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Case Report

Hematemesis in a young patient: When the cause is ingested: A case report ☆☆☆

Benayad Aourarh, MD^{a,*}, Lina Belkouchi, MD^b, Rachida Saouab, MD^b, Aziz Aourarh, MD^a, Omar Belkouchi, MD^c

^aDepartment of Gastroenterology I, Mohammed V Military Hospital, Mohammed V University, Faculty of medicine and pharmacy of Rabat, Rabat, Morocco

^bDepartment of Radiology, Mohammed V Military Hospital, Mohammed V University, Faculty of medicine and pharmacy, Rabat, Morocco

^cDepartment of Surgery, Mohammed V Military Hospital, Mohammed V University, Faculty of medicine and pharmacy, Rabat, Morocco

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ABSTRACT

Foreign bodies may be ingested accidentally or intentionally. Generally, they pass through the digestive tract without causing complications unless they become lodged. Patients often present with nonspecific clinical symptoms, and diagnosis is frequently delayed because they do not recall ingesting anything.

We report the case of a 20-year-old man who was admitted to the emergency room for acute moderate hematemesis. The patient had no significant medical history. An urgent, nonsedated upper gastrointestinal (GI) endoscopy was performed, which revealed bleeding but no foreign objects. However, an abdominal CT scan identified a linear calcified object in the antrum, which was later confirmed to be a chicken bone upon endoscopic extraction.

Ingested foreign bodies typically pass through the digestive tract without incident. However, long, sharp, and thin objects can remain in the gastrointestinal tract for 7–10 days and may become lodged in areas of physiological narrowing. This can lead to complications such as bowel obstruction, perforation, or bleeding.

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Abbreviations: CT, Computed Tomography; ER, emergency room; FB, Foreign Body; GI, Gastrointestinal; IFB, Ingested foreign bodies; US, Ultrasound.

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* Corresponding author.

E-mail address: benayad.aourarh@gmail.com (B. Aourarh).

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Introduction

Ingested foreign bodies are generally excreted without complications. The most common types are fish bones or chicken bones, which may get lodged in the gastrointestinal tract for 7–10 days, especially if they are long and sharp, potentially causing complications. Clinical symptoms are nonspecific, and diagnosis is often delayed because patients do not recall ingesting the object.

We report the case of a 20-year-old man admitted to the emergency room for acute moderate hematemesis. The patient had no significant medical history. He underwent an urgent, nonsedated upper gastrointestinal (GI) endoscopy that revealed bleeding but no foreign objects. An abdominal CT scan revealed the presence of a linear calcified object in the antrum, which was later confirmed to be a chicken bone upon endoscopic extraction.

Case description

A 21-year-old man was admitted to the emergency department with acute moderate hematemesis that had been evolving for 1 day. He had no significant medical history and no other associated symptoms were noted. Clinical examination revealed no abdominal pain or palpable mass. The patient was not pale, and his vital signs were normal. Biological tests showed only a hemoglobin level of 11 g/dL. An urgent, nonsedated upper gastrointestinal (GI) endoscopy was performed, revealing active bleeding with no visible cause. An abdominal CT scan revealed the presence of a linear, calcified, and sharp foreign object lodged in the antrum, causing stomach lining erosion (Fig. 1). The patient underwent an extraction of the object via upper GI endoscopy, which revealed it to be a chicken bone. The patient did not recall eating it and there-

fore did not inform the clinicians. Hematemesis did not recur, and the patient was asymptomatic after 3 days of follow-up.

Discussion

Ingested foreign bodies (IFBs) generally pass through the gastrointestinal tract and are excreted in the stool within 1 week after ingestion without complications [1].

Most often, the ingestion of foreign bodies is accidental; however, it can also be voluntary in children, prisoners, alcoholics, and individuals with mental disabilities [2,3].

These foreign bodies are commonly of food origin, including fish bones, chicken bones, toothpicks, or dentures in elderly people. Carpenters and dressmakers may also accidentally swallow sharp and pointy objects like needles [4].

Sometimes these foreign bodies can cause complications, especially if the objects are thin, long, and sharp. They can become lodged in areas of physiological narrowing or acute angulation, such as the esophagus, gastric antrum, duodenal loop, duodenojejunal junction, ileocecal region, or rectosigmoid junction, which are at higher risk for perforation [2,3,5]. These complications include bowel obstruction, perforation and peritonitis, bleeding, migration to another organ or vessel, abscess formation, and fistula formation (e.g., enterovesical) [1]. Less than 1% of IFBs will cause gastrointestinal tract perforation, with fish bones being the most common cause [5,6].

The presence of a bowel condition such as diverticulitis, inflammatory disease, bowel tumor, or abdominal wall hernias can increase the risk of perforation, which may occur up to 10 days after ingestion [1–3].

Clinical symptoms are often misleading and nonspecific, leading to delayed diagnosis because patients do not recall ingesting the foreign body. Symptoms can range from abdominal pain, nausea, vomiting, fever, and melena to acute

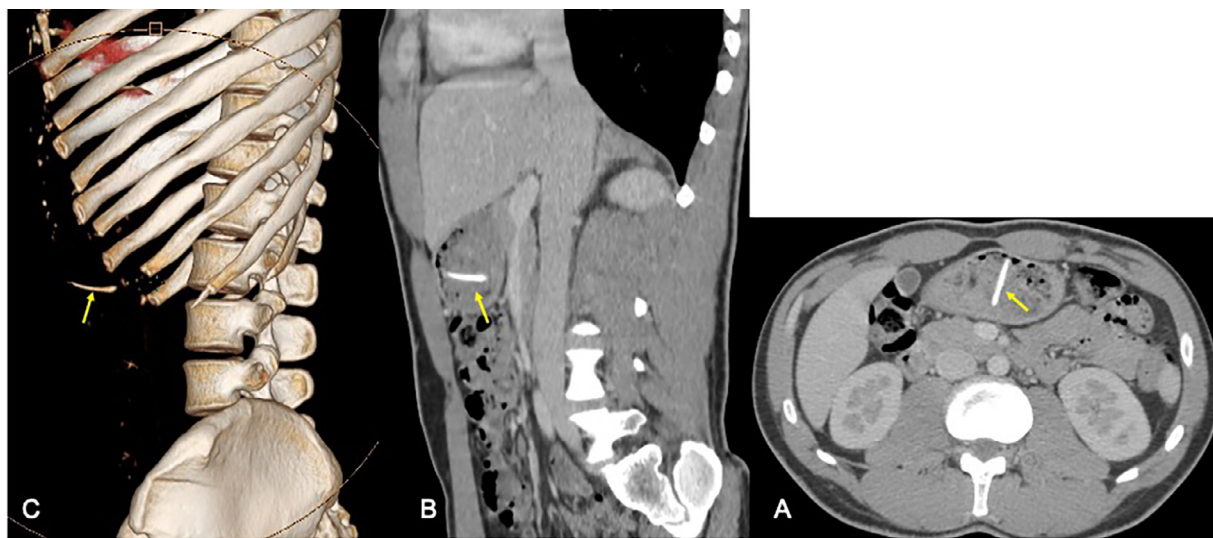


Fig. 1 – CT scan of the abdomen in portal phase, with axial (A), sagittal (B) and VRT (C) reconstructions, showing a linear calcified high-density object in the antrum (yellow arrows). Note in the VRT image the sharp edge of the bone by the front stomach lining, which was causing its erosion and bleeding.

surgical abdomen in cases of peritonitis, which can be mistaken for appendicitis, diverticulitis, or a perforated peptic ulcer [2,5].

Some patients may even present with anal pain, anal fistula, or abscess due to the foreign object not passing through the anal sphincter [2].

Imaging methods such as ultrasound (US) or CT scan are useful for diagnosis [7,8]. X-rays do not typically show foreign bodies like fish or chicken bones, as they can only detect objects made of high-density bone or metal [9]. Although US may not be very helpful, it can detect the presence of abdominal fluid or an abscess. The CT scan can show the foreign body with its precise localization and signs of complications. Fish and chicken bones appear as linear calcified lesions, which may be surrounded by fat inflammation. In cases of perforation, pneumoperitoneum and abdominal fluid can be found. In bowel obstruction, gas-fluid levels are seen. Abscess collection or bowel wall thickening can also be identified [2,3].

In some cases, the foreign body is not seen, and the diagnosis is made either during surgery or through pathological examination of the specimen [2]. IFBs are eventually excreted, so conservative treatment is preferred. In cases of long sharp objects with clinical and radiological findings of complications, surgical or endoscopic treatment is required. Endoscopy is necessary in 10-20% of cases, and surgical treatment is required in 1% of cases [2]. Endoscopy can be used for both diagnosis and extraction of the foreign body using endoscopic forceps [5]. While perforation used to require a surgical procedure through laparotomy or laparoscopy, it can now be treated through endoscopy using hemoclips. This minimally invasive technique allows for faster recovery with no postsurgery complications. First performed in 1993 by Binmoeller [10], it is now a considered approach, although it cannot be done if peritonitis, bowel obstruction, severe inflammation, or FB migration to another organ or vessel occurs. Surgery is then required for removal. The surgical intervention depends on the location of the foreign body, and the perforation may require a simple suture or resection of a bowel segment, abscess drainage, peritoneal lavage, etc [1,2,4].

Conclusion

Ingested foreign bodies are common, and clinical diagnosis is often delayed due to vague symptoms, making it a

challenging issue. Imaging is frequently required as it may identify the foreign body and, more importantly, reveal any complications. Depending on the shape and size of the foreign body, the patient's condition, and the type of complication, treatment can be conservative, endoscopic, or surgical.

Patient consent

Written, informed consent of the patient was obtained for publication of this case report.

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