

## Case Report

# Small bowel perforation secondary to unusual foreign body - a case report

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### ABSTRACT

Ingestion of foreign body is a common clinical entity encountered in clinical practice. It can be accidental as seen in children or can be intentional in psychiatric patients. However most of the foreign bodies pass without causing any complications. Only about 1% is known to cause complications particularly gastrointestinal perforations. Coins, toy parts, spoons, spring coils, nails, fish bone batteries and dentures are commonly ingested items. Endoscopy can be tried in cases of ingested foreign bodies for their removal which are present in stomach or duodenum. However cases of hollow viscus obstruction and perforation require exploratory laparotomy. In this report we present an unusual case who presented to emergency room with acute abdomen secondary to foreign body ingestion causing intestinal perforation that underwent a laparotomy for removal of foreign body.

Keywords: Foreign body, Peritonitis

### INTRODUCTION

Ingestion of foreign body is a common clinical entity encountered in clinical practice. It can be accidental as seen in children or can be intentional in psychiatric patients. However most of the foreign bodies pass without causing any complications. Only about 1% are known to cause complications particularly gastrointestinal perforations.<sup>1</sup> Coins, toy parts, spoons, spring coils, nails, fish bone batteries and dentures are commonly ingested items.<sup>2,3</sup>

Endoscopy can be tried in cases of ingested foreign bodies for their removal which are present in stomach or duodenum. However cases of hollow viscus obstruction and perforation require exploratory laparotomy.

In this report we present an unusual case who presented to emergency room with acute abdomen secondary to foreign body ingestion causing intestinal perforation who underwent a laparotomy for removal of foreign body.

### CASE REPORT

A 28 year male presented to emergency room with generalized pain in abdomen, repeated episode of vomiting, inability to pass motion or flatus since 2 days. Patient was known case of psychiatric disorder and had repeated episodes of behavioural disturbances in spite of being on antipsychiatry medications. Patient also had history of being operated for appendicular perforation 7 years back.

On presentation the patient had decreased level of consciousness with a pulse rate of 120 per minute and blood pressure of 80/60 mm of hg. On examination abdomen was distended and generalized guarding and rigidity was present over abdomen. After initial resuscitation patient was shifted for radiological investigations. Plain X ray abdomen revealed Pneumo-peritoneum with presence of a radiopaque material of the shape of a dinner spoon, the history of ingestion of which was later revealed by patient on direct questioning.

Patient gave history ingestion of metallic spoon 8 days back. Ultrasound was suggestive of collection of moderate amount of free fluid in abdomen. CT abdomen revealed a linear image consistent with foreign body with features of penetration through intestinal wall causing perforation. Lab investigations were done which revealed raised TLC count of 16000/mm<sup>3</sup> and HB 12gm% and a normal renal function test and liver function test.



**Figure 1: Metal spoon perforating and protruding through small intestine.**



**Figure 2: Plain X-ray abdomen AP view showing gas under diaphragm and metallic foreign body.**

Considering the diagnosis decision was taken for emergency laparotomy. Thorough examination revealed handle of metallic spoon penetrating the jejunum about 170 cm from Duodeno-jejunal junction. The edge of perforation was extended to extract the spoon of about 10 cm length from bowel and 2 cm maximum diameter. The area of perforation was sutured with primary repair. Post operatively patient was put on antibiotic and necessary medications. Postoperatively patient had no complications and was discharged on 8<sup>th</sup> day on oral antibiotics and antipsychiatry medications.



**Figure 3: X-ray abdomen lateral view showing gas under diaphragm and metallic foreign body.**

## DISCUSSION

Ingestion of foreign body is common entity encountered in clinical practice specially encountered in children, geriatric population and psychiatric patients due to hallucination.<sup>4,5</sup>

The ingested foreign bodies are generally passed through the bowel without causing any complications. However this depends on the size and structure of ingested object as well. Objects smaller than 6cm and thinner than 2cm were found to have complications very rarely.<sup>3</sup>

There have been reports of ingested food items retained in body for long time without yielding any complications or very delayed complications. Our patient had history of ingestion of metallic spoon which was about 10 cm in length and was a rigid structure by nature. Also the patient had previous surgical history for appendicular perforation leading to adhesions. These factors predisposed the patient to have higher chances of complications as compared to other patients. The common sites of perforation are the Duodeno jejunal junction, small bowel diverticuli, sigmoid colon. The time of occurrence of perforation after ingestion of foreign body is on an average 10.4 days.<sup>6</sup>

Exploratory laparotomy forms the basis of treatment of complications of foreign body ingestion. Impacted foreign body can be best removed through endoscopy. Concurrent treatment of psychiatric disorder is must to avoid such incidents in future.

### CONCLUSION

Mentally retarded patients should be kept in close surveillance for their tendency to ingest foreign bodies. Appropriate surgical procedure can help tackle complications due to foreign body ingestion.

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