EUS-guided pancreatic foreign body removal

Lucio Giovanni Battista Rossini, PhD,[1,2] Natan Kenji Watanabe, MD,[1] Leonardo Neves da Silva Saguia, MD,[1] Mauricio Tadeu Soares da Silva Filho, MD,[2] Vitor Duarte Castro Alves, MD[2]

The ingestion of foreign bodies (FBs) is a common indication for endoscopy. About 80% to 90% of cases resolve with spontaneous passage through the GI tract. In cases that do not present spontaneous resolution, endoscopy (10%-20%) or surgery (1%) may be necessary.[1]

The approach to endoscopic management depends on the type of FB ingested and the patient's clinical condition. Two studies have shown that the purposeful ingestion of FBs increases the need for endoscopic (63%-73% of cases) or surgical intervention (12%-16%).[2,3]

Some endoscopic and radiological findings can lead to a more significant therapeutic challenge. FBs penetrating through the mucosa or even outside the GI tract are, in most cases, managed surgically. However, with the development of new techniques in specialized centers, it is possible to attempt to treat extraluminal FBs using minimally invasive techniques, such as EUS.[4,5]

In this case, we show the use of EUS to treat a pancreatic foreign body.

CLINICAL CASE

A 45-year-old female presented to the emergency department with 16 days of intense epigastric pain associated with nausea, vomiting, and fever. Laboratory tests were notable for hemoglobin 12.3, leukocytes 13.4, C-reactive protein 5.2, and amylase 30. An abdominal CT scan (Video 1, available online at www.videogie.org) showed a FB located at the head/body of the pancreas, measuring 5 cm, without contact with the luminal wall (Fig. 1).

Upper endoscopy showed an orifice in the lesser curvature of the antrum with drainage of purulent secretions (Fig. 2).

An EUS was performed, and the FB was observed inside the pancreatic parenchyma (Fig. 3). Under ultrasound image control, FB forceps were used to remove the object through the fistulous orifice (Figs. 4 and 5).

The FB follows the path of the forceps, insinuating itself into the stomach, making it possible to observe its externalized extremity under endoscopic vision (Figs. 6 and 7).

The removal was completed by traction of the externalized extremity, through the orifice using FB forceps (Fig. 8). Final appearance of the FB is shown in Figure 9.

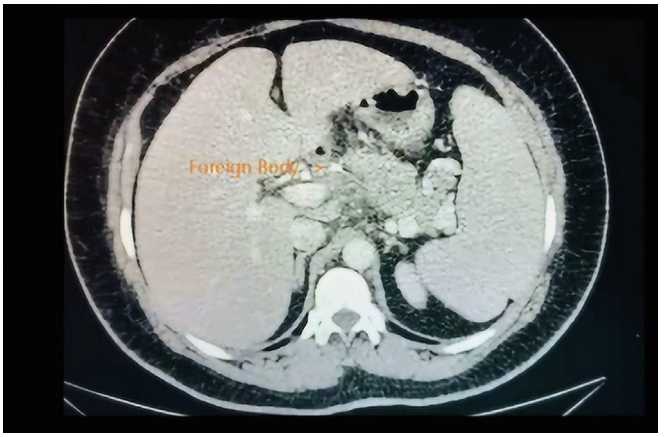

Figure 1. Abdominal CT scan showing a foreign body located at the head/body of the pancreas, measuring 5 cm, without contact with the gastric wall or the duodenum.

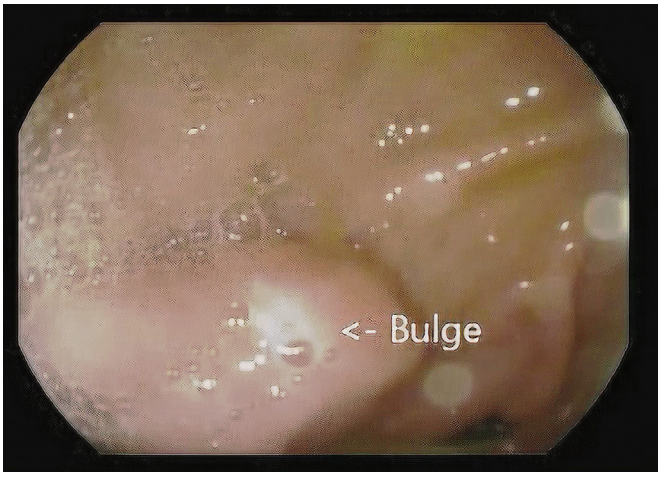

Figure 2. Orifice with drainage of purulent secretion, located in the lesser curvature of the antrum.

Abbreviation: FB, foreign body.

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Endoscopist of Irmandade da Santa Casa de São Paulo (1), Endoscopist of Hospital Sirio Libanês–São Paulo (2).

Figure 3. Foreign body inside the pancreatic parenchyma seen using EUS.

Figure 4. Foreign body forceps passed through the working channel of the echoendoscope and introduced into the foreign body entry hole.

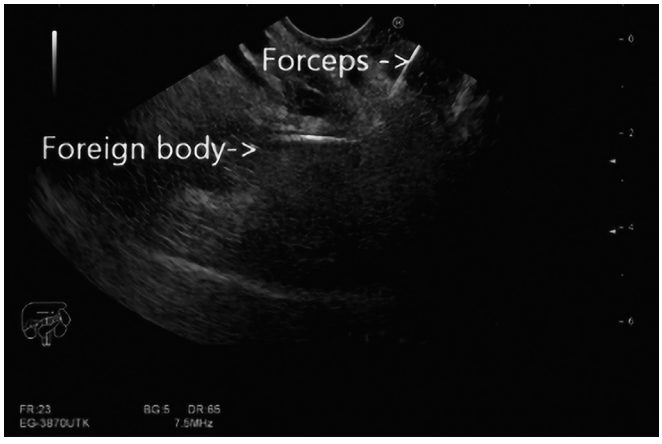

Figure 5. Under ultrasound vision, it is possible to see forceps attached to the foreign body in the fistulous tract.

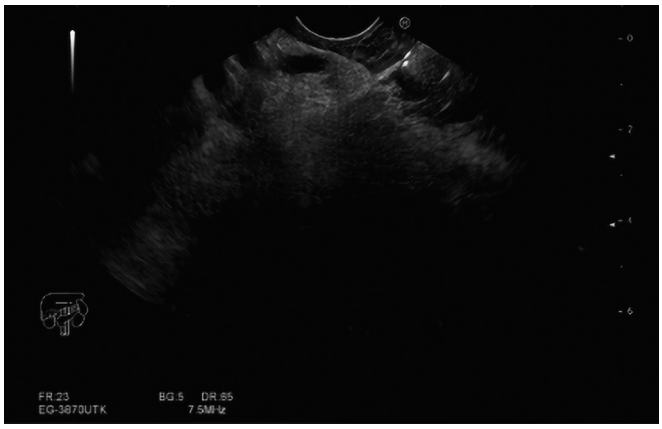

Figure 6. Ultrasonographic image showing foreign body insinuating itself into the stomach after traction with forceps.

Figure 7. End of the foreign body exteriorized through the fistulous orifice, visualized under endoscopic vision.

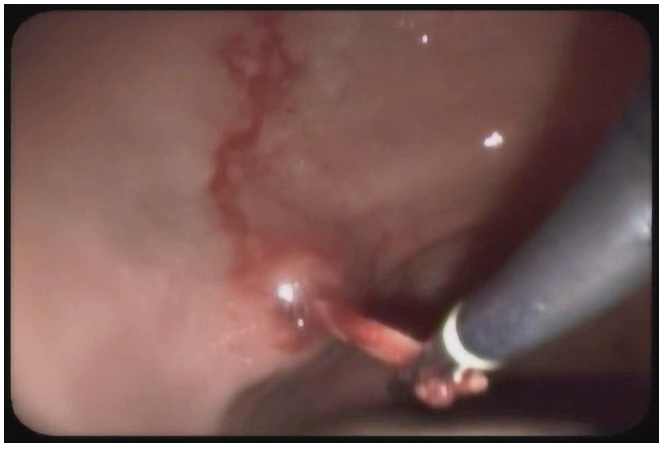

Figure 8. Removal of the foreign body under direct endoscopic vision by traction of the externalized extremity through the orifice.

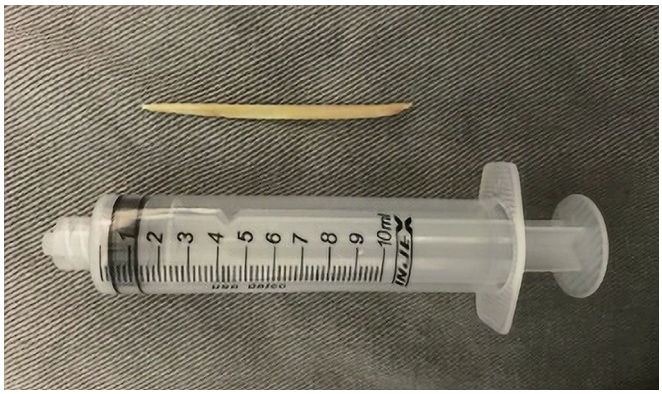

Figure 9. Final appearance of foreign body after its removal.

The patient received antibiotics and was discharged 9 days after the FB removal without fever or abdominal pain.

A repeat CT scan performed 2 weeks after removal of the FB was normal and revealed no abdominal collections or other signs of adverse events.

CONCLUSION

Accidental or deliberate ingestion of FBs is a frequent cause of indications for endoscopic examinations. Penetration of the FB through the GI tract mucosa is uncommon and requires more invasive treatment.

EUS can help locate ingested objects that have passed through the organ wall. In some cases, EUS can also be presented as an alternative to their removal, avoiding more invasive procedures and higher morbidity and mortality.

DISCLOSURE

The authors disclosed no financial relationships relevant to this publication.

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