

Extraction of esophageal foreign body with traction technique via endoscopic retrograde cholangiopancreatography balloon

Adnan Taş¹, Banu Kara¹, Mehmet Suat Yalcin¹, Bünyamin Sarıtaş²

(1) Adana Numune Training and Research Hospital, Gastroenterology Department ; (2) Mersin University Medical Faculty, Gastroenterology Department.

To The Editor,

Esophageal foreign bodies (EFB) are very important and critical entity that can lead to morbidity and mortality. EFB may cause serious complications such as perforation and mediastinitis. Thus, EFB should be treated quickly (1, 2). We report a case with EFB treated with a new technique; traction technique via endoscopic retrograde cholangiopancreatography (ERCP) balloon.

A 60-year-old man admitted to the emergency department, with dysphagia that developed immediately after swallowing a fowl. He had no prior medical history. Physical examination was unremarkable. After endotracheal intubation, emergency endoscopy revealed impacted chick bone in the cervical esophagus just below the upper esophageal sphincter. We tried to remove the foreign body with a snare, then with a foreign body forceps, and we tried to mobilize it with mild pushing pressure but extraction of the foreign body was not achieved. We passed an ERCP balloon through upper esophagus, inflated the balloon, and then pulled it back (Fig. 1). The EFB was extracted successfully. After removal of foreign body, control endoscopy revealed mucosal erosion and ulcer on esophageal wall (Fig. 2).

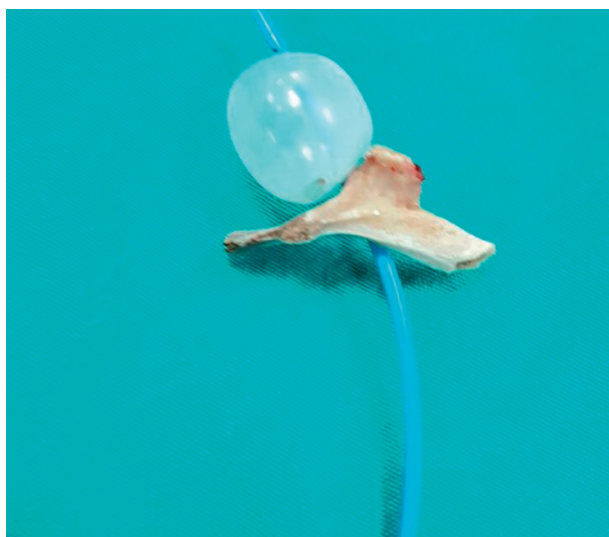


Figure 1. — Inflated balloon and chick bone.

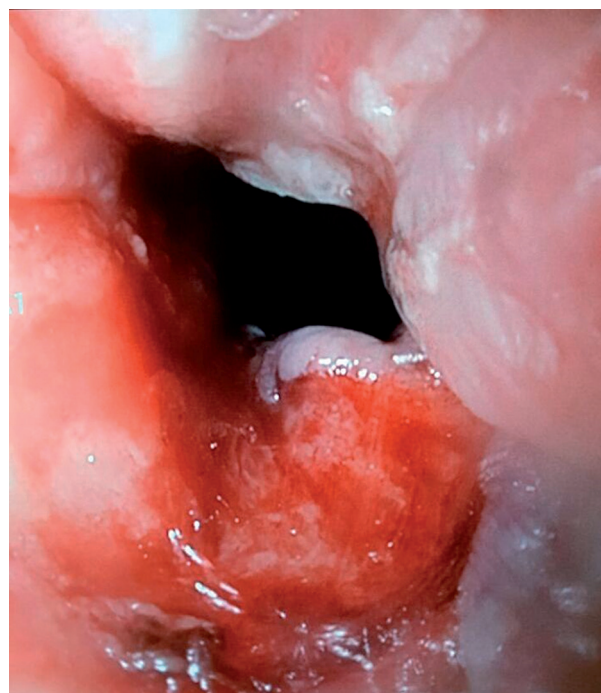


Figure 2 — Mucosal erosion and ulcer on esophageal wall.

The patient was discharged three days after the removal of foreign body.

In 80%-90% cases, EFB pass spontaneously and occurs by accidental swallowing. Nevertheless 10%-20% of patients of foreign body ingestion require endoscopic removal, and approximately 1% need surgery for foreign body extraction (1). Foreign bodies may be impacted in the esophagus at the three physiological constrictions: the cricopharyngeal sphincter (as in our case), aortic arch, and diaphragmatic hiatus (3). In adults, fish bones and other bone fragments are the most common ingested foreign bodies as in our case (4). The esophageal foreign bodies should never be allowed to remain in the esophagus for 24 hours or

Correspondence to : Adnan Taş, Adana Numune Eğitim ve Araştırma Hastanesi Gastroenteroloji Bölümü, 01360 Adana, Turkey. Tel. : +905305405079
E-mail : dradnantas@gmail.com

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more (3). If they aren't removed in a short time, the risk of complications increase. Major complications include perforation, mediastinitis, retropharyngeal abscess and aorto-esophageal fistula. The frequency of major complications increases 14.1 times, if EFB is not removed in 24 hours after impaction (5). Patients with hyper salivation and inability to swallow liquids have a high risk for aspiration and require an endoscopic treatment as in our case. This method may be used in patients with EFB if removal of foreign body with snare or forceps failed. This method may also lead to perforation if traction is forced and endoscopic treatment with clips or surgical intervention may be needed. After removal of the foreign body, radiologic evaluation must be done to exclude perforation.

In conclusion, quick diagnosis and treatment for EFB are important to reduce further harm to the patient and this technique may be safely and successfully performed for removed esophageal foreign bodies.

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