

Odyssey of an accidentally ingested sewing needle from mouth to mesentery of small bowel in a young female

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Abstract

Foreign body (FB) ingestion is one of the most common complaint in the emergency room and, extra-intestinal migration of penetrating sharp FBs is one of the most overlooked aspect of medical research. We report a case of accidental ingestion of a sewing needle which was recovered from the mesentery.

The 28-year-old female presented to our hospital with abdominal pain and one-month's history of needle ingestion. Initially laparoscopy was performed, which was inconclusive. Afterward, through laparotomy, the needle was successfully removed from the mesentery of small bowel.

Keywords: Foreign body, sewing needle, migration, mesentery.

Introduction

Foreign body (FB) ingestion is often perceived to be a common problem in paediatric patients, with reports of ingestion of coins (26.23%), unidentified metal objects (13.11%), bones (8.19%), batteries, and buttons (6.55%).¹ However, it is also a problem commonly incurred among adult patients too, with ingestion of fish bones (37.0%), food (19.0%), and metals (18.4%).² In about 80% of cases, the ingested material passes uneventfully through the gastrointestinal tract; endoscopy is performed in about 20% of cases, and surgery in less than 1%.³

We are reporting a rare case of mesentery involvement after ingestion of a sharp FB, requiring surgical intervention.

Case History

A 28-year-old female, housewife, presented to the Out-Patient Department of Civil Hospital Karachi on 24 September 2016 with one month history of accidental ingestion of a sewing needle. The patient presented

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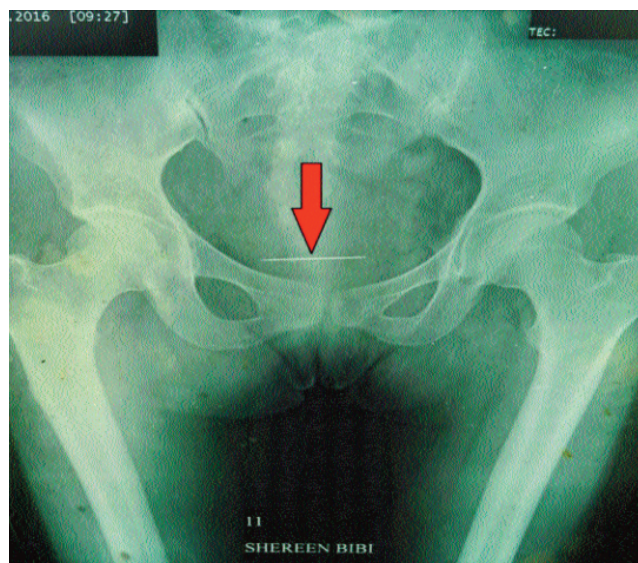


Figure-1: X-Ray showing needle.

with the complaint of abdominal pain, which was moderate to severe in intensity, localized to right iliac and the hypogastric region. The pain was aggravated on defecation or ingestion of food and was not associated with fever, nausea or vomiting. Patient also complained of constipation and lack of appetite since ingestion of the needle. Patient's past medical and surgical history was unremarkable. Patient had no previous psychiatric history and did not present with any signs and symptoms of a psychiatric illness. Patient had two normal vaginal deliveries; her last delivery was four and half months ago and her last menstrual period started two days back, thus decreasing the chances of patient suffering from postpartum depression or psychosis.

On general examination, the thin and lean patient was conscious, and well oriented to time, place and person. Vitally, she was stable. On abdominal examination, patient had a soft abdomen and tenderness was noted in the right iliac fossa and hypogastric region. Gut sounds were audible and no visceromegaly was appreciated.

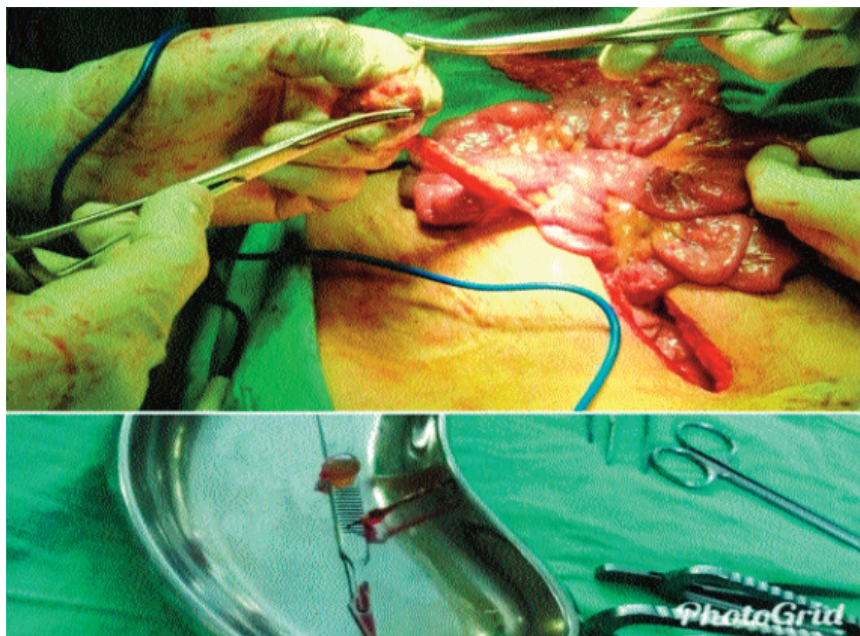


Figure-2: Top picture shows needle in mesentery, and bottom picture shows retrieved needle kept in a dish.

Patient was referred to the surgical ward, where investigations including CBC, Urine DR, Liver function test, Ultrasound abdomen and X-ray abdomen were performed. X-ray revealed a needle (Figure-1). CT confirmed the presence of the needle in the pelvic area. Colonoscopy was performed to locate the needle on 3 October 2016, however, no signs of impacted needle were found up to the caecum. Therefore, on 7 October 2016 diagnostic laparoscopy was performed, by making an infra-umbilical port, and whole abdomen was thoroughly inspected for the needle, however the needle was not located. Open surgery was undertaken with a lower midline incision which was deepened and peritoneum was opened. Whole gut was palpated for the needle which was identified and removed from the mesentery of the small bowel (Figure-2). A helminth was also identified in the small intestine. The needle was removed from the mesentery and the abdomen was closed in layers. The patient had an uneventful recovery and was discharged.

Patient did not come for a follow up visit.

Discussion

Foreign body ingestion is one of the common reasons for emergency room visits particularly in paediatric and geriatric age groups.⁴ The most common ingested foreign bodies (FB) being coins and toys in children, and chicken and fish bones in elderly and alcoholics.⁴ Majority of FB ingestion cases seen in adults are intentional, usually in

people with a preexisting psychiatric illness, history of substance abuse or in people seeking secondary gain.⁵ Furthermore, patients with psychiatric illness or prisoners usually ingest objects like pens, toothbrushes and razor blades.^{6,7}

Most of the cases of FB ingestion, approximately 80%, pass through the gut uneventfully, with endoscopy indicated in only 20% of the cases and surgery indicated in less than 1% of cases.³ Symptoms are more common in children than in adults.⁵ The symptoms range widely from mild cramps, vomiting, diarrhoea, localized abdominal pain, intestinal obstruction, fever and other indication of inflammation due to pressure necrosis, and acute abdominal pain from perforation.^{4,7} The time of onset of symptoms can range from a few minutes to years but 64% of the cases

present with symptoms after 48 hours of ingestion,⁸ with epigastric pain being the most common presenting symptom.⁴

The aim of this study is to stress that a surgeon should consider mesentery a possible location of a sharp FB if he is unable to locate it on laparoscopy. Most cases reported usually present with esophagus as the likely possible location, focusing mostly in children. Very few cases report foreign bodies in the intestine of adult patients.

Working in a government run tertiary hospital in a third world country means lack of many useful equipment either due to lack of funding for purchase or for maintenance after purchase. In the presented case, the portable X-ray machine could have determined the location of needle, making the laparotomy performed unnecessary.

This case serves as a reminder that although in most cases, approximately 80%, the ingested FB passes uneventfully through the GI tract, patients should visit a doctor as early as possible following such an event. This is very important if the FB is sharp and the duration of impact is long, as both these conditions are risk factors for development of complications, such as, ulcers (21.2%), lacerations (14.9%), erosions (12.0%), and perforation (1.9%), following FB ingestion.² Some writers stress that sharp foreign bodies should be removed within 24 hours

of ingestion. If history of ingestion is long, then difficulty arises in localization of FB. It may penetrate the gut and move extra-luminally, as in the case reported by Zohra and Ikram.⁹ Thus, in such a situation, patient should visit a doctor as early as possible because an estimated 1500 deaths occur in US annually from foreign bodies.¹⁰

Also, people working with needles or pins like designers, seamstresses and those who wear hijab should take precautions and ensure that they never hold a needle between their teeth or in their mouth, as there is a risk of ingesting the needle.

Conclusion

In conclusion, mesentery should be considered as a possible location for migration of sharp FBs passing through the gut, and surgeons should always bear this in mind while performing explorative laparoscopic procedures.

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Conflict of Interest: One of the authors signed the letter of approval.

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References

1. Diaconescu S, Gimiga N, Sarbu I, Stefanescu G, Olaru C, Ioniuc I, et al. Foreign Bodies Ingestion in Children: Experience of 61 Cases in a Pediatric Gastroenterology Unit from Romania. *Gastroenterol Res Pract.* 2016; 2016: 1982567.
2. Sung SH, Jeon SW, Son HS, Kim SK, Jung MK, Cho CM, et al. Factors predictive of risk for complications in patients with oesophageal foreign bodies. *Dig Liver Dis.* 2011; 43: 632-5.
3. Ambe P, Weber SA, Schauer M, Knoefel WT. Swallowed Foreign Bodies in Adults. *DtschArzteblInt* 2012; 109: 869-75.
4. Cho EA, Lee DH, Hong HJ, Park CH, Park SY, Kim HS, et al. An unusual case of duodenal perforation caused by a lollipop stick: a case report. *ClinEndosc.* 2014; 47: 188-91.
5. Dedania B, Khanapara D, Panwala A, Dharan M. A Case of Mysterious Impacted Duodenal Foreign Body Presenting with Halitosis. *Case Rep Gastroenterol* 2017; 10: 800-7.
6. Velitchkov NG, Grigorov GI, Losanoff JE, Kjossev KT. Ingested foreign bodies of the gastrointestinal tract: retrospective analysis of 542 cases. *World J Surg.* 1996; 20: 1001-5.
7. Carp L. Foreign bodies in the intestine. *Ann Surg.* 1927; 85: 575-91.
8. Palta R, Sahota A, Bemarki A, Salama P, Simpson N, Laine. Foreign-body ingestion: characteristics and outcomes in a lower socioeconomic population with predominantly intentional ingestion. *Gastrointest Endosc.* 2009; 69: 426-33.
9. Zohra T, Ikram M, Iqbal M, Akhtar S, Abbas SA. Migrating foreign body in the thyroid gland, an unusual case. *J Ayub Med Coll Abbottabad.* 2006; 18: 65-6.
10. Stack LB, Munter DW. Foreign bodies in the gastrointestinal tract. *Emerg Med Clin North Am.* 1996; 14: 493-521.