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Clinical Case Report: Prepyloric Abscess Secondary to Chicken Bone Ingestion

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Abstract **Case Report**

The accidental ingestion of foreign bodies is a common occurrence but can sometimes lead to serious complications, such as gastrointestinal perforation or abscess formation. We report the case of a patient who presented with diffuse atypical abdominal pain, accompanied by late postprandial vomiting, revealing the presence of a foreign body transfixing the posterosuperior pyloric wall. This condition led to the formation of an abscess in this region, requiring surgical intervention at Mohammed VI University Hospital in Marrakesh. This case highlights the potential risks associated with the ingestion of foreign bodies and underscores the importance of prompt and appropriate management of such complications to avoid serious consequences.

Keywords: foreign body, prepyloric abscess, abdominal CT, FOGD, surgery.

INTRODUCTION

The ingestion of foreign bodies (FB) can cause multiple complications that can sometimes be serious. It most commonly occurs accidentally in children and sometimes patients with underlying mental conditions. In adults, it is caused by poor eating habits such as eating too quickly, coughing fits or arguments during meals [1]. The ingestion of foreign bodies can even be intentional. The nature of foreign bodies inadvertently ingested into the digestive tract varies widely. A foreign body can perforate the digestive tract and cause peritonitis or an abscess, and it can even migrate out of the digestive tract, leading to an unexpected clinical picture [1].

We report a case of a patient who presented to the emergency department with diffuse atypical abdominal pain and late postprandial vomiting, revealing the presence of a foreign body transfixing the posterosuperior pyloric wall, an abscess collection site. This case was treated surgically at Mohammed VI University Hospital Center in Marrakech.

CASE REPORT

A 74-year-old man with a history of accidental ingestion of a chicken bone two months ago presented to the emergency department with unusual diffuse abdominal pain associated with postprandial vomiting, with concurrent fatigue and loss of appetite. On physical examination, the patient was conscious, stable hemodynamically and in terms of respiration, and presenting epigastric tenderness without abdominal guarding or rigidity. The rest of the examination was normal. Blood tests revealed hyperleukocytosis at 16,600/mm3 with neutrophil predominance at 13,612/mm3, and high C-reactive protein at 54.2 mg/l. Hemoglobin was normal at 14 g/dL, and ionogram and renal function results were within normal limits (Na+:142 mmol/L, K+:4.3 mmol/L, urea: 0.3 g/L, creatinine: 10 µmol/L).

In light of this clinical picture, an abdominal computed tomography (CT) scan was performed and revealed the presence of a linear foreign body measuring 38 mm in length, transfixing the posterosuperior pyloric wall which was thickened and associated with an abscessed collection measuring 28x20 mm, with no signs of pneumoperitoneum (Figure 1).

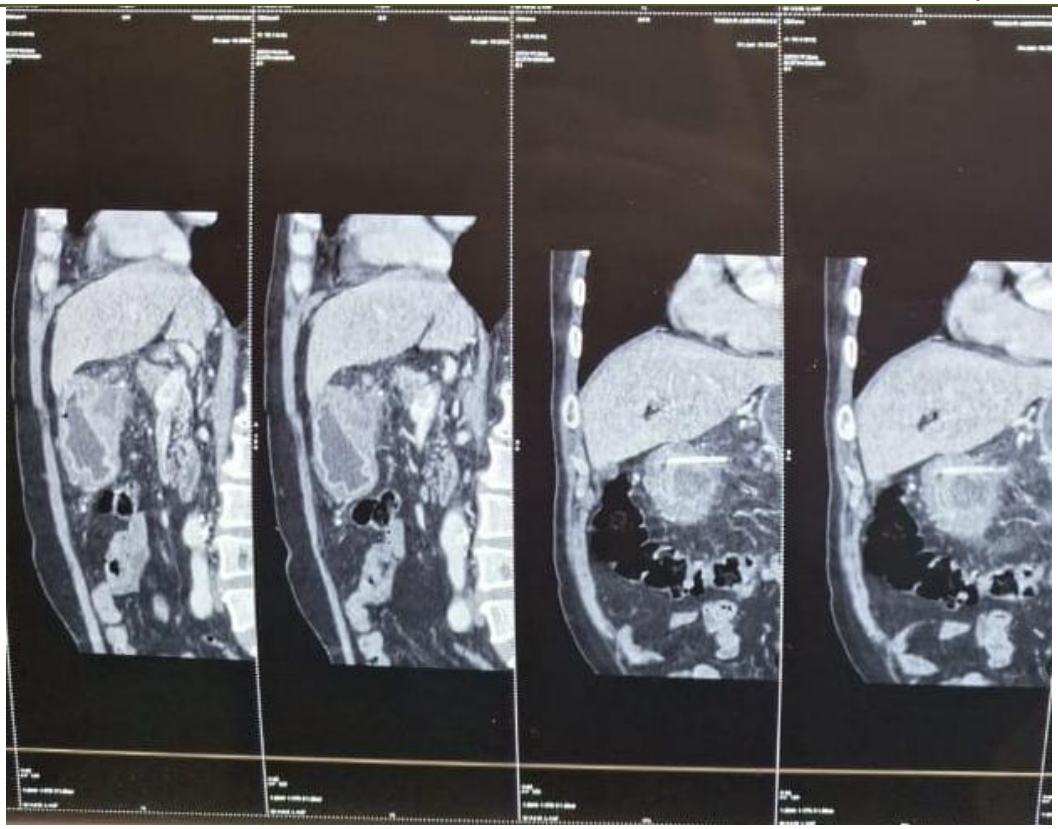

Figure 1: Cross-sectional imaging of abdominal CT reveals a linear foreign body 38 mm long, spontaneously hyperdense, transfixing the posterosuperior pyloric wall which is thickened and the site of an abscessed collection measuring 28 x 20 mm

Esogastroduodenal fibroscopy showed the presence of an irregular edematous mass measuring approximately 3 cm in major axis with purulent discharge in the pre-pyloric area. (Figure 2)

Figure 2: Irregular edematous prepyloric mass measuring 3 cm in major axis with pus discharge

The patient underwent surgery, and during the surgical exploration, inflammatory infiltration was observed in the anterior surface of the pancreatic head and the posterior surface of the antro-pyloric region. Anterior gastrostomy revealed the presence of a central collection of an inflammatory infiltrate in the posterior wall of the pylorus. The remainder of the surgical procedure showed no particular abnormalities. The treatment consisted in draining the collection by opening the gastrostomy, closing it, performing drainage with a Delbet blade in the rear cavity of the omentum, and placing a sub-hepatic Redon drain. The postoperative course was uneventful.

DISCUSSION

Foreign body ingestion and food bolus impaction are frequent events, especially in children. Most ingested foreign bodies will pass spontaneously evacuated naturally, with around 80% likely passing through without the need for intervention [2,3].

However, recent studies indicate higher rates of endoscopic intervention (63-76%) and surgery (12-16%) in cases of intentional ingestion [2,3]. Mortality rates remain very low, with few deaths reported in large studies including adults (no deaths in 852 cases) and children (one death in 2,206 cases) [4,5].

The majority of foreign body ingestions occur in children, peaking between 6 months and 6 years of age [1,5]. In adults, this risk is higher in people with psychiatric disorders, mental retardation, alcohol intoxication and in prisoners [2,3,6]. Edentulous adults are also more likely to ingest foreign bodies, including food or their dentures [7].

Complications such as impaction, perforation or obstruction often occur at curvatures or structures of the digestive tract [19]. Foreign bodies, including sharp objects, usually pass without issue once they enter the esophagus [1-3]. However, sharp objects such as fish bones increase the risk of perforation [1-3].

The localization of the ingested object is not always correlated with the area of pain. In the case presented, the patient had mentioned ingesting a chicken bone two months previously, resulting in diffuse abdominal pain and delayed vomiting after meals.

X-rays can identify most foreign bodies, but some materials like fish or chicken bones, wood, plastic, glass, and thin metallic objects are not visible. Endoscopy is often necessary to confirm the diagnosis [1,8]. In our case, an abdominal CT scan was performed, revealing a foreign body penetrating the pyloric wall with an associated abscess collection.

Indications for endoscopy depend on the patient's age, clinical condition, the size, shape and location of the object, and the time since ingestion. Esophageal objects should be removed within 24 hours to avoid complications [5,9]. Asymptomatic gastric objects can sometimes be monitored, but endoscopic removal is recommended for large or sharp foreign bodies [5,9,10].

In the event of a foreign body incarceration inducing an inflammatory reaction with the formation of an abscess collection, as in our case, surgical intervention is necessary. In this case, the surgical procedure was carried out without complications, but the patient was lost to follow-up after the intervention.

CONCLUSION

Pyloric abscesses induced by a foreign body are rare but serious complications of accidental ingestion. Early diagnosis and prompt management are essential to avoid severe complications such as gastric perforation or septicemia. A multidisciplinary approach involving gastroenterologists, surgeons, and radiologists is often necessary to ensure optimal management of these cases.

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