



ORIGINAL RESEARCH PAPER

General Surgery

A RARE CASE REPORT OF RECTAL FOREIGN BODY CAUSING SIGMOID PERFORATION: A DIRE EMERGENCY

KEY WORDS: Rectal foreign body, sigmoid perforation, Emergency laparotomy

Dr. Sayali Rath

ABSTRACT

Foreign bodies in the rectum are a rare but challenging clinical scenario that can result in serious complications. This case report presents a 26-year-old male who arrived at the emergency department with acute abdominal pain and no clear history of trauma or foreign body insertion. Clinical examination revealed significant abdominal distension, guarding, and tenderness. A contrast-enhanced CT scan identified a linear hyperdense foreign body measuring 26 cm x 2.5 cm, extending from the epigastrium to the pelvis, accompanied by pneumoperitoneum. An exploratory laparotomy was performed, revealing a wooden foreign body causing a 2 cm x 1 cm perforation in the sigmoid colon. The foreign body was successfully extracted, and a sigmoidostomy was performed. Postoperatively, the patient recovered well and was subjected to a psychiatric evaluation to address underlying issues related to the self-insertion of the object. This case underscores the complexities involved in diagnosing and managing rectal foreign bodies, which often require a multidisciplinary approach. The combination of surgical intervention and psychiatric evaluation is crucial for successful treatment and preventing recurrence. This report highlights the need for clear guidelines and a comprehensive treatment strategy for managing rectal foreign bodies and associated complications.

BACKGROUND

Rectal foreign bodies, while uncommon, have seen an increase in recent years due to various reasons, including accidental insertion, sexual gratification, and malicious intent. (1) The management of such cases presents significant challenges for healthcare providers due to potential complications like perforation, infection, and peritonitis. (2,3) Patients often feel embarrassed, which can hinder obtaining a complete and accurate medical history, further complicating diagnosis and treatment. Foreign bodies are more commonly found in the upper gastrointestinal tract, making their presence in the rectum particularly rare. (4,5,6) The removal of these objects requires a multidisciplinary approach involving emergency medicine, surgery, and psychiatry to address both the immediate physical health risks and any underlying psychological issues. (7)

In clinical practice, the management strategy depends on several factors, including the nature of the foreign object (size, shape, material), the patient's clinical presentation, and the presence of any complications. Imaging studies, particularly contrast-enhanced CT scans, play a crucial role in determining the exact location and potential damage caused by the foreign body. (8) This case report details a particularly severe instance of a rectal foreign body causing sigmoid perforation, highlighting the need for prompt surgical intervention and comprehensive postoperative care, including psychiatric evaluation to prevent recurrence and address any underlying mental health concerns.

Case Presentation

A 26-year-old male presented to the surgical casualty with complaints of abdominal pain. The patient did not provide any history of trauma or the presence of a foreign body. On examination, the patient was vitally stable but had significant abdominal distension, guarding, and tenderness. Per rectal examination in left-lateral position revealed a hard smooth object palpable about 4 cm above the anal orifice, the upper border of which was not felt. Even after repeatedly asking the patient, he denied any foreign body insertion through the rectum or per-rectal bleed.

Given the severity of symptoms and stable vitals, the patient underwent a contrast-enhanced CT scan (CECT) with 3D reconstruction. The scan revealed a linear hyperdense foreign body measuring 26 cm x 2.5 cm, extending from the epigastrium to the pelvis, along with pneumoperitoneum.

Due to the presence of pneumoperitoneum, an exploratory laparotomy was performed. Intraoperatively, a wooden foreign body matching the CT findings was found, causing a 2

cm x 1 cm perforation in the sigmoid colon. No other injuries were detected. The foreign body was carefully extracted, and a sigmoidostomy was performed to manage the perforation.

Postoperatively, the patient was extubated and recovered without complications. A psychiatric evaluation was conducted to address any underlying issues related to the self-insertion of the foreign object.

DISCUSSION

The management of rectal foreign bodies presents significant challenges. Most cases involve self-inserted objects, often for sexual gratification, though accidental insertions or criminal intent are also possible. The initial approach involves stabilizing the patient and conducting appropriate imaging studies, such as CECT, to determine the exact nature and location of the foreign body.

In this case, the young, otherwise healthy male patient presented with features of acute abdomen. The CECT provided a clear picture of the foreign body's location and associated complications, guiding the surgical approach. The decision to perform a diverting stoma was influenced by the risk of fecal contamination and the patient's overall health status.

The removal of the foreign body and the management of the sigmoid perforation required careful surgical technique. The success of the procedure and the patient's recovery underscore the importance of a multidisciplinary approach, including surgical intervention and psychiatric evaluation. Addressing the underlying psychological issues is crucial to prevent recurrence and ensure the patient's overall well-being.

Foreign body retrieval from the rectum often lacks standardized guidelines, making each case unique. Factors such as the object's size, shape, and material influence the management strategy. In cases of perforation, immediate surgical intervention is necessary to prevent serious complications like peritonitis and sepsis. Postoperative care, including psychiatric evaluation, is essential for comprehensive patient management.

This case underscores the critical need for a multidisciplinary approach in managing rectal foreign bodies, which can lead to severe complications such as sigmoid perforation. The timely use of imaging techniques like CECT and the strategic decision for exploratory laparotomy were vital in ensuring the patient's recovery. Additionally, this case highlights the importance of addressing underlying psychological factors

through psychiatric evaluation to prevent recurrence. By detailing the complexities and successful management of such a rare and serious condition, this case contributes valuable insights for both surgical and emergency medical practices.

CONCLUSION

In conclusion, managing rectal foreign bodies, particularly those causing significant complications like sigmoid perforation, requires a comprehensive and multidisciplinary approach. This case highlights the complexity and urgency associated with such cases and the need for tailored surgical and psychiatric interventions. Establishing clear guidelines for the management of rectal foreign bodies and ensuring thorough postoperative care, including psychiatric support, can improve patient outcomes and prevent recurrence.

REFERENCES:

1. Lyons MF, Tsuchida AM. Foreign bodies of the gastrointestinal tract. *Med Clin North Am.* 1993;77(5):1101-1114.
2. Moreira CA, Wongpakdee S, Gennaro AR. A foreign body (chicken bone) in the rectum causing extensive perirectal and scrotal abscess: report of a case. *Dis Colon Rectum.* 1975;18(5):407-409.
3. Kasotakis G, Roediger L, Mittal S. Rectal foreign bodies: a case report and review of the literature. *Int J Surg Case Rep.* 2012;3(3):111-115.
4. Anderson KL, Dean AF. Foreign bodies in the gastrointestinal tract. *Clin Colon Rectal Surg.* 2012;25(4):214-218.
5. Bak Y, Merriam M, Neff M, et al. Novel approach to rectal foreign body extraction. *J SLS.* 2013;17(2):342-345.
6. Lim KJ, Kim JS, Kim BG, et al. Removal of rectal foreign bodies using tenaculum forceps under endoscopic assistance. *Intest Res.* 2015;13(4):358-362.
7. Mikami H, Ishimura N, Oka A, et al. Successful transanal removal of a rectal foreign body by abdominal compression under endoscopic and X-ray fluoroscopic observation: a case report. *Case Rep Gastroenterol.* 2016;10(3):643-652.
8. Kumar S, Gupta A, Kaundal A. Rectal foreign body: A case report and review of literature. *East Cent Afr J Surg.* 2012;17(2):104-108.