Endoscopic extraction of a fish bone with a Foley catheter after endovascular stent graft placement for penetrating aortoesophageal injury

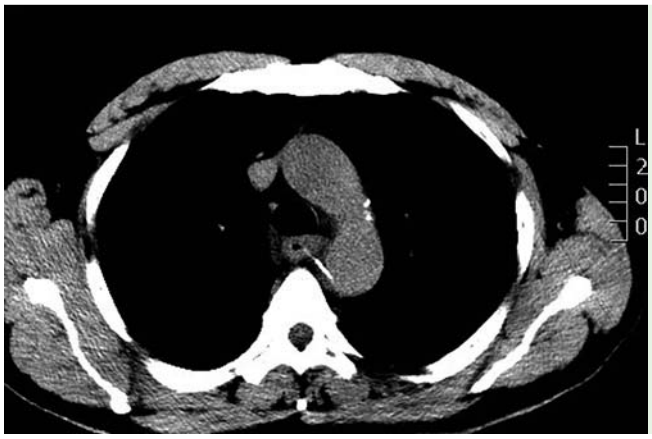

Fig. 1 Computed tomographic scan showing a foreign body penetrating through the esophagus into the thoracic aorta in a 55-year-old man presenting with retrosternal pain and odynophagia.

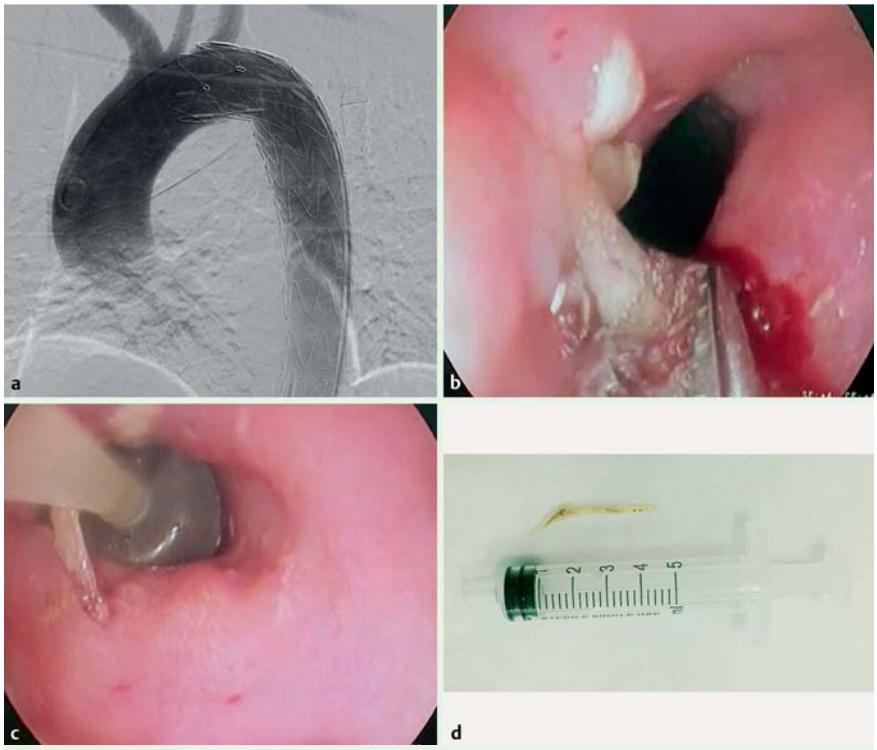

Fig. 2 **a** Intraoperative aortography showing no extravasation of contrast agent after stent graft placement. **b** Both ends of the bone are impacted in the esophagus close to the second narrowing. **c** The catheter balloon dilating the esophageal lumen. **d** A 40-mm-long sharp bone with two pointed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

A 55-year-old man was admitted with retrosternal 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**). Gastrointestinal 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 14 Fr 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

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References

1 *Munoz JC, Habashi S, Corregidor AM* et al. Extraction of hollow gastric foreign bodies by flexible upper endoscopy assisted by a through-the-scope balloon catheter for anchoring. Gastrointest Endosc 2008; 67: 519–521

2 *Bigler FC.* The use of a Foley catheter for removal of blunt foreign bodies from the esophagus. J Thorac Cardiovasc Surg 1966; 51: 759–760

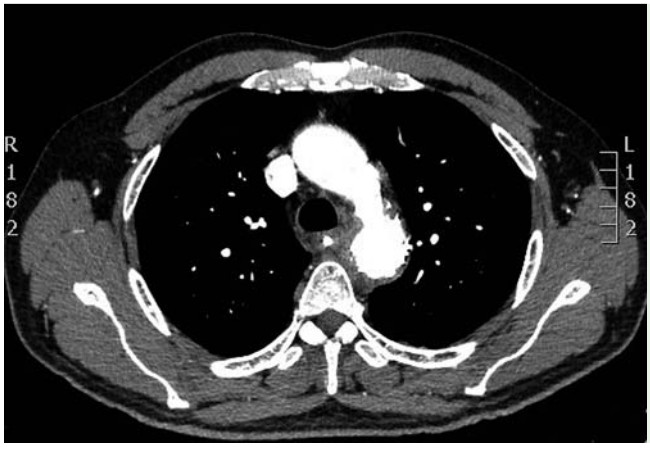

Fig. 3 Computed tomographic scan before nasojejunal tube removal showing no paraesophageal collection or mediastinitis.

Bibliography
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