IMPACTED METALLIC FOREIGN BODY IN COLON FOLLOWING INGESTION: REPORT OF A CASE.

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ABSTRACT

INTRODUCTION: Foreign body ingestion is a common clinical problem in early childhood. However, it may occur even in adults, unknowingly especially in depressed patients. Most ingested foreign bodies entering the stomach pass through the gastrointestinal tract uneventfully. Management protocol may vary depending on patient type.

PRESENTATION OF CASE: A 19-year-old male who presented with a history of sudden abdominal pain and no abdominal distension following ingestion of door bolt .He was pale. His pulse rate was 76 per minute and blood pressure was 120/60 mmHg. Plain radiograph done on first day and second showed impacted L-shaped metallic object at the right iliac fossa region.

He was resuscitated and had exploratory laparotomy on second day after presentation. The findings were normal peritoneal fluid, impacted door bolt at mid portion of transverse colon. He had enterostomy and foreign body removal, analgesics and antibiotics. His outpatient follow-up has been uneventful.

DISCUSSION: This is to report a case metallic foreign body ingestion with colonic impaction in 19 year old patient with the hope of increasing awareness especially in patients with depressive episodes.

CONCLUSION: Impacted metallic foreign body in colon following ingestion, though rare but can occur. Careful resuscitation and skillful surgical intervention will improve outcome.

KEYWORDS: Impacted Metallic Foreign body, door bolt, Depression.

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INTRODUCTION

Foreign body ingestion is a common clinical problem in early childhood. However, it may occur even in adults, unknowingly and depressed patients are not left out of this condition. Most ingested foreign bodies entering the stomach pass through the gastrointestinal tract uneventfully. Foreign body ingestion is a common problem in everyday emergency practice. Foreign body ingestion may present without symptoms[1], and in some cases results in perforation with gastrointestinal bleeding or an obstruction[1].Rarely, an abscess or a fistula occurs. It has been reported to mimic other diseases (renal stone or irritable bowel syndrome)[1]; however, there are paucity literature data concerning large foreign body impaction in transverse colon in depressed patients.

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The index case report of an ingested foreign body is rare. Most reported cases impact in rectum or sigmoid. To our knowledge, this is the first description of a swallowed object causing gastrointestinal symptoms in an African adult patient with transverse colonic impaction. However, ingested foreign bodies are a common event in the paediatric population.

PRESENTATION OF CASE:

A 19-year-old male who presented with a history of sudden abdominal pain of one week duration following ingestion due hunger. He had no abdominal distension, nausea and vomiting. He was tolerating oral feeds. He had no urinary symptoms, no fever, jaundice or bleeding from any of his orifices. No previous history of surgery. He was said be on treatment for depressive psychosis for three years before defaulting for three weeks in church, where he swallowed the object and refused telling anyone not until a week to presentation.

Examination revealed a young man in depressed mood. Evidence of previous chain on leg. He was pale,

afebrile, anicteric. His pulse rate was 76 per minute and of small volume. Blood pressure was 120/60 mmHg and respiratory rate 20 cycles per minute. His temperature was 37oC. His chest was clear clinically. The abdomen was flat, tenderness around the umbilicus and with guarding. Bowel sounds were present and normal. Digital rectal examination revealed an empty rectum. A diagnosis of metallic foreign body ingestion in a psychotic patient was made.

Packed Cell Volume done was 22% (7.3g/dl). Serum electrolyte urea and creatinine results were within normal limits. An abdominal ultrasound revealed no abnormality. However a plain abdominal radiography done revealed impacted L-shaped metallic object appear to be on the ascending colon fig 1. A repeat plain abdominal radiograph done on following day revealed same findings.

He was resuscitated with intravenous fluids (normal saline, dextrose in saline infusion) and transfused with three units of blood. Antibiotics were given (ceftriaxone 1gm, metronidazole 500mg). Analgesics were also given. Urethralcatheterization was done to monitor urine output.

On the second day of admission, he had an exploratory laparotomy.

The findings were normal peritoneal fluid, impacted door bolt coloured dark, measuring 8.5 cm long, 3.5cm lengthof curved part and 0.8cm thick, weight of 0.8kg, at mid portion of transverse colon. He had enterostomy fig 2-3 and foreign body removal fig 4, enterostomy site closed, continued analgesics and antibiotics. Wound inspection done on fourth day post operation was clean and well apposed. His outpatient follow-up has been uneventful.

DISCUSSION:

The first recorded paediatric foreign body ingestion was described by Frederick the Great in 1692[2]. Most accidentally ingested foreign bodies go undetected and pass through without any incident. However, 10%-20% require endoscopic removal and 1% or less require surgical intervention[3]. In general, the passing of an ingested foreign body depends on the anatomic conditions of the gastrointestinal tract and on factors related to the ingested foreign body. Long, thin objects as seen in our case are less likely to pass the pylorus or the duodenum[2]. The presenting features vary according to the site and include pancreatitis, hepatic abscess, appendicitis, intussusceptions and irritable bowel syndrome[1,2]. Index case had abdominal pain and volunteered information to the parents. His parents doubted him until the finding on radiograph.

There are some foreign bodies mimicking other conditions, a few reports of foreign bodies imitate Crohn's disease (CD) in the English literature. Ioannidis et al[4] reported on a case of incidental toothpick ingestion which caused an ileum fistula and mimicked CD. In addition, a patient presented with recurrent, subacute obstruction and right iliac mass mimicking the presentation of CD[5]. No Crohn disease condition was seen in index case.

Foreign bodies usually cause acute symptoms of perforation, obstruction or gastrointestinal bleeding. However, our patient had acute symptoms but no such complications. This may be due to the type of metal involved.

We were presented with a healthy, young adolescent with acute abdominal pain and depression. Colonoscopy would have been done but considering the site of impaction and size and foreign body, this may pose a lot of challenges in retrieval. This was truly supported by the weight. The patient concealed information of swallowing metallic door bolt. His subsequent hospital admission due to acute abdominal symptoms may be explained as due to his waxing and waning depressive episodes. Later the foreign body passed through the upper gastrointestinal tract and impacted in the transverse colon appearing as if it is in the caecum as seen on radiograph. The value of imaging studies for an ingested foreign body seems to be very good for metallic and radiopaque objects based on our case. Hence, plain abdominal X-ray. Abdominal ultrasound could not identify the metallic object may be due to the observer dependence. The role of imaging studies is crucial to determine the inflammatory reaction in and around the bowel wall and to exclude findings requiring surgical intervention[6].

The majority of ingested foreign bodies that reach the stomach pass through the alimentary tract without complication. If not, the management of ingested foreign bodies is dependent on their size, shape, material and location. After imaging studies, endoscopy should be considered as the crucial step in management since it is a potent and safe diagnostic tool especially when this is feasible. Surgical treatment is mandatory in the presence of complications such as abscesses and fistulas[6]. Also in case where endoscopy may cause complication or proof fatal such as in index case. In our patient, we did not attempted the removal of the embedded by endoscopy because we envisaged perforation and difficulty due to nature of material.

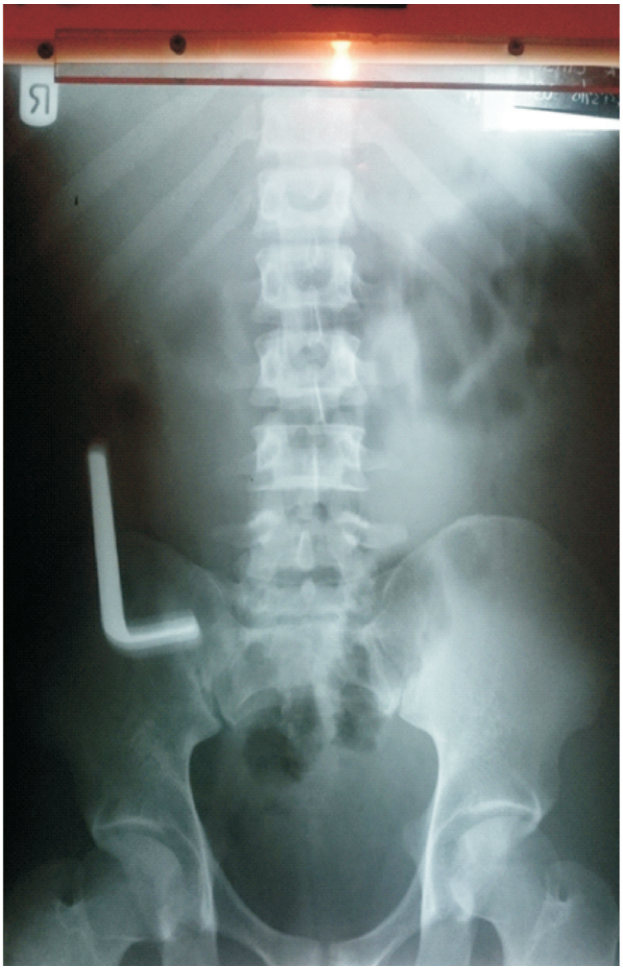

Fig 1 Foreign body on plain radiograph Anterior-posterior view.

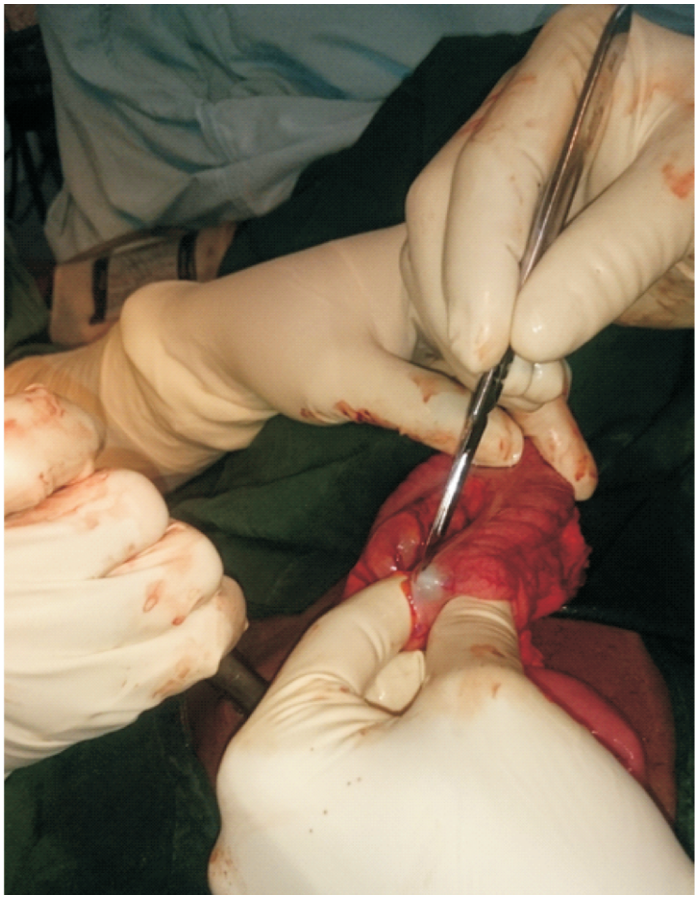

Fig 2 Enterostomy (Taeniostomy) made to retrieve foreign body.

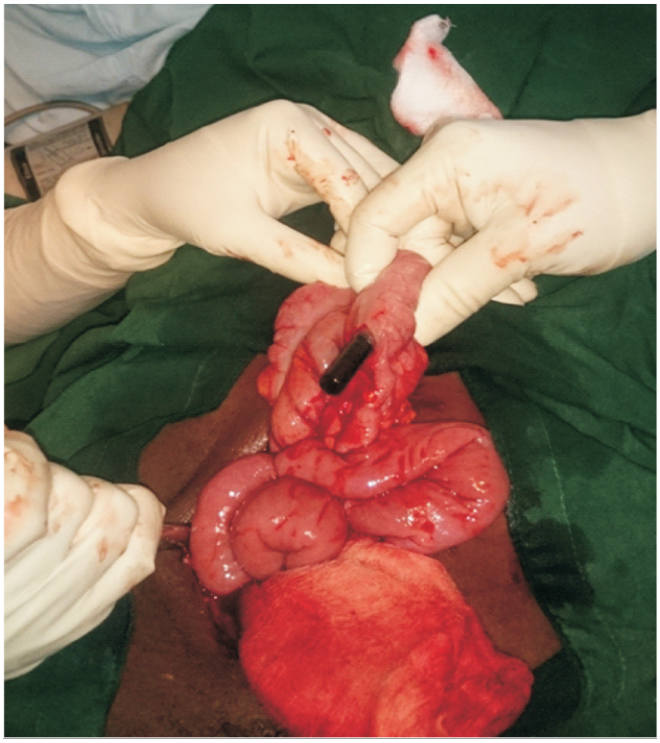

Fig 3 Foreign body about to be removed.

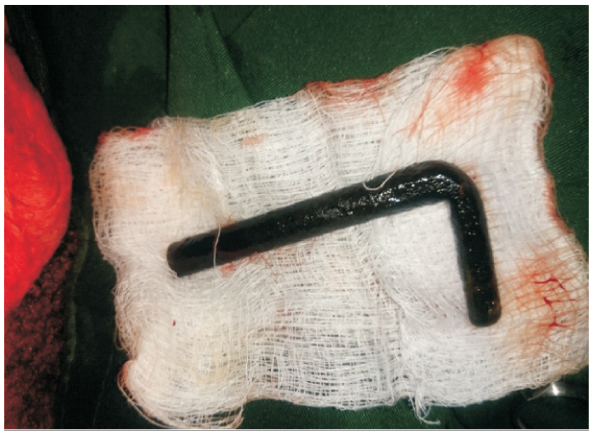

Fig 4 Foreign body.

CONCLUSION

Index case was an adolescent patient with acute gastrointestinal symptoms due to a swallowed metallic foreign body. Therefore, an ingested foreign body should be included in the differential diagnostic procedure related to acute gastrointestinal symptoms especially in depressed adults.

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