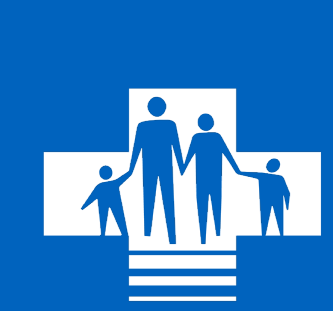


A DARK OMEN: ACUTE ESOPHAGEAL NECROSIS ASSOCIATED WITH COVID-19

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INTRODUCTION

- Black esophagus, also known as acute esophageal necrosis (AEN) is a rare clinical entity with an estimated prevalence of 0.01 - 0.28%. [1]
- Characterized by diffuse circumferential black discoloration of the esophagus terminating at the gastroesophageal (GE) junction.
- Associated with tissue hypoxia due to low flow vascular states and corrosive injury in the setting of severe illness.
- Typically, patients present with upper GI bleeding, and hematemesis or melena is seen in up to 90% of cases. [2]
- We present a rare case of a black esophagus in the setting of severe Coronavirus-19 (COVID-19) infection with classic findings on endoscopy.

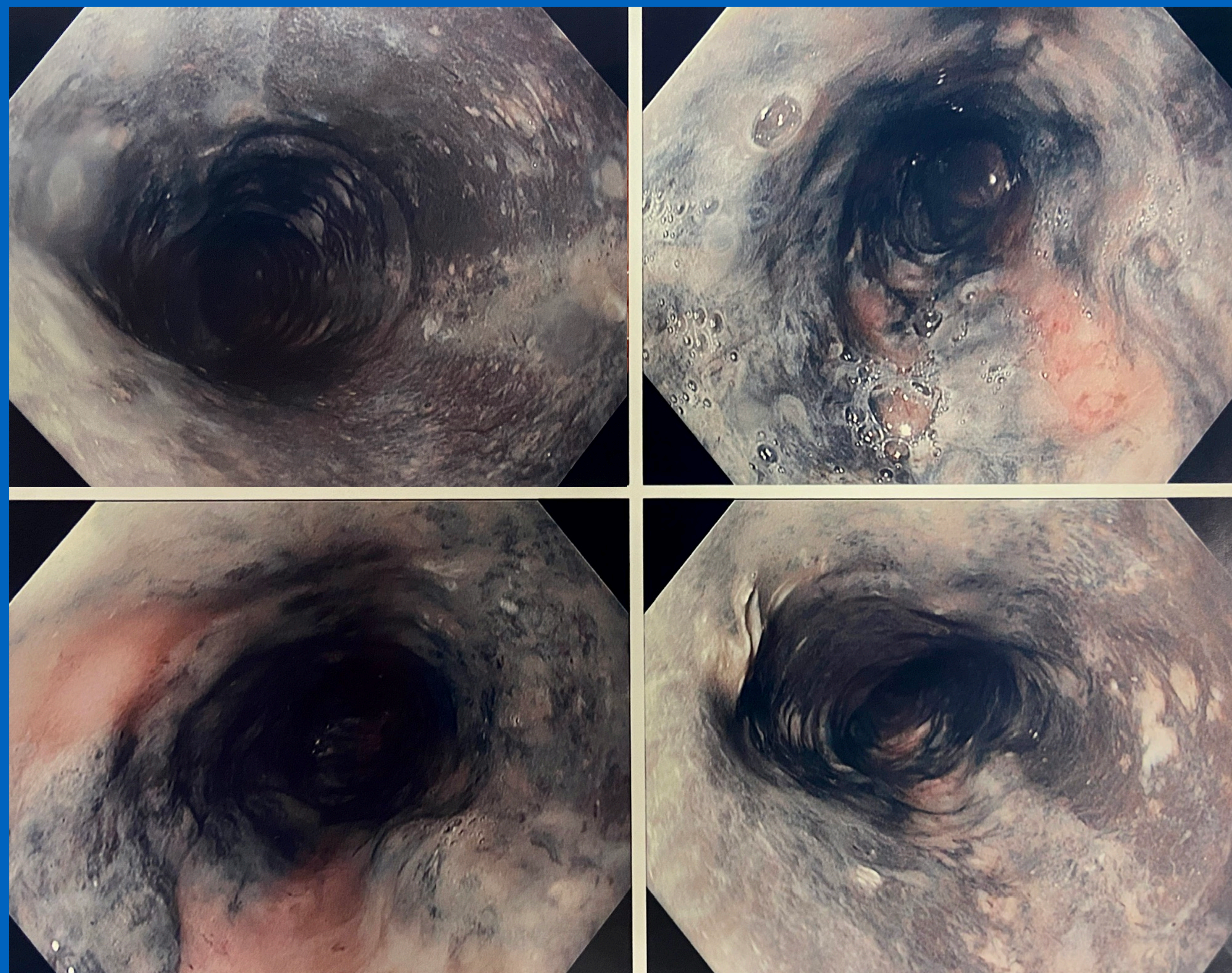


Figure 1: Esophagogastroduodenoscopy findings show necrosis in the whole esophagus. Diffuse continuous black discoloration of the esophageal mucosa.

CASE

- A 75-year-old male with diabetes and chronic kidney disease presented after a fall and prolonged down time found to be in acute on chronic renal failure with rhabdomyolysis.
- On day 3 he developed respiratory failure from COVID-19 requiring steroids and ventilator support.
- Developed new onset atrial fibrillation for which he received anticoagulation, worsening renal function requiring hemodialysis and significant hypotension requiring vasopressor support.
- Patient developed melena with a significant drop in hemoglobin.
- EGD showed diffuse continuous black discoloration of the esophageal mucosa with abrupt transition at the GE junction consistent with black esophagus with multiple ulcers in stomach and duodenum. (Fig. 1)
- Patient was kept on IV proton pump inhibitors and anticoagulation was discontinued. Given worsening multiorgan failure, he was transitioned to comfort measures only and passed away the next day.

DISCUSSION

- AEN is a very concerning finding which must be recognized early and managed aggressively to improve clinical outcomes.
- In our patient AEN was likely due to a combination of hypoperfusion and hypoxia in the setting of severe COVID-19 infection with multiorgan failure.
- AEN could be seen more frequently in patients with severe COVID-19 infections who are frequently anticoagulated due to the associated prothrombotic state with increased risk of GI bleeding.
- It is important for physicians to be aware of AEN as a possible etiology of GI bleeds in these patients.

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