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Case Report

An Unusual Case of an Intraperitoneal Foreign Body

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ABSTRACT

We report a case of an intraperitoneal foreign body lodged in the rectum by the patient. Our patient was a 42-year-old male, who presented within 48 hours of inserting the event. Radiologically, pneumoperitoneum was present but intraoperatively, no gut perforation was found. This study aims to report managing such a case while emphasizing the possibility of concealed gut perforation. We want to emphasize the importance of a surgeon demonstrating compassion while collecting claims of such nature, owing to the numerous associated social taboos. It is observed that patients insert objects through the rectum for sexual gratification, however, during history taking they tend to deny it. This case highlights the delayed nature of presentation in a case that needed a crucial multidisciplinary approach for management.

Keywords: Intraperitoneal foreign body, Rectal foreign body, Pneumoperitoneum, concealed gut perforation.

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INTRODUCTION

Rectal foreign bodies are a rare but not unusual finding mentioned in literature and can be traced back to the 16th century. Numerous objects, regardless of their size and shape, have been inserted by people per rectum, and include bottles, cans, glass, bulbs, fruits, vegetables, vibrators, dildos, and toys.[1,3] The most common cause for rectal foreign body insertion is reported to be autoeroticism.[1] Other causes include accidental insertion, assault, self-treatment of fecal impaction, prostatic massage, and body packing of illicit drugs and weapons.[2] The most common problem encountered in all such cases is the delay in seeking medical help, along with a fabricated history narrated by the patient.[1]

Often, the reason for delayed reporting is embarrassment, specifically the stigma of sexual frustration, which inhibits the patient from seeking timely medical attention.[3] Henceforth, awareness needs to be created regarding the potential complications of foreign body insertion per rectum, along with the provision of thorough psychiatric evaluation and appropriate management.

CASE REPORT

A 42-year-old male presented to the emergency department with a history of per rectal insertion of a plastic stick two days ago, which, according to the patient, was used routinely by him to aid in defecation. He presented with constipation associated with fresh per-rectal bleeding since the event.

On examination, the patient was alert and communicative, and lying in bed with visible signs of discomfort, owing to severe abdominal pain. His vital signs were typical.

The abdomen was distended with mild generalized tenderness, guarding, and rigidity. A longitudinal mass was readily palpable on the left side of the abdomen whereas the digital rectal examination was unremarkable. The patient reported a past surgical history of hemorrhoidectomy in 2016. A plain abdominal x-ray (Figure-A) revealed the presence of a radiolucent linear tubular shadow from the left hemipelvis to the left hypochondrium, likely a foreign body.

The patient was planned for colonoscopy and his colon was visualized up to the mid-transverse colon, beyond which there was stool impaction. However, no foreign body was found up to that point. A contrast-enhanced computed tomography (CECT) scan of the abdomen was performed later on to assess the foreign object and the presence of any perforation (Figure-B). It showed a long linear foreign structure lying obliquely and traversing through the mesentery, with its superior tip present in the left hypochondrium just below the diaphragm. The lower tip was seen in the right iliac fossa, with evidence of surrounding mild fat

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stranding along the entire length of the foreign body. Mild free air under the diaphragm was also noted.

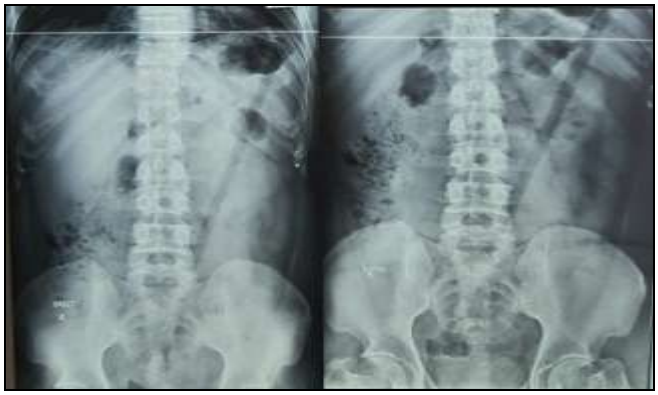

Figure-A: Abdominal Radiograph Erect and Supine Showing a Radiolucent Tubular Shadow of Foreign Body

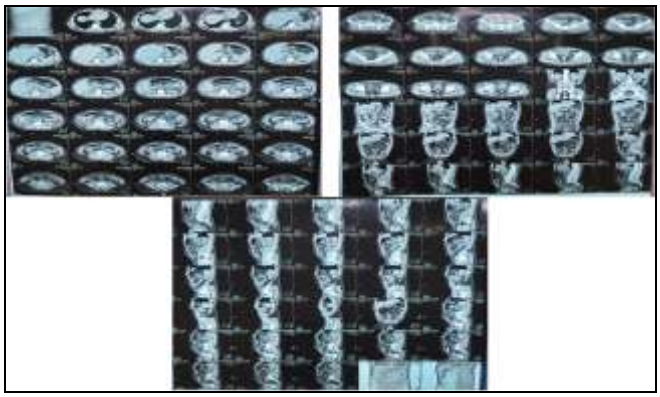

Figure-B: CECT Scan Abdomen Axial, Coronal, and Sagittal views showing foreign body with Pneumoperitoneum

On diagnostic laparoscopy, the proximal end of the object was found between the loops of the small bowel and was difficult to manipulate. Hence, the procedure was converted into a laparotomy, the peritoneal cavity was explored, and the foreign body was removed. Small and large bowels were thoroughly examined but no perforation was localized except 20-30 ml of free fluid in the left paracolic gutter and pelvis. The large bowel was intact and healthy, all the way to the intraperitoneal part of the rectum. The foreign body recovered from the peritoneal cavity was a 32cm long, thick, rigid flexible plastic pipe, with round edges. The entire postoperative period of the patient was uneventful.

On history review, the patient revealed habitual use of the same plastic tube on several occasions in the past as well, including for assistance in defecation, but mostly for sexual gratification. However, since he was always able to remove it successfully, he continued the practice without inhibitions.

DISCUSSION

There is plenty of medical literature on anorectal foreign bodies, however, there is no documentation of a case involving an intraperitoneal foreign body inserted through the rectum leading to concealed intestinal perforation.

The diagnosis is usually based on a combination of medical history, digital rectal examination, sigmoidoscopy, and abdominal x-ray.[4] FB, owing to the associated complications, should always be considered a serious issue, requiring emergency treatment. Most items are introduced in the rectum, while some are swallowed, and eventually become stuck in the rectum.[5] FB inserted through the rectum presents a diagnostic/treatment dilemma, from the initial evaluation in the emergency room to the post-retrieval stage. Before initiating the management of FB, it is important to know the object's type, material, size, and number. Rectal foreign bodies can be high or low, depending on their location above or below the rectal sigmoid transition, and are subsequently classified as high or low lying. If an object is palpable on DRE, it is considered low-lying and if no perforation is found, then it can be removed manually. A high-lying foreign body may seem complex but generally requires endoscopic or surgical removal.[6] Attempts to remove the FB by the patient can result in perforations, peritonitis, sepsis, migration to proximal regions of the intestine, intestinal obstruction, and mucosal lacerations .[7]

The foreign body in our case was a high-lying, thick, rigid plastic tube measuring 32 cm, whose lower tip was in RIF and the upper tip in the left hypochondrium. Initially, a colonoscopy was performed where no perforation was found and FB was also not visualized. Later on, the patient underwent a diagnostic laparoscopy, which confirmed the presence of a long tube whose proximal end was found in between the loops of the small bowel but was difficult to retrieve due to its thick and rigid material. Conversion to laparotomy is needed to completely remove the object.

Surgical intervention and exploration are required if a foreign body causes symptoms such as peritonitis, intraperitoneal rupture, and perrectal bleeding, all of which can vary depending on the case.[8] Generating awareness regarding the possible life-threatening complications of improvised dildos

and toys for autoerotic purposes may significantly reduce the incidence of such cases. Moreover, confidentiality, counseling, and reassurance are key practices that need to be ensured.

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Authors Contribution

Following authors have made substantial contributions to the manuscript as under:

SK & ASM: Study design, drafting the manuscript, data interpretation, critical review, approval of the final version to be published.

MUITK & AH: Data acquisition, data analysis, approval of the final version to be published.

HA & SAB: Critical review, concept, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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