

Endoscopic treatment of a transversely impacted perforating fish bone in the esophagus with pneumomediastinum

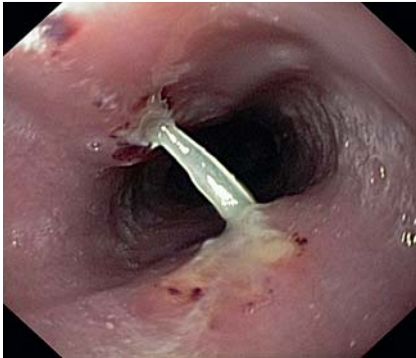


Fig. 1 Impacted fish bone in the proximal esophagus.

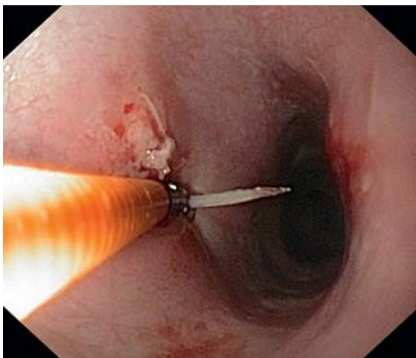


Fig. 2 Endoscopic removal of the impacted fish bone.



Fig. 3 Computed tomography (CT) scan demonstrating extramural locules of gas with metallic clips in situ.

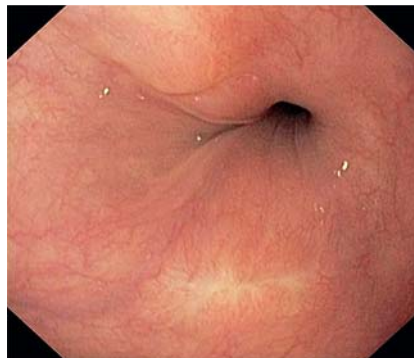


Fig. 4 Healed scar at 6 weeks post-perforation.

Impacted esophageal foreign bodies are a relatively common indication for urgent endoscopy [1]. We report a case, and demonstrate with video, the endoscopic removal of a perforating fish bone and the endoscopic closure of the perforation.

A 52-year-old man presented with odynophagia and retrosternal pain of 9 hours duration following a fish meal. Chest radiographs were normal. Upper endoscopy demonstrated a fish bone impacted transversely at 25 cm (● Fig. 1).

Gas was seen bubbling from both points of entry into the esophageal wall. Manipulation with rat-tooth forceps confirmed that the fish bone was deeply embedded bilaterally. Using biopsy forceps with a

serrated cup (Radial Jaw Force 4, Boston Scientific, Nanterre Cedex, France), the fish bone was carefully removed, initially moving it laterally to disimpact one end. The free end was then advanced distally in the lumen to disimpact the other end (● Fig. 2, ● Video 1).

Subsequently the fish bone was laid down on the esophageal mucosa and the end grasped to enable peroral removal. The two mucosal defects were closed with a

Video 1

Endoscopic removal of a transversely impacted perforating fish bone in the esophagus.

single Resolution Clip (Boston Scientific) to each. A computed tomography scan (● Fig. 3) demonstrated gas in the posterior mediastinum as well as in the esophageal wall.

The patient was managed conservatively with intravenous antibiotics and gut rest. At 6 weeks review (● Fig. 4) the patient was well and asymptomatic.

esophageal perforation due to a foreign body generally has a good prognosis [2] and as such endoscopic management may be the most appropriate first management step. Endoscopic closure of iatrogenic perforation has become an important component of endoscopic mucosal and submucosal resection procedures, as well as in natural orifice transluminal endoscopic surgery (NOTES). Extrapolation of these endoscopic closure techniques to suitable foreign body perforations is a logical and appropriate step [3].

Early endoscopic assessment and therapy is important to prevent complications and avoid the need for surgery [2]. We caution that meticulous assessment of the nature and shape of the foreign body is undertaken prior to any attempt at removal so that the least injurious and most efficient method of retrieval can be established.

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