Timely Endoscopic Recognition of Aortoesophageal Fistula With Successful Treatment

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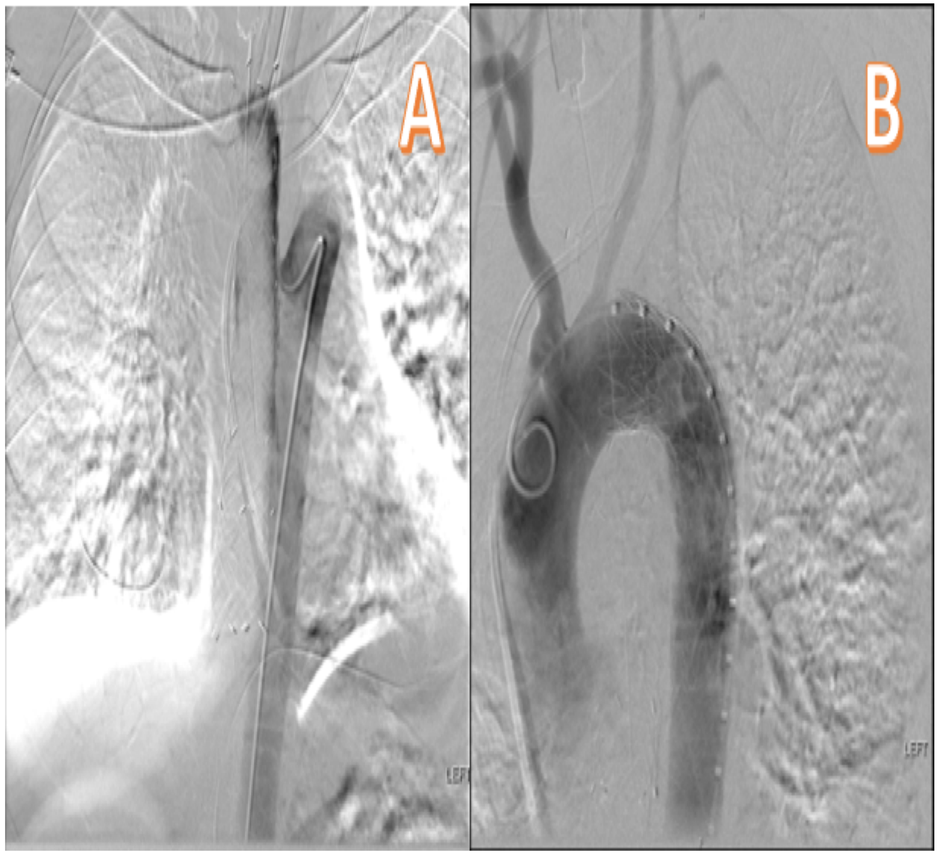
Background

- Aortoesophageal fistula (AEF) is a devastating cause of upper gastrointestinal bleeding that occurs due to pathologic communication of the esophagus with the aorta.
- Risk factors include thoracic aortic aneurysm, foreign body ingestion, esophageal cancer, post-surgical complications, and prior radiation therapy. Prompt diagnosis of aortoesophageal fistula is critical due to the catastrophic consequences of this condition.

Case

- Our patient is a 52-year-old man presenting with hematemesis and hematochezia. He has history of non-small cell lung cancer treated with chemoradiation. Treatment has been complicated by esophageal strictures that have required dilation. During EGD, he developed coughing and began to have profuse bleeding in the mid esophagus.
- Bleeding was uncontrolled despite epinephrine injection, thermal therapy with gold probe, hemostatic clip, and hemospray. Two fully covered esophageal stents were placed but were unsuccessful in tamponading the area. An esophageal dilation balloon was insufflated within the stents for temporary control.

Figures



A) Aortogram showing aortoesophageal fistula. B) Aortogram showing resolution of the fistula after placement of the aortic stent.

Clinical Course

- He developed hemorrhagic shock and was transferred emergently to the interventional radiology suite. A subsequent thoracic aortogram with supplemental angiograms demonstrated an AEF(Figure 1A).
- Vascular surgery placed an emergent endovascular thoracic stent graft with resolution of bleeding (Figure 1B). The patient was admitted to the surgical intensive care unit. He subsequently recovered and was able to be discharged home.

Discussion/Conclusions

- Risk factors for AEF in our patient include prior radiation therapy and esophageal strictures needing dilation. Classic clinical signs include midthoracic pain or dysphagia followed by sentinel hemorrhage and exsanguination after a symptom free interval (i.e., Chiari's triad).
- Diagnostic techniques include endoscopy and imaging (typically with computed tomography or angiogram as in our case). Preferred definitive treatment consists of endovascular aortic repair via stent-graft placement. Our patient also underwent endoscopic stent placement with balloon tamponade as a temporizing measure for management of hemorrhagic shock.