

Foreign Body in the Rectosigmoid Colon: A Rare Case Report and Its Management

Samir Suresh Deolekar¹, MBBS, MS;¹ Sulay Kaushik Shah¹, MBBS; Manish Namdeo Khobragade¹, MBBS; Virendra Vijaykumar Deshmukh¹, MBBS, Pallavi Padmakar Kulkarni¹, MBBS; Abhay Narendra Dalvi¹, MBBS, MS; Tsering Yangchen Dirkhipa^{2*}, MBBS¹

¹Department of General Surgery, Seth GS Medical College and KEM Hospital, Mumbai

²Seth GS Medical College and KEM Hospital, Mumbai,

*Corresponding authors:

Tsering Yangchen Dirkhipa, MBBS;
UGPG Hostel, Boys Wing, KEM Hospital, 400012, Parel, Mumbai.
Tel: +91 8850261347
Email: tseringyangchen000@gmail.com

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Abstract

Background: Rectal foreign bodies are uncommon in the emergency department, though their incidence has increased gradually in the past few decades. Management depends on whether there is any perforation or not, and on the size, shape, consistency, and site of the foreign body.

Case Presentation: A 55-year-old male with a history of foreign body insertion per rectum following an alleged history of assault. The patient was soft per abdomen without any signs of peritonitis on abdominal examination. In spite of repeated attempts in the emergency ward, we were unable to retrieve the foreign body per rectum manually. After retrieving the foreign body wholly via the transanal approach along with suprapubic pressure manually, the foreign body was a 25*5*5 cm cylindrical pencil case with a condom over it.

Conclusion: Surgery with a laparotomy should be reserved for patients with perforation or ischemic bowel or cases of failed transanal attempts. After removal of the foreign body, we suggest a period of observation, rigid or flexible endoscopy to evaluate for rectal injury, and repeat plain films to examine for evidence of injury and perforation that may have occurred during the extraction process.

Keywords: Foreign body, Rectosigmoid, Transanally

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Introduction

Rectal foreign bodies are uncommon in the emergency department, though their incidence has increased gradually in the past few decades. Presentation is generally delayed owing to the individual's resistance to come to the hospital due

to embarrassment. Emergency room physicians and general surgeons need to be systematic in their approach; they must be familiar with a variety of extraction techniques and management of colorectal injuries resulting from the insertion or extraction of the foreign body. Management depends on whether there is any perforation or not, and on the size, shape,

consistency, and site of the foreign body.

A variety of techniques can be used to remove the foreign body, including the transanal endoscopic or laparotomy approach. We present a case report of a middle-aged male with a rectal foreign body successfully removed transanally under general anesthesia.

Case Presentation

We present the case of a 55-year-old male with a history of foreign body insertion per rectum following an alleged history of assault. On presentation, the patient was vitally stable with complaints of inability to pass stools and vague lower abdominal pain for one day. The patient was soft per abdomen without any signs of peritonitis on abdominal examination. On per rectal examination, the foreign body could be palpated at the tip of the finger with no evidence of bleeding per rectum. The abdominal X-ray revealed a large radiolucent foreign body placed in the rectum (Figure 1).

On the basis of imaging, the foreign body appeared to be a large cylindrical object in the upper rectum extending till the sigmoid without any sharp edges. There was no evidence of perforation or intestinal obstruction on imaging. In spite of repeated attempts in the emergency ward, we were unable to retrieve the foreign body per rectum manually. The large, smooth object had no grasping edges and was unlikely to be removed using endoscopy. We proceeded to undertake a transanal extraction of the foreign body under adequate anesthesia. General anesthesia was given along with a muscle relaxant, and the patient was placed in a high lithotomy position with stirrups attached. Anal dilation using four fingers and manual extraction of the foreign body along the rectosigmoid curve was attempted. We were able to retrieve the foreign body wholly via the transanal approach along with suprapubic pressure manually, using the help of one of our team members with relatively smaller hands that could easily guide the object out along the rectosigmoid curve. Repeat examination of the rectal mucosa using proctoscopy was done to look for any rectal mucosal injuries or bleeding. A repeated X-ray was performed intraoperatively to confirm the lack of perforation.

The foreign body was a 25*5*5 cm cylindrical pencil case with a condom over it (Figure 2).

Retrospectively, in view of no rectal injuries or any other organ injury in the body, and as per the state of foreign body retrieved, it seemed to be a case of a self-inserted foreign body. The postoperative course was uneventful. The patient was referred to the psychiatrist for his perversion disorder, which was necessary for preventing recurrences. Informed consent was obtained from all participants.

Discussion

Rectal foreign bodies are commoner in males,

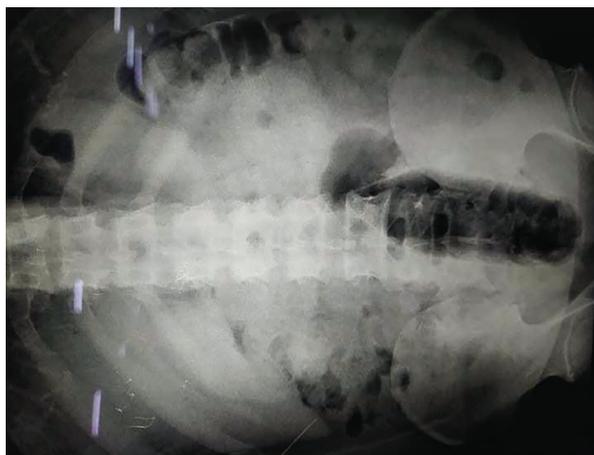


Figure 1: Abdominal X-ray suggestive of a conical foreign body in the rectum with air within.



Figure 2: The extracted foreign body: a cylindrical pencil case (approx 25*5*5 cm) covered by a condom.

with the median age being around 40 years. Most rectally retained foreign bodies are those that have been inserted for the purpose of erotic stimulation and gratification. Almost any object can be found, including sex toys, bottles, light bulbs, metal and wooden objects, fruit, vegetables, batteries, aerosols, and caps. One of the most common types is best known as body packing and is commonly used by drug traffickers. Even after presentation, patients may give vague complaints of abdominal pain and may not reveal their actual history (1). One must always have a high index of suspicion regarding the discrepancy between the history given and the actual mode of insertion, as seen in our case.

The first step in evaluating a patient should be the assessment for peritonitis, as this requires urgent laparotomy and suggests a perforation with intraperitoneal contamination. A careful digital rectal examination is the most informative component of the evaluation process as it indicates the proximity of the object to the pelvic floor. It is also essential to gauge the size, shape, and type of foreign body (sharp or blunt) present, along with the functional status of the sphincter complex both by exam and clinical history. If a foreign body is not palpable in the rectal exam, further evaluation with rigid or flexible proctosigmoidoscopy and imaging should be performed. In clinically stable patients without evidence of perforation or peritonitis, the rectal foreign body should be removed either in the emergency department or in the operating room if general anesthesia is needed. Depending on the size

and shape of the object, various methods have been described. Most objects can be removed transanally, endoscopically and if not, then an exploratory laparotomy is required (1-4, 5).

When attempting to remove a rectal foreign body transanally, patient relaxation is the most important factor in successful extraction. This can be achieved with a perianal nerve block, a spinal anesthetic, or either of these in combination with intravenous conscious sedation. The high lithotomy position in candy cane stirrups facilitates the removal of most objects and has the added benefit of allowing for downward abdominal pressure to aid in the extraction of the foreign body. The anal canal should be gently dilated to three fingers' breadth. If the foreign body can be easily palpated, it is amenable to transanal extraction using one of many clamps and instruments. After successfully removing a rectal foreign body, the mucosa of the colon and rectum needs to be examined. Rigid sigmoidoscopy is recommended, although some advocate flexible sigmoidoscopy. A repeat plain film of the abdomen is often warranted to ensure that no perforation occurred during the extraction process (3-7).

Many indigenous methods have been described in the literature to extract rectal foreign bodies, including Foley catheter, Sengstaken-Blakemore tube, obstetrical forceps, and vacuum extractor (6). The best method for removing a blunt object is to grasp the object using one of the clamps mentioned earlier or, better yet, using the surgeon's hand, depending on the laxity on the canal and the success of the anal block. If the patient has a lax anal sphincter, there is a good block, and the patient is adequately sedated, the object is often easily removed. A surgeon or paramedical staff with a smaller hand is more suited for removing the foreign body.

Some smooth foreign bodies create a seal with the rectal mucosa. In this case, it has been shown that placing a Foley catheter alongside the balloon above it helps in extraction (4, 5, 8-10). Obstetric vacuum extractors have been described to grasp the object, widen the anal canal, and release the rectal seal (4).

Removal of sharp objects can prove even more difficult. These objects should be removed with the most care under direct visualization through a rigid or flexible endoscope (4). The ingestion of illicit drugs in small packets poses a particularly challenging dilemma. Clamps are not recommended when attempting to remove these as the packets are easily ruptured. Should signs or symptoms of perforation or drug ingestion/toxicity be observed, then exploratory laparotomy to remove the remaining packets and aggressive medical treatment for the overdose is warranted. Flexible endoscopy is reserved for objects located more proximally in the

rectum or the distal sigmoid colon. In many cases, endoscopy can serve as a middle ground to avoid surgical exploration by enabling evaluation and therapeutic removal of objects that may have been non-amenable to transanal extraction.

Suppose the local perianal block and sedation are unsuccessful in the emergency department. In that case, the patient needs to be brought to the operating room for a general or spinal anesthetic to aid in the removal of the object. After anesthesia has been applied and the patient is adequately relaxed, if the foreign body cannot be removed from below, a laparotomy is indicated (3, 4). Some surgeons have also described laparoscopy as an aid to push the object more distally into the rectum for transanal removal. The first step is to attempt to milk the object distally into the rectum.

A colotomy is needed to remove the foreign object in cases where the above approach fails. This colotomy can be primarily repaired. Diversion is reserved for patients with frank peritonitis and instability or perforation with extensive fecal contamination (3, 4).

Post-extraction endoscopy and plain radiographs are a must before discharging any patient following foreign body removal (3, 4, 6). Even with routine transanal extraction, the authors recommend several hours of close observation with serial abdominal examinations and plain films as indicated.

Conclusion

Rectal foreign bodies present a difficult diagnostic and management dilemma. The

evaluation of the patient with a rectal foreign body needs to progress in an orderly fashion, with appropriate physical, laboratory, and radiographic evaluations. In the non-perforated stable patient, the object should be removed in the emergency department with a local block or conscious sedation via the transanal approach. If this fails, then the patient should be transferred to the operating room for a deeper anesthetic and another attempt at transanal extraction. Surgery with a laparotomy should be reserved for patients with perforation or ischemic bowel or cases of failed transanal attempts. After removal of the foreign body, we suggest a period of observation, rigid or flexible endoscopy to evaluate for rectal injury, and repeat plain films to examine for evidence of injury and perforation that may have occurred during the extraction process. About 70% of cases can be managed by transanal extraction; this should be the preferred technique for averting the complications of laparotomy.

Conflicts of interest: None declared.

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