

Successful retrieval of a foreign body embedded in the wall of the piriform sinus by mucosal incision

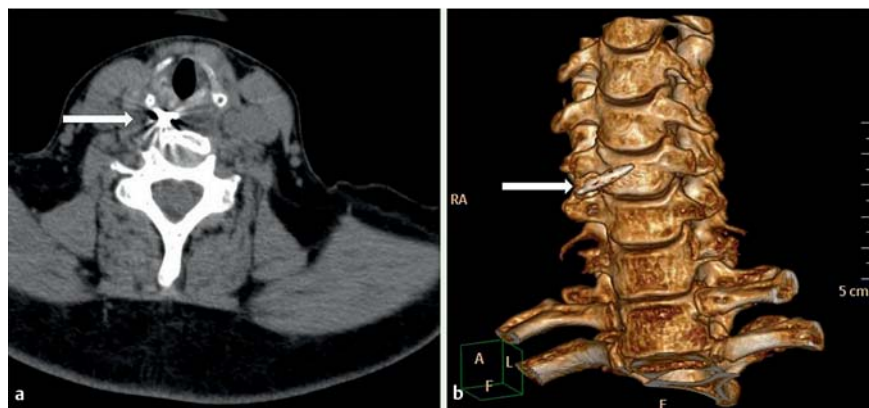


Fig. 1 a Computed tomography shows a metallic foreign body in the right pharyngeal cavity (white arrow) of a 66-year-old woman with symptoms of foreign-body sensation and pharyngeal pain after the accidental ingestion of a foreign body during breakfast. b Three-dimensional imaging shows the foreign body located at the level of the fifth cervical vertebra (white arrow).



Fig. 2 The foreign body is found in the right piriform sinus, with one end embedded in the wall.

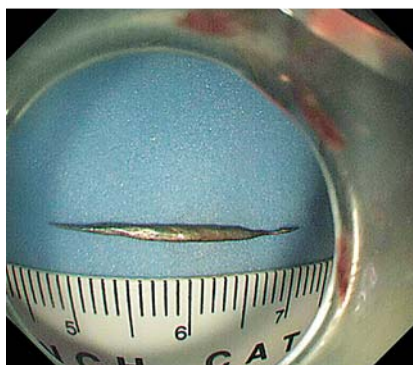
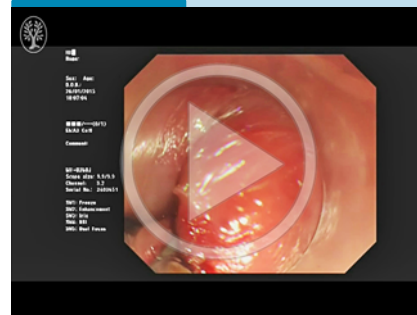


Fig. 3 Both ends of the metallic foreign body are pointed. The length is approximately 2.4 cm.

A 66-year-old woman came to the emergency room with symptoms of foreign-body sensation and pharyngeal pain after the accidental ingestion of a foreign body during breakfast, but she had no idea of what she had swallowed. Computed tomography of the neck, performed to confirm the presence of a foreign body and clarify its relationship with surrounding structures, showed a metallic foreign body in the right pharyngeal cavity (● Fig. 1 a), and synthesized three-dimensional images of the structures of the neck showed a foreign body located at the level of the fifth cervical vertebra (● Fig. 1 b). Esophagogastroscopy along the right piriform sinus revealed a needle-like foreign

body with one end embedded in the wall (● Fig. 2). Multiple attempts to extract the foreign body with conventional methods were unsuccessful. Because of the intolerable symptoms and the possibility of aspiration pneumonia resulting from bleeding, we decided to attempt removal while the patient was intubated and under general anesthesia. After the preparations had been completed and the scope inserted again, we could not find the foreign body, which was embedded in the wall. Surgical treatment is usually inevitable if a foreign body cannot be extracted endoscopically. After a brief discussion with the patient's family and obtaining their

Video 1



After an incision had been made, a foreign-body forceps was used to part the sides of the incision, and the foreign body was found. With a great deal of effort, it was retrieved with the foreign-body forceps, resulting in minor bleeding.

consent, we undertook to extract the foreign body via a mucosal incision at the site of the mucosal injury. After making the incision, we used a foreign-body forceps to part the sides of the incision and found the foreign body. Because of the narrow space of the piriform sinus, the exposed end of the foreign body easily penetrated the mucosa. At this point, we turned the exposed end into the esophageal cavity. With a great deal of effort, we retrieved the foreign body successfully (● Video 1). It proved to be a metal needle approximately 2.4 cm long with two pointed ends (● Fig. 3).

The endoscopic retrieval of a foreign body in the gastrointestinal tract is inexpensive and effective [1–3]. However, if the foreign body is embedded in the wall and cannot be seen on the surface, it will be difficult to extract it endoscopically, and the procedure should be converted to surgery, which may result in higher costs and a long hospital stay [4,5]. To our knowledge, this is the first case of foreign-body retrieval by the unusual method of mucosal incision.

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Competing interests: None

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