Aortoesophageal fistula (AEF) is a rare cause of catastrophic gastrointestinal bleeding. Thoracic aortic aneurysms are the leading cause of AEF [1]. Early diagnosis and prompt endovascular and/or surgical intervention before massive exsanguinating hemorrhage are key to survival [2]. Temporary endoscopic management with esophageal stent placement has been reported as a bridge therapy [3, 4].

We describe a case of AEF with active bleeding noted during an endoscopic examination that was treated with injection of N-butyl-2-cyanoacrylate (NBCA, Histocryl), followed by successful placement of an endovascular aortic stent graft.

A 69-year-old man with a history of ruptured diverticula that had been managed surgically presented to the emergency department with a 1-day history of chest pain and tarry stool, with hematemesis and hematochezia on the morning of admission. His heart rate was 95 beats/min and his blood pressure was 214/111 mmHg. Laboratory data showed a rapid decline in hemoglobin (13.1 g/dL to 10.2 g/dL in 3 hours). Emergent esophagogastroduodenoscopy (EGD) revealed a 3-cm submucosal mass lesion with a spurting vessel 26 cm from the incisors (Fig. 1a).

Two milliliters of NBCA mixed with lipiodol was injected locally, achieving temporary hemostasis. Contrast-enhanced computed tomography of the chest disclosed a descending thoracic aortic aneurysm with a 5-mm AEF (Fig. 2).

Aorta angiography revealed a 5-mm aneurysm without active extravasation in the mid thoracic aorta (Fig. 3a). The thoracic aortic aneurysm was repaired with a Cook Zenith II (34 mm × 77 mm) stent graft without complications (Fig. 3b). EGD after stent grafting the same day showed a submucosal mass measuring 3 cm × 1.8 cm with an erosive lesion and NBCA coating (Fig. 1b).
After stent grafting, the patient suffered from intermittent episodes of chest and back pain. Intravenous broad-spectrum antibiotics were administered for a total of 8 weeks, followed by oral antibiotics. The patient recovered and remained healthy at 8 months follow-up.

Competing interests: None

K.-C. Tseng¹,², C.-W. Lin¹ J. W.-H. Tan³
¹ Department of Internal Medicine, Buddhist Dalin Tzu Chi General Hospital, Chia-Yi, Taiwan
² School of Medicine, Tzuchi University, Hualien, Taiwan
³ Department of Radiology, Buddhist Dalin Tzu Chi General Hospital, Chia-Yi, Taiwan
⁴ Department of Cardiovascular Surgery, Buddhist Dalin Tzu Chi General Hospital, Chia-Yi, Taiwan

References

Corresponding author
J. W.-H. Tan, MD
Department of Cardiovascular Surgery
Buddhist Dalin Tzu Chi General Hospital
No. 2, Min-Sheng Road
Dalin Town
Chia-Yi
Taiwan, 622
Fax: +886-5-2648006
neugine@gmail.com

Fig. 3 a Aortogram showing a 5-mm aneurysm (arrow) from the mid thoracic aorta just below the carina without active extravasation into the esophagus. b After stent grafting, the aneurysm has disappeared.