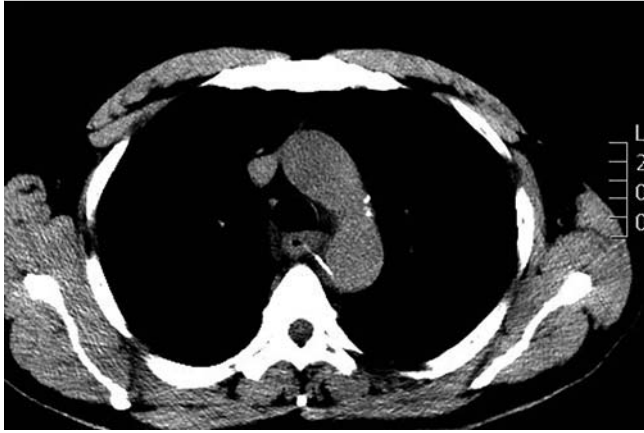
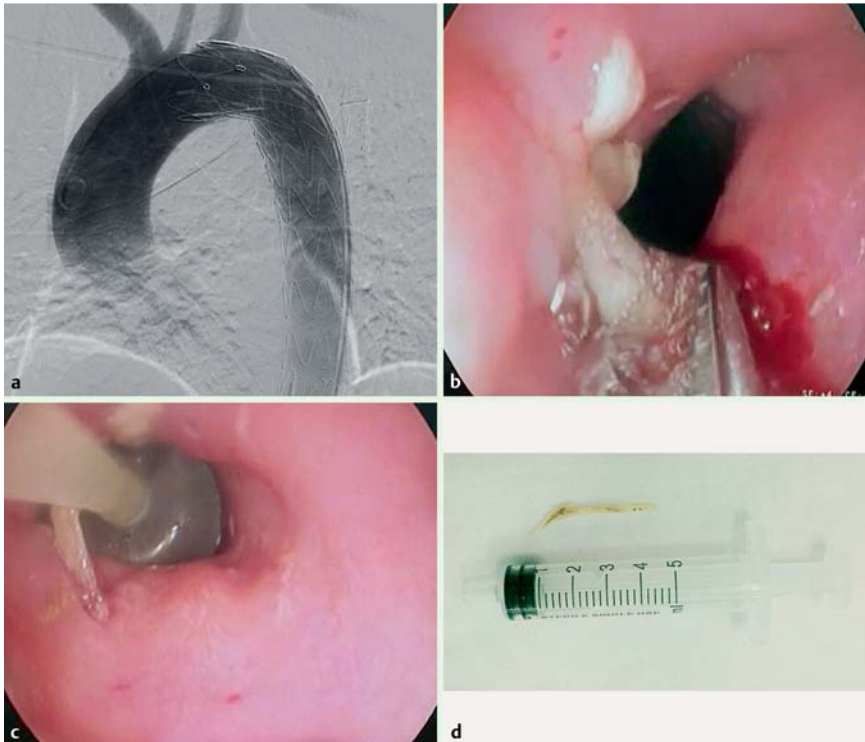


## Endoscopic extraction of a fish bone with a Foley catheter after endovascular stent graft placement for penetrating aorto-esophageal injury



**Fig. 1** Computed tomographic scan showing a foreign body penetrating through the esophagus into the thoracic aorta in a 55-year-old man presenting with retro-sternal pain and odynophagia.



**Fig. 2** **a** Intraoperative aortography showing no extravasation of contrast agent after stent graft placement. **b** Both ends of the bone are impacted in the esophagus close to the second narrowing. **c** The catheter balloon dilating the esophageal lumen. **d** A 40-mm-long sharp bone with two pointed ends.

A 55-year-old man was admitted with retro-sternal pain and odynophagia of 5 days' duration. The patient had ingested a fish bone just before the onset of symptoms. He had a 4-year history of coronary artery disease and myocardial infarction. Computed tomography showed a foreign body penetrating through the esophagus

into the thoracic aorta (● Fig. 1). No signs of mediastinitis were identified. After a multidisciplinary discussion, endoscopic bone removal was planned with simultaneous endovascular stent graft placement. A 34×180-mm stent graft was implanted in the thoracic aorta via the femoral artery (● Fig. 2a). Gastro-

intestinal endoscopy revealed a fish bone lodged in the esophagus at 250 mm from the incisors. Both ends were impacted in the esophagus, with a short segment in the lumen (● Fig. 2b). Despite numerous attempts at removal with a foreign body forceps, neither end could be separated from the esophageal wall because of the narrow space. It was impossible to cut the hard bone endoscopically.

As a last attempt before surgery, a 14Fr Foley catheter was introduced beyond the bone. The catheter was inflated with 15 mL of normal saline, dilating the portion of the esophageal lumen distal to the bone (● Fig. 2c). The bone, which was almost 40 mm long with two pointed ends (● Fig. 2d), was then separated and extracted. A nasojejunal feeding tube was placed. The patient's postoperative recovery was uneventful (● Fig. 3).

Several instruments have been used to retrieve foreign bodies, including forceps, polypectomy snare, and Roth basket. A major disadvantage of these tools is their limited ability to overcome anatomical obstacles [1]. A Foley catheter is usually used under fluoroscopic guidance to remove blunt foreign bodies from children [2]. In our case, we used this simple and primitive type of catheter to dilate the esophagus before bone removal. The use of a Foley catheter is an option for extracting sharp objects with two ends impacted in the esophagus.

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**Competing interests:** None

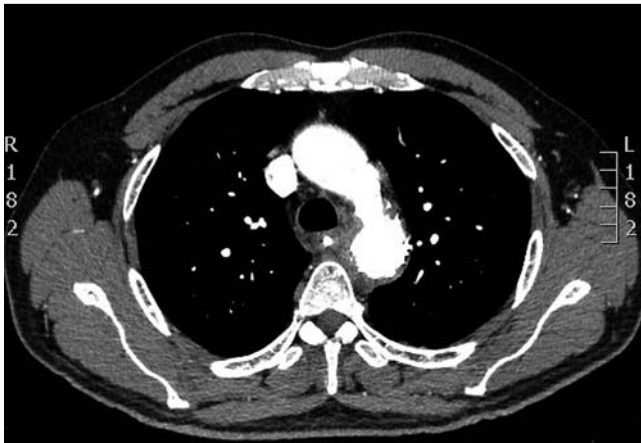
**Xiangjiu Ding<sup>1</sup>, Qingbo Su<sup>1</sup>,  
Ning Zhong<sup>2</sup>, Jianjun Jiang<sup>1</sup>**

<sup>1</sup> Department of Vascular Surgery, Qilu Hospital, Shandong University, Jinan, China

<sup>2</sup> Department of Gastroenterology, Qilu Hospital, Shandong University, Jinan, China

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**Fig. 3** Computed tomographic scan before nasojejun tube removal showing no paraesophageal collection or mediastinitis.

#### **Bibliography**

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#### **Corresponding author**

**Jianjun Jiang, MD**

Department of Vascular Surgery  
Qilu Hospital  
Shandong University  
107, Wenhua Xi Road  
Jinan  
250012, P.R. China  
Fax: +86-531-8692-0598  
[qlxgwkl@163.com](mailto:qlxgwkl@163.com)