

Atypical Foreign Body Ingestion for Suicide

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Abstract

Case Report

The ingestion of foreign bodies can cause severe health issues such as bleeding, perforations, and obstructions. The majority of gastrointestinal foreign bodies discovered in adults result from intentional ingestion, often found in patients with preexisting psychiatric conditions. In the literature, there are few similar cases of voluntary ingestion of a fork that has passed through the esophagus to the duodenum. We present a case of a 33-year-old man with a psychiatric disorder who presented to the emergency room five months after ingesting a fork, which was discovered incidentally during imaging evaluations. He had complained of epigastric pain lasting for a month, leading to the search for a cause. An abdominopelvic CT scan revealed a linear structure in the D2 and D3 segments, creating a metallic artifact, obstructing wall exploration, and measuring 9x136 mm. The patient underwent surgical extraction via laparotomy under general anesthesia, and the postoperative course was uneventful.

Keywords: Foreign Body Ingestion, Fork, Psychiatric Disorder, Duodenum.

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INTRODUCTION

The majority of gastrointestinal foreign bodies found in adults are the result of intentional ingestion, often among patients with preexisting psychiatric disorders, substance abuse issues, or individuals seeking secondary gain [1]. Most foreign bodies pass without complications in 80 to 90% of cases (2-5). However, they can cause serious problems such as obstruction, gastrointestinal tract bleeding, or gastrointestinal perforation, with high morbidity and mortality rates [6, 7]. Unfortunately, diagnosis is rarely made preoperatively, as most patients do not remember or do not report ingesting a foreign body [8-4]. Foreign bodies lodged in areas of anatomical narrowing may require endoscopic or surgical intervention, but the majority of foreign bodies that pass through the esophagus will exit the gastrointestinal tract without incident [9]. We report an unusual case of voluntary ingestion of a metallic fork, dating back five months, in a 33-year-old patient with a psychiatric disorder.

CASE PRESENTATION

This is a 33-year-old male patient with a psychiatric history who was admitted to the emergency room for the ingestion of a fork, which had occurred 5 months prior. The fork was incidentally discovered during a chest X-ray (Fig. 1), performed as part of an

investigation for epigastric pain that had persisted for a month.

At the onset of symptoms, one month earlier, the patient had initially been treated at a medical center for epigastric pain. Due to the persistence of the pain, he sought care at a clinic where an abdominal ultrasound was performed but showed no abnormalities. During further investigations, a radio-opaque foreign body was incidentally discovered on the chest X-ray in the abdominal projection area.

Upon further questioning, the patient admitted to having swallowed the fork in a suicide attempt five months prior. At the time of his admission to the emergency room, the patient was conscious, hemodynamically and respiratorily stable, with a soft abdomen and tenderness in the epigastric region. The biological workup revealed a hemoglobin level of 14.8 g/dl, platelets at 337,000, white blood cells at 29,320, and a C-reactive protein level of 266.79. Electrolytes were within normal limits.

Additionally, an abdominopelvic CT scan (Fig. 2, 3, 4) showed a metallic foreign body located in the duodenum, with no signs of pneumoperitoneum or peritoneal effusion.

Under general anesthesia, a laparotomy was performed. Intraoperatively, a foreign body (the fork) was found extending between the superior and inferior genu of the duodenum, causing a 2 cm duodenal perforation sealed by the liver. There was no peritoneal effusion, collection, or false membranes present. Extraction through the antral fistula revealed a metallic fork, missing two prongs, measuring approximately 12 cm (Fig. 5). An antrectomy, including the perforation site, was performed, followed by closure of the duodenal stump.

Two anastomoses were performed: a side-to-end gastrojejunostomy in a Roux-en-Y configuration, and a side-to-end jejunojunctionostomy. A peritoneal washout was then carried out. Drains were placed retro-anastomically with a Delbet blade, sub-hepatically with a Salem tube, and sub-phrenically and in the Douglas pouch with two Salem tubes, followed by layered closure.

The postoperative course was uneventful, and the drains were removed on the third day. A psychiatric evaluation was requested, and psychiatric follow-up was arranged.

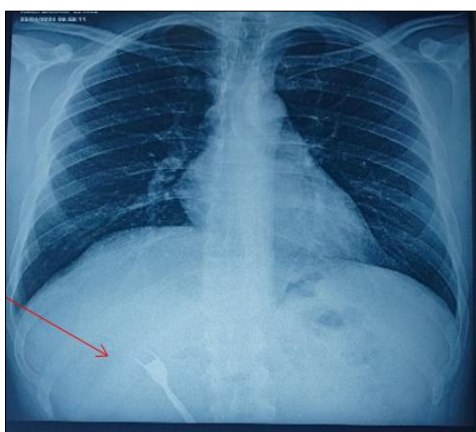


Fig. 1: Metallic opacity (fork) projecting at the level of the right flank, indicated by a red arrow

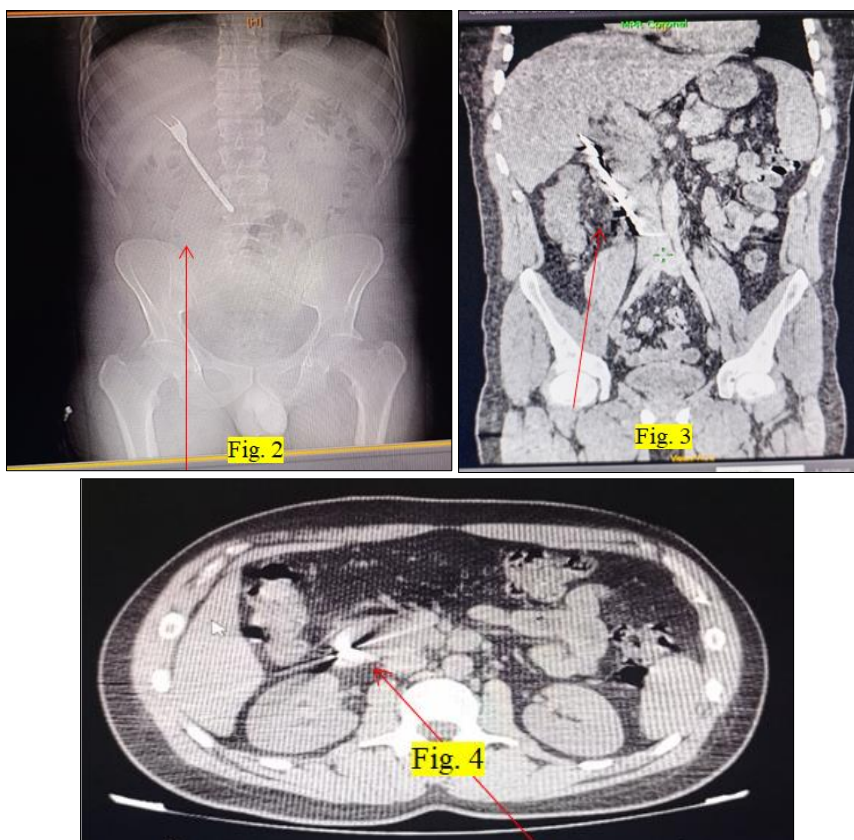


Fig. 2, Fig. 3, Fig. 4: CT scan images on different sections showing the fork (Fig. 2) and a linear structure (Fig. 3 and Fig. 4) at the D2 and D3 levels, generating a metallic artifact, obstructing wall exploration, and measuring 9x136 mm.



Fig. 5: Postoperative image showing the extracted fork.

DISCUSSION

The ingestion of foreign bodies is a common problem worldwide, with an estimated incidence of 120 cases per million. This phenomenon is responsible for approximately 1,500 deaths per year, with toddlers being the most frequently affected. Although it is rare in conscious individuals and usually accidental, it is a relatively common issue among psychiatric patients. While it is not uncommon, foreign bodies are typically expelled naturally within a week [4]. However, gastrointestinal tract perforation remains a feared complication, affecting nearly 1% of cases. When the ingested object is sharp, the perforation rate can reach 15% to 30% [4, 5].

Additionally, foreign body ingestion can occur as part of a suicide attempt [11]. Therefore, the medical history must be thoroughly investigated to gather all relevant information. Intentional ingestion of foreign bodies is more common in psychiatric patients and prisoners, with the most frequently ingested objects being toothbrushes, razor blades, and pens [1-12].

Over the past decade, according to data from the Centers for Disease Control [13], similar cases of cutlery ingestion have been documented in adults, although cases of whole fork ingestion are rare. The time between ingestion and the onset of symptoms varies widely, from a few minutes to several years, depending on the patient's age, and the size and shape of the foreign body [13].

According to a case study by Palta *et al.*, about 64% of 262 patients exhibited their first symptoms within 48 hours of ingestion, with epigastric pain being the most common symptom, followed by vomiting [12]. Perforations have been reported in all segments of the gastrointestinal tract, though they tend to occur at angulated sites within the digestive tube [5-14]. The stomach was the most common location for foreign bodies, followed by the duodenum [12].

The management of an ingested foreign body depends on the patient symptoms and the type and the location of the ingested object.

Surgery is the treatment of choice to repair any perforation caused by foreign body, upon development of complications such as abscess, fistula, and ileus. Surgical treatment of small intestine perforations require surgical repair or segmental resection. Depending on the size of the perforation, the degree of contamination, the underlying condition of the bowel and the judgement of the surgeon, an early intervention should be taken to prevent further morbidity and mortality. Surgical treatment remains the primary therapeutic approach for intra-duodenal foreign bodies, as evidenced by the literature [15-17].

CONCLUSION

While cases of metallic foreign body ingestion are not rare, the ingestion of cutlery, specifically a fork, passing through the esophagus into the duodenum after five months is rarely reported. This case highlights the need for suspicion of foreign body ingestion in individuals with psychiatric disorders presenting with epigastric pain during differential diagnoses. Early suspicion can aid in avoiding missed diagnoses, particularly since symptoms are often vague and the time to the onset of symptoms can vary depending on several factors.

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