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

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.

**Competing interests:** None

**References**

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

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