

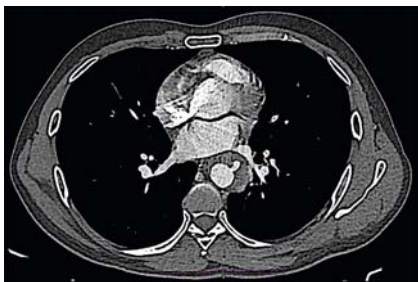
## Endovascular aortic repair for aorto-esophageal fistula in a young man: have all loose ends been tied?



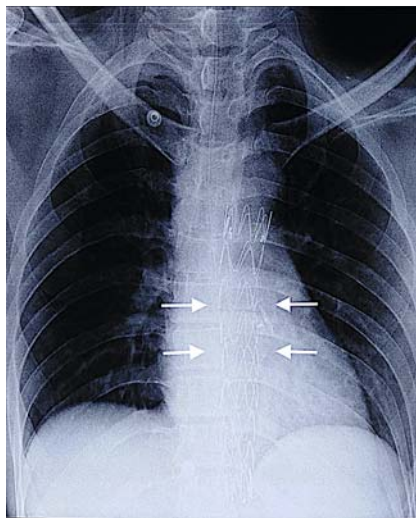
► **Fig. 1** Endoscopy image revealing an ulcer at about 32 cm in the esophagus.



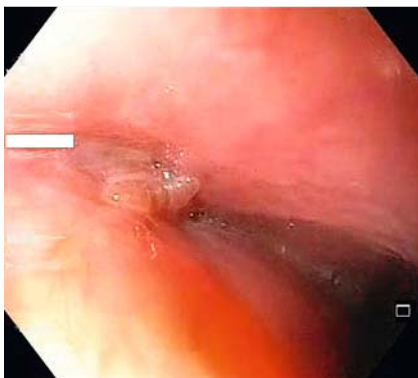
► **Fig. 2** Endoscopic clip application at the site of esophageal ulcer.



► **Fig. 3** Computed tomography angiography shows a large hematoma around the thoracic aorta and contrast outpouching with expanding thrombus along the adjacent esophagus.



► **Fig. 4** Chest X-ray revealing the position of the aortic stent graft.



► **Fig. 5** Near complete closure of the esophageal opening with granulation tissue at the site.

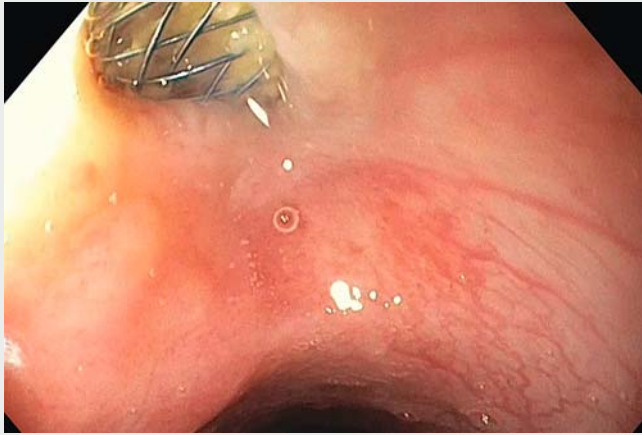
A 36-year-old man presented with a history of large-volume hematemesis. Clinical examination revealed severe pallor, hypotension, and feeble peripheral pulses. After initial resuscitation, an upper gastrointestinal (GI) endoscopy was performed, which revealed an ulcerated lesion at about 32 cm from the incisors (► **Fig. 1**). An attempt was made to close the ulcer with endoclips but was unsuccessful (► **Fig. 2**). Contrast-enhanced

computed tomography (CT) revealed a large hematoma around the thoracic aorta, contrast outpouching, and expanding thrombus along the adjacent esophagus, suggesting the diagnosis of an aorto-esophageal fistula (► **Fig. 3**). The aortic rent was closed using an 8 to 10-mm patent ductus arteriosus closure device, and a nasogastric tube was placed for feeding.

He was apparently asymptomatic for 39 days, after which he had a repeat bout of hematemesis. Evaluation revealed displacement of the closure device. At this juncture, thoracic endovascular aortic repair was performed and an aortic stent graft (VAMF, 26-26-150; Medtronic, Minneapolis, Minnesota, USA) was placed (► **Fig. 4**). On subsequent follow-up, endoscopy revealed a fistulous opening, and the aortic stent graft could be visualized through the opening (video image). The option of surgery and placing a covered esophageal stent was discussed with the patient. However, he was unwilling to undergo the procedure, and therefore nasojejunal feedings were continued for 2 months to prevent infection of the stent graft and allow for healing of the fistula. Subsequent endoscopy revealed healing of the fistulous opening with granulation tissue at the site of the previous fistulous opening (► **Fig. 5**).

An idiopathic aorto-esophageal fistula is a rare cause of upper GI bleeding, especially in young men with no prior history of aortic surgery [1]. Early diagnosis and management are crucial owing to the high mortality associated with this condition [2]. In this video case, we presented the course of a young man diagnosed with an aorto-esophageal fistula (► **Video 1**). In addition, we highlighted the importance of healing towards the esophageal site to prevent infection of the aortic stent graft.

Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AD\_3AZ



**Video 1** Endovascular aortic repair of aorto-esophageal fistula with aortic stent graft after displacement of original closure device.

## Bibliography

Endoscopy 2021; 53: E336–E337  
DOI 10.1055/a-1287-8799  
ISSN 0013-726X  
published online 3.11.2020  
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Georg Thieme Verlag KG, Rüdigerstraße 14,  
70469 Stuttgart, Germany

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## Competing interests

The authors declare that they have no conflict of interest.

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