

Original Article

Unusual Huge Rectosigmoid Foreign Body

P Syama Prasad, Raj kumar, Himaja

Abstract : Anorectal foreign bodies are mostly due to insertion through anus. Rarely they reach the rectum via the oral route. They are usually inserted for sexual¹ or medical (diagnostic or therapeutic) purposes or could be due to child abuse or criminal assault². Cylindrical objects are more common since they can be easily inserted. They can cause anorectal trauma and rarely serious complications like perforation. Removal of large foreign bodies often requires surgery. Here we present a rare case of accidental trans-anal introduction of a huge foreign body (beer bottle) into the rectum.

Key Words : Rectal foreign body, Perforation, Anorectal trauma

Introduction

Large Foreign Bodies in recto-sigmoid are uncommon. Objects can be inserted for medical purpose as diagnostic tools or therapeutic purpose or self treatment of ano-rectal diseases eg prostatic enlargement, removal of impacted faeces², accidental break of thermometer while recording rectal temperature.³. Few cases in the literature described foreign bodies in the rectum in association with Munchausen's syndrome in psychiatry patients^{4,5}.

A wide variety of foreign bodies in rectum were documented that were used for erotic activity such as dildos or vibrators. In the literature many common as well as exotic objects which have been inserted through the anus, were recorded, which included light bulbs, candles, shot glasses, unusually large objects such as soda or beer bottles⁶. Objects to conceal include drug packets, weapons, guns and knives.

These patients commonly present with pain, discomfort or foreign body sensation. They present to the doctor after their attempts to remove the object fail⁷. Social embarrassment and stigmas hinder the patient to seek immediate medical care. Patients may come up with unusual stories to explain how the object was lodged in the rectum.

Case Report

Mr. M.R, a male, 32 years of age, a vegetable vender, presented with the complaints of colicky abdominal pain and mass per abdomen of 12 hours duration following

sitting on a beer bottle after consuming beer. There was no history of vomiting, diarrhea, fever or bleeding per rectum. General and systemic examinations were essentially normal. On examination a vertically oval mass, 16×8 inches in size, with well defined borders, was seen in the epigastric and umbilical regions of abdomen (fig.1). It was hard in consistency. There was no organomegaly. It was dull on percussion, and there was no fluid in abdomen. There were increased bowel sounds on auscultation. On per rectal examination, a posterior mucosal tear of 3cms was noted. There was no active bleeding. There were no perianal bruises. Anal sphincter tone was normal. Bottom of a bottle was felt on rectal examination. Proctoscopy revealed bottom of a beer bottle.



Fig.1: Photograph of abdomen showing an elevated, mass lesion of size 16X8 inches in the epigastric and umbilical regions

X-Ray abdomen revealed a radio opaque bottle in lower abdomen. (Fig 2).

CT abdomen confirmed the presence of beer bottle (fig,3). There was no evidence of pneumo-peritoneum or signs of peritonitis



Fig 2 : Plain x-ray abdomen showing radio opaque shadow (blue arrow) of beer bottle which is placed vertically

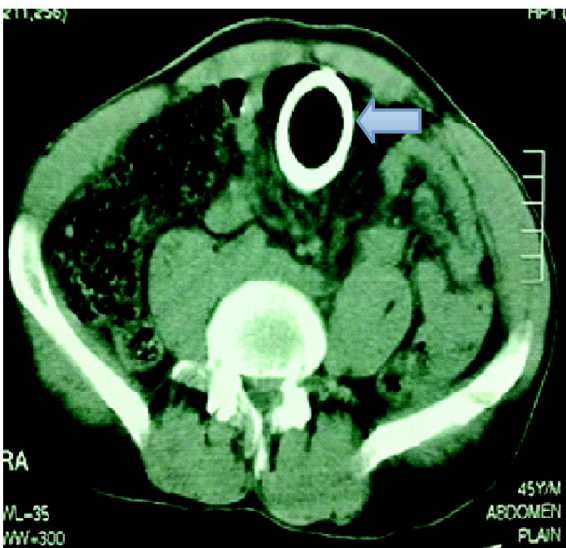


Fig 3 : C T scans of abdomen showing beer bottle (blue arrow). The glass rim with the hollow can be very clearly seen

Management

Bottle could not be delivered through rectum. Hence, Laparotomy under spinal Anaesthesia was performed through sub-umbilical midline linear incision .The beer bottle in sigmoid colon was removed without breaking it, by bimanual technique, pushing the beer bottle through the abdomen and pulling it through the anus (Figs.4,5,6)



Fig 4 : Beer bottle in the recto-sigmoid through laparotomy incision

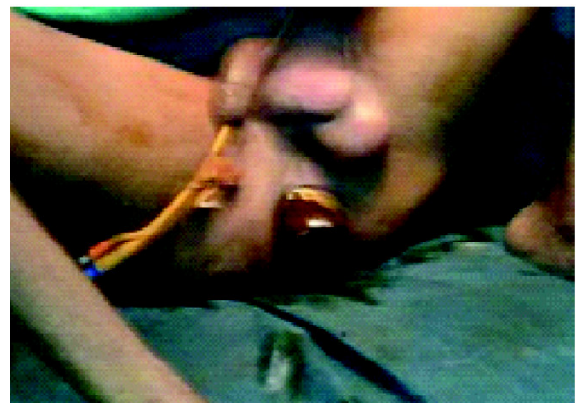


Fig 5 : Beer bottle being removed through the anus



Fig 6 : Extracted beer bottle soiled with faecal matter

There was no evidence of peritonitis or free fluid. The post-operative period was uneventful. Abdominal sutures were removed on 9th post-operative day and patient was discharged. The post operative recovery was satisfactory during follow up of 2 years.

Discussion : The incidence of rectal foreign bodies varies according to region, uncommon in Asia and most common in Eastern Europe⁸. They can be seen in as young as 20s (mostly for eroticism) to as old as 60 s (mostly for the therapeutic purposes), with a mean age of 41 years. Anorectal foreign bodies are common in males than in females^{9, 10}.

Foreign Body in rectum can be classified as high lying or low- lying, depending on their location relative to the recto sigmoid junction. High lying objects cannot be removed through anorectum as they are not visualized, and unreachable. Low lying Foreign Bodies can be removed through anorectum as they are normally palpable. Removal is difficult if there is mucosal edema and muscular spasm which are due to delayed presentation. Rectal laceration and perforation may occur.

As per Barone et al assigned prognostic categories based on levels of injury.

Category I: Retained foreign body without injury.

Category II: Retained foreign body with mucosal laceration.

Category III: Retained foreign body with sphincter injury.

Category IV: Retained foreign body with rectal perforation.

The first step in evaluation and management of a patient with rectal body is to rule out rectal perforation and peritonitis by means of Physical examination, X-ray and CT Scan⁹. The plain radiography helps to localize the object and rule out free air.¹¹.

Conservative attempt is made to remove the object by means of digital manipulation if the object is visible¹² and patient is stable. Foreign bodies made of glass need special care to remove them intact. If end of the bottle is being grasped, pad the end of forceps to avoid breakage. The object may have to be redirected around the sacral curve for removal. If the suction created by the rectal mucosa is hindering removal, a Foley's catheter method of removal can be used. Some Foreign Bodies are removed successfully by uncommon method such as use of vacuum extraction device, plaster of Paris or obstetrics forceps. Once the object is removed, consider Sigmoidoscopy or Colonoscopy to detect possible mucosal injury.

If minimally invasive techniques fail, a definite procedure is chosen. Colonoscopy removal is also reported with good success¹³. Laparotomy is only required in impacted foreign body and or with perforation peritonitis. The laparoscopic approach is also a good treatment of choice for difficult cases as it allows for easy removal, detection of rectal injury, and early discharge¹⁴. Bak et al described a novel approach to retrieval and removal of a rectal FB utilizing a single-incision laparoscopic surgery port¹⁵.

If perforation is present then primary repair, proximal loop colostomy, sigmoid end-colostomy and the Hartmann procedure, in combination with administration of wide spectrum antibiotics according to the severity of peritoneal contamination, can be performed. The mortality and morbidity rates of patients presenting with perforation above the peritoneal reflection of rectum have been reported to range from 2.5 to 20.0%¹⁶ and 20.0 to 40.0%¹⁷.

Conclusion

Rectal foreign bodies can present difficulty in diagnosis and management. ,so no single procedure is recommended. Thorough physical examination and radiography including CT are mandatory to localize the object, and know its size, so that a correct management can be planned. Care should be taken not to cause further damage while removing the foreign body. Laparotomy still has a place in removal of very large foreign bodies '.

References

1. Koomstra JJ, Weersma RK: Management of rectal foreign bodies: Description of a new technique and clinical practice guidelines. *World J Gastroenterol* 2008, 14(27):4403–4406.
2. Goldberg JE, Steele SR. Rectal foreign bodies. *Surg Clin North Am*. Feb 2010;90(1):173-84, Table of Contents
3. Management of rectal foreign bodies. In: Roberts JR, Hedges JR. *Clinical Procedures in Emergency Medicine*. 4th. Philadelphia, PA: WB Saunders Company; 2004:875-7.
4. Kent JD: Munchausen's syndrome and substance abuse. *J Subst Abuse Treat*; 1994; 11(3): 24751.

5. Khan SA, Davey CA, Khan SA, Trigwell PJ, Chintapatla S: Munchausen's syndrome presenting as rectal foreign body insertion: a case report. *Cases J*; 2008; 1(1): 243
6. Smith MT, Wong RK. Foreign bodies. *Gastrointest Endosc Clin N Am*. Apr 2007;17(2):361-82, vii.
7. Hellinger MD. Anal trauma and foreign bodies. *Surg Clin North Am*. Dec 2002;82(6):1253-60.
8. Akhtar MA, Arora PK: Case of unusual foreign body in the rectum. *Saudi J Gastroenterol*; 2009; 15 (2): 131-2.
9. Clarke DL, Buccimazza I, Anderson FA, Thomson SR. Colorectal foreign bodies. *Colorectal Dis*. Jan2005;7(1):98-103. [Medline]
10. Stack LB, Munter DW. Foreign bodies in the gastrointestinal tract. *Emerg Med Clin North Am*. Aug1996;14(3):493-521.
11. Lake JP, Essani R, Petrone P, et al. Management of retained colorectal foreign bodies : predictors of operative intervention. *Dis Colon Rectum* 2004;47:1694
12. Marx JA, Hockberger RS, Walls RM. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 5th. St Louis, MO: Mosby;2002 Management of specific anorectal problems 1356.
13. Gaponov VV. Foreign bodies in the rectum and colon (Russian) *Klinicheskaiia Khirurgiia*.1992; 2:37-40.
14. Kasotakis G, Roediger L, Mittal S. Rectal foreign bodies: A case report and review of the literature *Int J Surg* 2012;3(3):111-115.
15. Bak Y, Merriam M, Neff M, Berg DA. Novel approach to rectal foreign body extraction. *JSLS*. 2013;17(2):342-345.
16. Yildiz SY, Kendirci M, Akbulut S, Ciftci A, Turgut HT, Hengirmen S. Colorectal emergencies associated with penetrating or retained foreign bodies. *World J Emerg Surg*. 2013;8(1)
17. Berghoff KR, Franklin ME Jr. Laparoscopic-assisted rectal foreign body removal: Report of a case. *Dis. Colon Rectum* 2005;48: 1975-7.

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