

Case of a foreign body (plastic water filter) in rectum

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Abstract

A 26 year old male patient with a foreign body introduced per rectally by his partner, presented with lower abdominal pain and unable to pass stools. As colonoscopy retrieval failed patient was taken up for exploratory laparotomy and foreign body retrieved from rectum followed by diversion ileostomy.

Keywords: Rectal foreign body, rectal trauma

Introduction

The clinical management of rectal foreign bodies (RFBs) remains one of the most challenging and heterogeneous scenarios encountered in acute surgical practice. While the prevalence of RFBs is frequently underreported due to patient embarrassment and social stigma, the diversity of recovered objects—ranging from household items to industrial tools—presents a continuous challenge to the general surgeon.

The types of foreign bodies vary widely, as do the reasons for insertion. Objects encountered are most commonly household objects consisting of bottles and glasses (42.2%). Other objects include toothbrushes, deodorant bottles, food articles, knives, sports equipment's, cell phones, flashlights, wooden rods, broomsticks, sex toys, light bulbs, nails or other construction tools, ornaments and many more" [7]. "The reasons for insertion in decreasing order of frequency are autoeroticism, concealment, attention seeking behaviour, accidental, assault and to alleviate constipation. The motivation of foreign rectal body insertion is mostly sexual stimulation" [8].

Historically, the demographics of RFB presentations have shown a significant male predominance, typically occurring in the third to fifth decades of life. The etiology is multifaceted, often categorized into:

- **Auto-eroticism:** The most common cause in adult populations.
- **Iatrogenic:** Dislodged medical devices or thermometers.
- **Traumatic:** Assault or accidental impalement.
- **Concealment:** Illicit substance trafficking (body packing).

Case Report

A 26 year old male presented to surgery OPD with alleged history of insertion of a foreign body into the anal canal by his partner the previous night. He presented with lower abdominal pain and was unable to pass stools.

Detailed medical history of patient revealed that his partner had inserted a plastic object into rectum for sexual satisfaction, but he could not remove it.

Patient couldn't describe the physical appearance of the foreign body. Patient was vitally stable, abdomen was soft. Foreign body was palpable per rectally by the tip of the index finger. Colonoscopy showed a plastic object with smooth surface, and retrieval wasn't possible as the object

was impacted and difficulty in gripping the object. Decision was taken to convert to exploratory laparotomy. Anterior rectotomy was done and foreign body was removed carefully.

Foreign body was found to be a "plastic water filter" of size 10 cm long and 5 cm in diameter. Primary repair of the rectum done in two layers. A diversion ileostomy done to promote healing of the rectum. Patient's recovery was uneventful post operatively and patient was referred for psychiatric treatment.

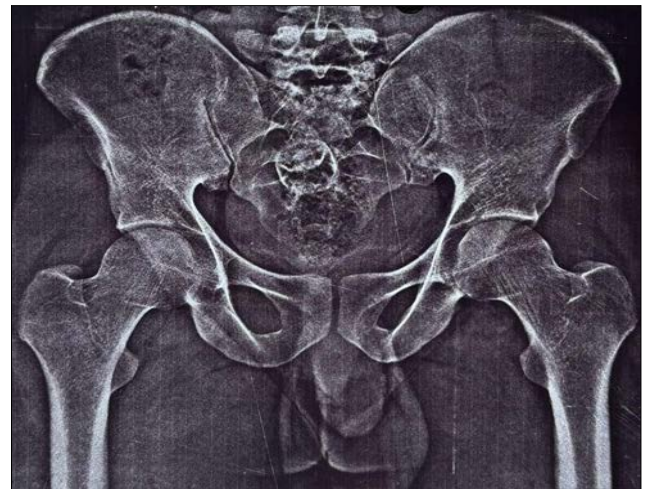


Fig 1

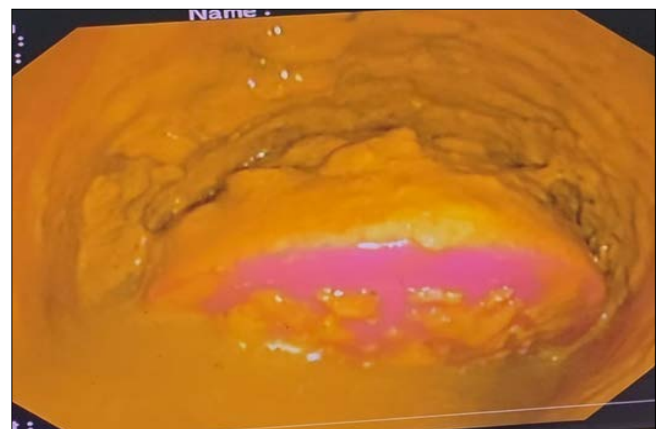


Fig 2

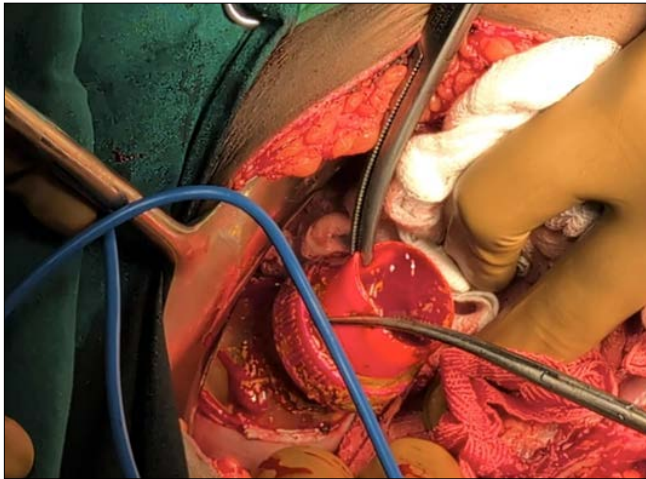


Fig 3



Fig 4

Discussion

Generally, patient has inserted the object body into own rectum; rarely it may happen accidentally, or it may be the result of a criminal act. In the present case, patient had inserted foreign object into his rectum seeking sexual satisfaction.

The management of rectal foreign bodies (RFBs) presents a unique challenge to the surgeon, necessitating a clear algorithm that progresses from conservative retrieval to definitive surgical intervention when indicated ^[1]. While most RFBs can be successfully managed through transanal extraction—often under conscious sedation or spinal

anesthesia—the success of these manoeuvres is strictly dependent on the object's dimensions, texture, and the duration of its impaction ^[2, 5].

“Review of literature provides descriptions of various methods to extract foreign objects. Principal methods have been performed under sedation or general anesthesia, and include manual transanal extraction, endoscopic transanal extraction using Kocher clamp, laparoscopic transanal extraction, laparotomy through a single incision” ^[6].

Limitations of Endoscopic Retrieval

In this case, the failure of colonoscopic retrieval was a direct consequence of the “vacuum effect” and the mechanical impaction of the water filter. Endoscopic approaches are frequently attempted as a first-line treatment for proximal objects, but their success rate diminishes significantly for rigid, wide-diameter objects that create an airtight seal against the rectal mucosa ^[2, 3]. The physical dimensions of a water filter often exceed the technical capacity of standard endoscopic snares or grasping forceps, and prolonged manipulation increases the risk of iatrogenic mucosal injury or full-thickness perforation ^[1].

Indications for Exploratory Laparotomy and Rectotomy

The transition to exploratory laparotomy is mandatory when transanal or endoscopic attempts are unsuccessful or when signs of peritonitis are present ^[2]. In the absence of perforation, surgeons may initially attempt a “milking” maneuver to move the object cephalad into the sigmoid colon for a more favourable colotomy. However, in cases of severe impaction, an anterior rectotomy is the most direct and safest method for extraction ^[4]. As performed in this case, a two-layer primary repair is essential to ensure the integrity of the rectal wall post-extraction.

The Role of Diversion Ileostomy

The decision to perform a **diversion ileostomy** following rectotomy is a critical measure to mitigate the risks of anastomotic dehiscence or suture line leak ^[4]. In cases involving large household objects like water filters, the rectal wall often suffers from pressure-induced ischemia or significant inflammatory edema due to prolonged impaction. Diverting the fecal stream provides a protected environment for the primary repair to heal, reducing the risk of catastrophic pelvic sepsis—a decision supported in literature for complex, high-risk rectal injuries ^[1, 4].

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