called “black esophagus,” is a rare, life-threatening condition of the esophagus with a mortality rate as high as 32%
- The pathophysiology of AEN is multifactorial
 - Hypoperfusion
 - Impaired Local Defense Barriers
 - Influx of Gastric Contents
 - Thromboembolic Phenomena

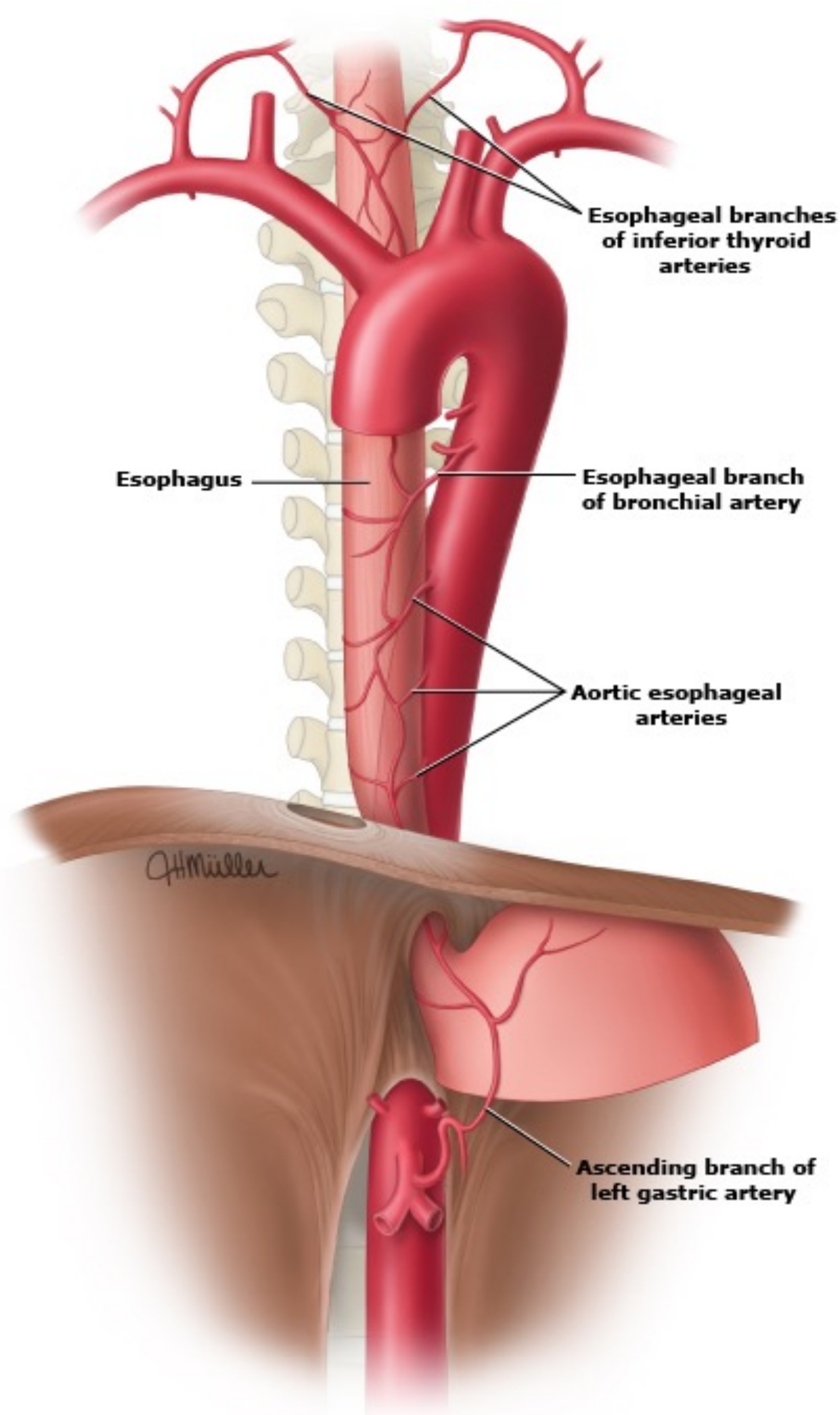


Figure 1: Blood supply of the esophagus.

- Endoscopic evaluation reveals diffuse, circumferential, black-appearing distal esophageal mucosa that abruptly stops at the gastroesophageal junction (GEJ)
- Risk Factors:
 - Male, Older Age, Chronic Medical Conditions, Renal Insufficiency, Cardiovascular Compromise, Trauma, Thromboembolic Phenomena

Presentation

- A 73 year old male with a history of NASH Cirrhosis, HTN, T2DM, CAD, AAA who presented with hematemesis.
- On arrival, he was afebrile, normotensive with a slight tachycardia. Hemoglobin was 11g/dL
- He was started on an octreotide, pantoprazole, and ceftriaxone
- Urgent EGD revealed black material coating the esophagus, portal hypertensive gastropathy, duodenitis, and superficial duodenal ulcers
- Due to repeat episodes of hematemesis repeat EGD 24 hours revealed ulceration of the mid and distal esophagus consistent with acute esophageal

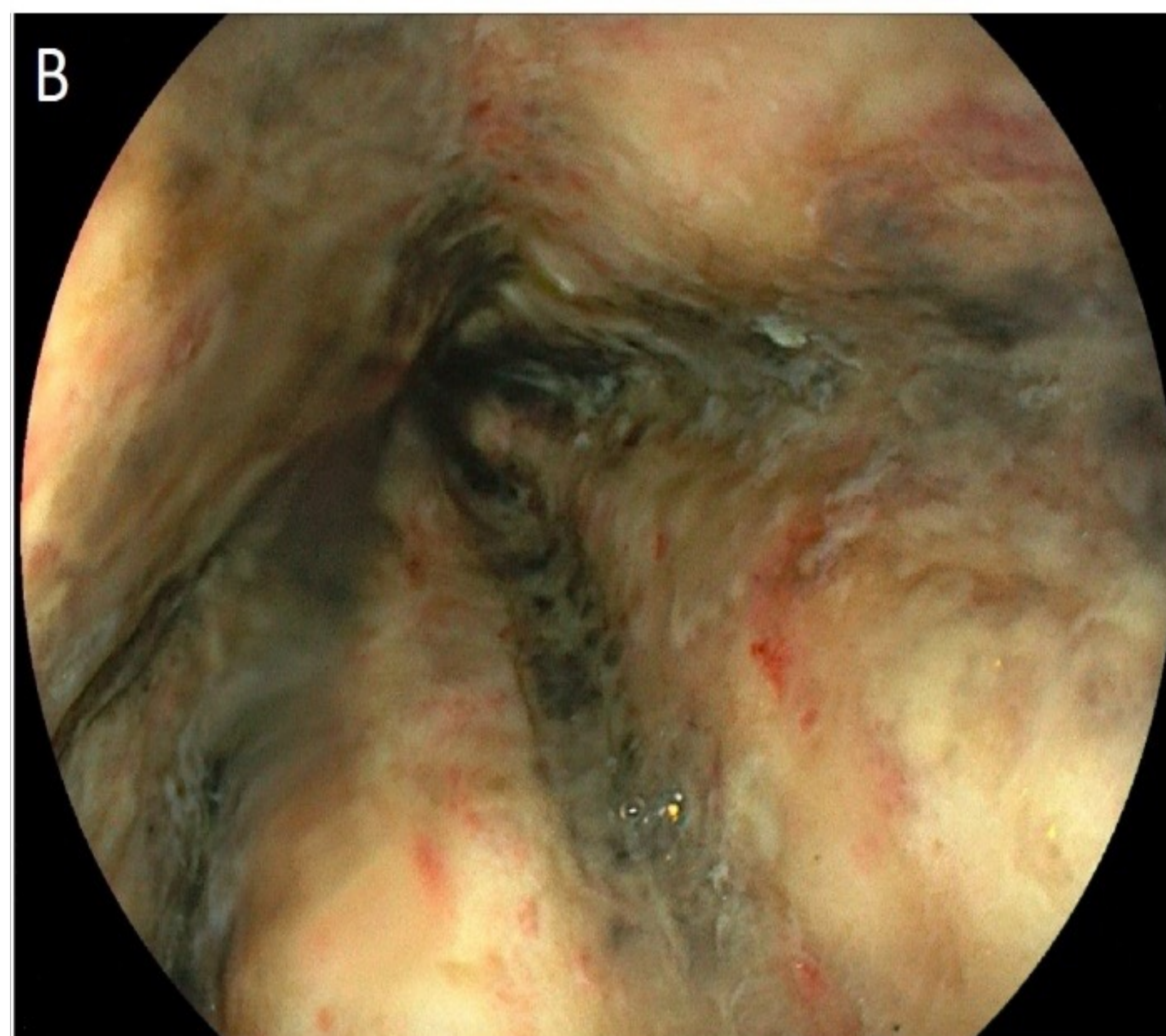
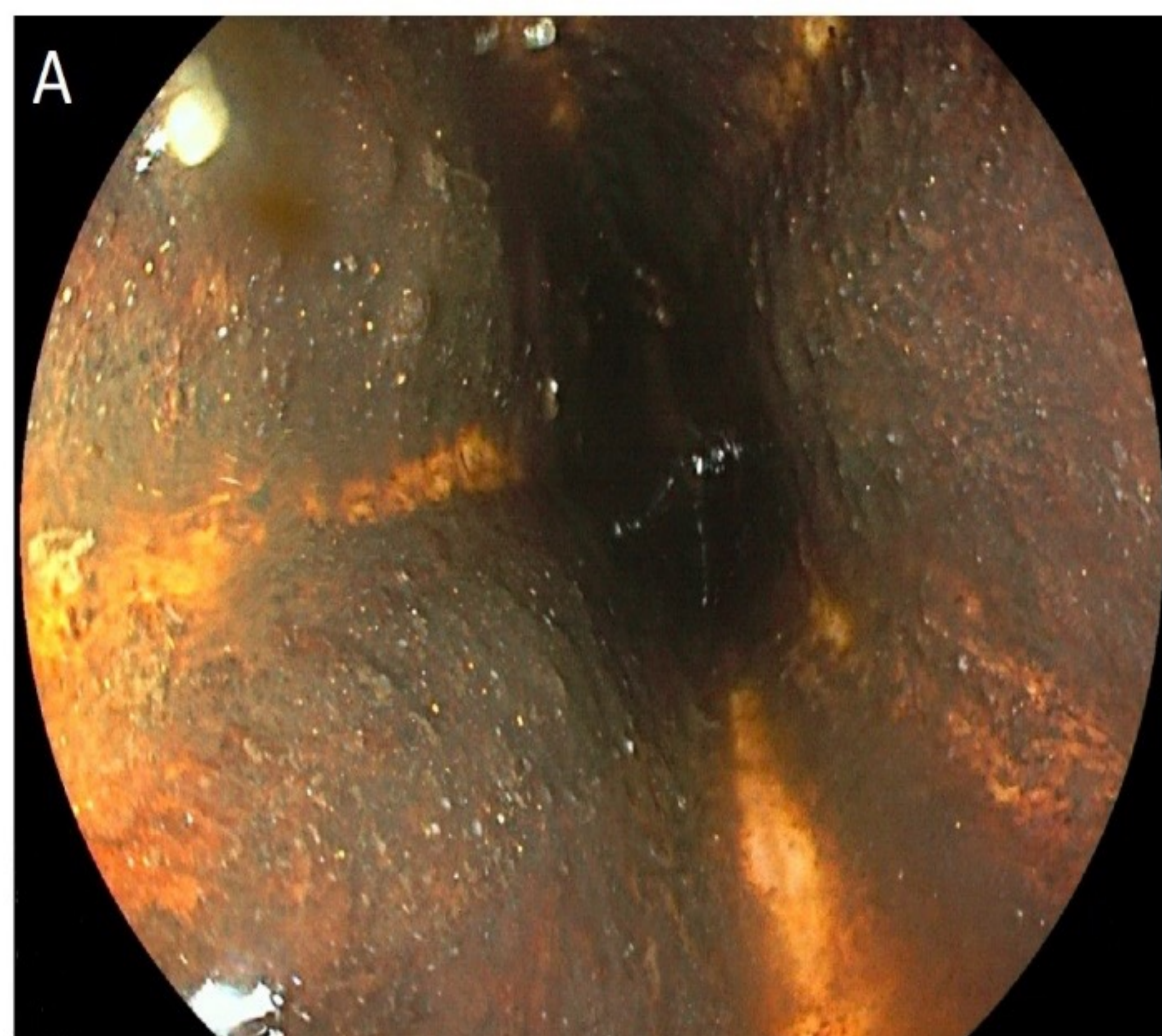


Figure 2: Endoscopic appearance of the esophagus on day of presentation (A) showing black, necrotic appearance of esophagus and 24 hours later on repeat examination (B) demonstrating ulcerated esophageal mucosa.

Outcome

- A CT Angiogram did not reveal stenosis or thromboembolic phenomena
- Initially monitored in Intensive Care Unit, started on sucralfate slurry, and diet was initiated 24 hours post procedure
- Diet was advanced as tolerated, he was transferred out of the ICU within 24 hours
- Discharged to Skilled Nursing Facility after close monitoring of clinical and laboratory status

Discussion

- Our patient had multiple factors likely leading to the development of AEN
 - Male Sex
 - >60 yo
 - Comorbidities:
 - NASH Cirrhosis, Hypertension, Diabetes Mellitus, Coronary Artery Disease, Vascular disease
- It is important to monitor for complications of AEN
 - Initial Recovery Period
 - Perforation
 - Microbial Superinfection
 - Late Sequela
 - Stenosis
 - Stricture
- This case highlights the importance of quickly triaging patients and intervening appropriately to combat the high mortality rate of AEN

Sources

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3- Abdullah H, Ullah W, Abdallah M, et al. Clinical presentations, management, and outcomes of acute esophageal necrosis: a systemic review. *Exp Rev Gastroenterol and Hep.* 2019;13:507-514.