Aortoesophageal fistula resulting from aortic endograft migration

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Thoracic endovascular aortic repair (TEVAR) is becoming the preferred treatment for thoracic aortic aneurysms.^{1,2} Aortoesophageal fistula is a rare, life-threatening complication following TEVAR.³ Here we present a 78-year-old female who developed hematemesis 2.5 years after TEVAR. Endoscopy revealed a 2-cm esophageal ulcer with endograft protruding into the lumen (Figure 1). A contrast computed tomography (CT) scan revealed a proximal type IA endoleak (Figures 2 and 3) with distal endograft migration (Figure 3) and kinking (Figures 4 and E1).

We hypothesize that migration and kinking of the endograft produced compression on a potentially malperfused esophagus from TEVAR coverage of its feeding arterial branches,⁴ leading to necrosis and subsequent creation of the aortoesophageal fistula. The patient underwent

Contrast computed tomography revealing an aortoesophageal fistula.

Central Message

Here we show an aortoesophageal fistula after thoracic endovascular aortic repair resulting from endograft migration and kinking, producing compression on a relatively ischemic esophagus.

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proximal endograft extension to the level of the innominate artery after a right-to-left carotid-carotid bypass. An esophageal stent was placed (Figure E2), and interval esophagectomy, retrosternal gastric tube reconstruction, and interposition of latissimus dorsi at the esophagoaortic interface were planned. This approach was based on previous reports of successful surgical intervention.⁵

The patient declined esophagectomy, however, and has remained on moxifloxacin and fluconazole therapy indefinitely for graft infection prophylaxis. She was alive and asymptomatic 6 months later.

FIGURE 1. Endoscopy showing endograft protruding into the esophageal lumen.

FIGURE 2. Contrast computed tomography revealing a type IA endoleak (arrow).

FIGURE 3. Computed tomography reconstruction indicating the type IA endoleak (arrow) and distal endograft migration (bracket).

FIGURE 4. Computed tomography scan revealing a kinked endograft compressing the adjacent esophagus (arrow).

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FIGURE E1. Computed tomography reconstruction revealing the kinked endograft.

FIGURE E2. Computed tomography scan showing the aortic endograft and esophageal stent.