

CASE SERIES OF RETAINED RECTAL FOREIGN BODIES, AN UNUSUAL FINDING IN INDIA

Sadiq Husain¹, Mohammad Nafees Ahamad¹, Mohammad Aslam², Prashant Kumar Rai³, Nadimul Hasan³, Surbhi Chawla³

¹Assistant Professor, Department of Surgery, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

²Professor, Department of Surgery, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

³Resident, Department of Surgery, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

Received : 24/03/2023
Received in revised form : 30/04/2023
Accepted : 12/05/2023

Keywords:
Foreign Body, Rectum, Retained,
Trans-anal extraction.

Corresponding Author:
Dr. Sadiq Husain,
Email: Sadiqhusain91@gmail.com

DOI: 10.47009/jamp.2023.5.3.243

Source of Support: Nil,
Conflict of Interest: None declared

Int J Acad Med Pharm
2023; 5 (3); 1188-1192



Abstract

Background: Retained rectal FB, with its associated social stigma, is a medical condition that is hesitantly reported in India. FB are often inserted into the rectum for sexual pleasure or habitual usage associated with abnormal psychosocial conditions. **Case Presentation:** We report the management of six cases of retained foreign objects in the rectum seen at a tertiary care centre of India. They were six young male patients. All patients had history, examination and investigations which clinched the diagnosis of a retained foreign rectal body. Successful retrieval of objects including four bottles, one shower handle and one sex toy was done. All underwent successful retrievals without any adverse post procedural complications. The method used for the retrieval of these impacted foreign bodies included trans-anal extraction under sedation in four cases and laparotomy was required in two cases. **Conclusion:** Patients with retained rectal FBs can be managed by trans-anal extraction of FBs under sedation in majority of cases.

INTRODUCTION

Odagiri et al. had reported 684 cases of retained rectal Foreign Bodies (FBs) from the Japanese population.^[1] The majority of reported retrospective case series were from western populations.^[2] Available data for retained rectal FBs are limited in the conservative Asian population, such as India, probably due to underreporting resulting from the attached social stigma with the situation. Embarrassing nature of the condition is also responsible for the delayed presentation to medical facilities. Patients often present late, when symptoms become intolerable, often after exhausting all efforts in self-removal.^[1,3] FB are often inserted into the rectum for sexual pleasure or habitual usage associated with abnormal psychosocial conditions. We discuss six patients with retained FB in the rectum that were treated by the general surgery team at Jawaharlal Nehru Medical College and Hospital, Aligarh Muslim University, Aligarh, India in 2022. The clinical presentation and treatment strategies for safe retrieval were narrated in this case series.

CASE PRESENTATIONS

CASE 1

A 23-year-old male presented with a history of abdominal discomfort and a left-sided abdominal swelling of one day duration. The patient vehemently denied any history of ingesting or inserting any FB into himself. He was unmarried living with his family and denied any history of psychiatric illnesses. The patient was clinically well with no tachycardia or hemodynamic compromise. Upon examination, the abdomen was soft, non-tender and a hard irregular tubular mass was felt over the lower abdomen. There was a palpable mass on digital rectal examination. An abdominal radiograph revealed a cylindrical FB possibly located in the rectum and sigmoid colon. Despite the conflicting history, the abdominal radiograph shown [Figure 1] clearly clinched the diagnosis of an intra-abdominal FB. It was removed successfully trans-anally under sedation with patient in lithotomy position. Post procedure period was uneventful.

CASE 2

A 35-years man presented with complaint of lower abdominal pain for last 1 day. There was no history of vomiting or trauma to the abdomen. He was reluctant in giving history of his symptoms other

than lower abdominal pain. Abdominal examination revealed a soft, mildly distended abdomen with no signs of peritonitis. No lump was palpable in the abdomen. Upon digital rectal examination, a hard edge of an object was felt at about 6cm from the anal verge. On repeated questioning he admitted to the insertion of a vibration device through his anus for sexual pleasures. In this incident, the device migrated too deeply into his rectum resulting in failed self-retrieval. He tried to retrieve the device by digital manipulation and bearing down but was unsuccessful after repeated attempts for one day. Social history revealed the patient was married but was habitual of homosexuality. Physical examination revealed that the patient was hemodynamically stable. An anal tear at the 12 o'clock position was identified, which was consistent with a history of digital manipulation. Proctoscopic examination revealed a broad "plastic vibrator" in the rectum. Successful removal was performed trans-anally with suprapubic pressure and per anal manipulation [Figure 2].

CASE 3

A 29-year-old man presented with anal pain and bloody per-rectal discharge of 8 hours duration. Physical examination revealed an abnormal hard plastic bottle visible through the anal orifice. The patient revealed that there was a cold drink plastic bottle lodged within his rectum. Initial history was conflicting with a suggestion of accidental insertion of a FB. After further questioning, the patient admitted he had a history of habitual FB insertion into his anus for sexual gratification. Social history revealed that the patient was unmarried but had no prior psychiatric illnesses. The patient was clinically well and hemodynamically stable. Upon examination, the abdomen was soft, no masses were palpable, and there was no evidence of peritonism. Per-rectal examination showed a plastic bottle visible from his anus. The patient was managed in a similar manner to Case 1. He underwent examination and retrieval under sedation. The bottle was manually retrieved successfully without significant injuries to the bowel or anal sphincter [Figure 3].

CASE 4

40 years old male patient presented to emergency department with complaint of lower abdominal pain following assault and forceful insertion of a glass bottle into his anus 3 hours back. Patient was hemodynamically stable. On Per rectal examination, a smooth glass bottle was present about 7 cm from the anal verge. Attempt was made to extract the foreign body per anally under regional anaesthesia, but failed due to the broad base and smooth surface of the foreign body. Laparotomy was performed and foreign body which was reaching into the sigmoid colon was pushed downward by "milking" the sigmoid colon and rectum and the glass bottle was

extracted per anally. Post-operative period was uneventful with good faecal continence. [Figure 4]

CASE 5

Similar to case 4, a 34 years male presented with retained soft drink plastic bottle inserted per anal 16 hours back. It was inserted by the patient himself for sexual gratification as he was habitual to it. He tried to remove it by himself but the bottle migrated deep into the rectum.

Patient was hemodynamically stable. On abdominal examination the upper end of bottle was palpable in the suprapubic region. On rectal examination, the lower end of bottle was palpable about 8cm from the anal verge. Per anal removal was tried but failed. Similar to case 4, a suprapubic midline laparotomy (incision enough to accommodate the surgeon's hand) was performed and foreign body which was reaching into the sigmoid colon was pushed downward by "milking" the sigmoid colon and rectum and the plastic bottle was extracted per anally. [Figure 5] Post operative period was uneventful and discharged with psychiatric counselling and endoscopic evaluation.

Case 6

25y/Male habitual of inserting FB per anal for sexual gratification presented with retained FB inserted 7 hrs back. Patient was having pain in lower abdomen and perinium. A plastic FB was visible per anally. Patient was sedated and FB removed per anally. Bleeding was present due to anal mucosal tear, but sphincter tone was maintained. Ano-Rectal canal was packed with gauze. Post op recto-sigmoidoscopy revealed minor rectal mucosal injury.



Figure 1: X-ray pelvis Antero-posterior view (A) and Lateral view (B) showing foreign body (Arrow). Retrieved deodorant bottle from rectum (C) & (D)



Figure 2: A. X-ray of pelvis showing foreign body (Arrow). B. Retrieved foreign body from rectum



Figure 3: Plastic Bottle retrieved from rectum

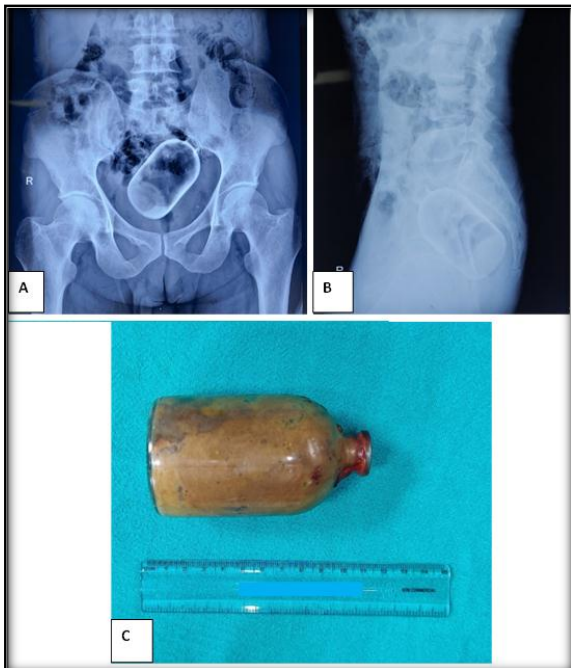


Figure 4: X-Ray showing retained rectal foreign body, Antero-posterior view (A) and lateral view (B). Retrieved foreign body (C).



Figure 5: Upper part of foreign body present in sigmoid colon as visible on suprapubic laparotomy(A). Retrieved Plastic soft drink bottle (B & C)

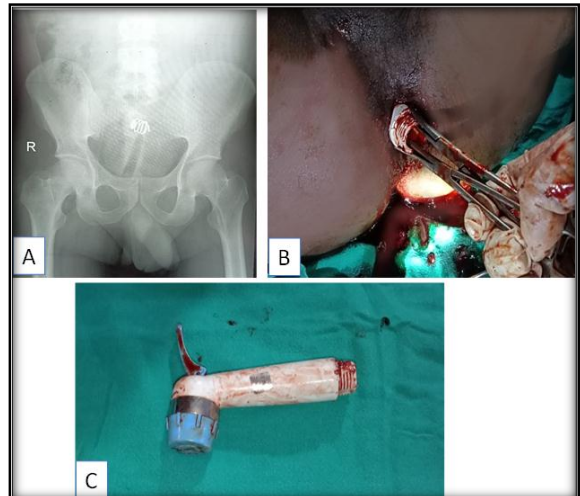


Figure 6: X- ray showing radio opaque shadow in pelvis (A). Foreign body being retrieved trans-anally (B). Retrieved faucet (C)

DISCUSSION

The exact incidence of rectal FB insertion is not known due to the embarrassment and social stigma associated with the condition; although based on current case reports around the world, it is most common in young men with male to female ratio of 2:14 with most cases being reported in the Western society than Asian population⁵. Generally, patients seek medical care after multiple futile attempts of self-retrieval of FB which results in anal injuries. The mean time of presentation after insertion in study conducted by Coskun et al was 23 hours, with a range of 6–72 hours.⁶ In our case series, the average duration of presentation was within 24 hours. Previous case series have observed a bimodal age trend for retained FB. Our group of patients were of young age group. Rectal FBs are either inserted voluntarily or involuntarily. FBs may be inserted voluntarily for sexual or non-sexual purposes. The most common non-sexual purpose is for rectal stimulation to alleviate constipation.^[1] Five cases in our series were admitted due to insertion of the rectal FBs for sexual gratification

and one was a case of assault. The FBs found in the rectum were not limited to sex toys such as those seen in Case 2. Common objects found in other reported series include common household objects such as bottles and glasses.^[1] These objects were seen in Cases 1, 3,4,5 and 6 in our series. Other reported objects were cucumbers, carrots, wood, rubber objects, light bulbs, fluorescent light tubes, axe handles, broomsticks, utensils and decorative ornaments. These objects have irregular surfaces with attached flanges or cords that could prevent them from being readily retrieved from the rectum.^[1] In Cases 1,3,5 and 6, the men were habitual of inserting plastic bottles for sexual gratification. In general, the patient's evaluation begins with an accurate history-taking to identify the cause of the FB insertion and the nature of the impacted object. The examination of the patient should be performed in a professional and non-judgmental manner in order not to upset the patient. Sometimes the rectal digital examination does not reveal the FB as it may have migrated proximally to the Sigmoid or Descending Colon. Occasionally, it may be palpable on abdominal examination mimicking a tumour. A plain abdominal radiograph is an important diagnostic modality to clinch the diagnosis of a retained FBs unless the object is radiolucent in nature.^[7] In addition, an abdominal CT scan is useful to provide information on associated complications of rectal and colonic perforations.⁸ Outpatient bedside extraction in the emergency room have a success rate of 75%.^[1] If bedside retrieval fails then extraction of FB is performed under sedation, regional or general anaesthesia. For extraction of FBs, a tailored approach is required according to the nature of objects retained. These can be removed trans-anally under direct vision, through endoscope or by open surgery. The preferred method utilized for extraction depends on the size and shape of the retained object (sharp vs. blunt, smooth vs. rough), the site (distance from anal verge) and the presence of bowel perforation or peritonism. If the FBs are located proximally, it is safe to extract the object via an endoscopic approach.^[1] With regards to sharp or oddly shaped objects, a surgical approach (laparotomy and FB removal via enterotomy) is the preferred choice. Trans-anal extraction is the preferred method for low lying rectal FBs with smooth edges and short duration of entrapment.^[4] Four of our patients were successfully managed by trans-anal extraction alone under sedation as the foreign bodies were low lying and easy to hold with instruments. In two patients FB migrated proximally and therefore required pushing distally via "milking" of recto-sigmoid with hand inserted through suprapubic incision. Enterotomy was not required as the FB were delivered out per anally owing to their smooth surface. After successful retrieval of a retained rectal FB, an endoscopic assessment is mandatory to assess the involved bowel for mucosal injuries.^[1] As most of these

patients are habitual of FB insertion, appropriate advice, psychiatric evaluation and counselling should be offered to prevent future recurrences. While discharging, the patients are provided with the information regarding the possible sign and symptoms of delayed bowel perforation and to seek early medical care.

Post extraction follow up is required for delayed bowel perforation and anal sphincter injuries. Complications from sphincter damage may include incontinence, fistulas, and stenosis.⁹ None of our patient presented with peritonitis or symptoms suggestive of anal sphincter injury in a follow up period of 3 months. In anal sphincter injuries, wound is left open as tissues are often contaminated at the time of injury. If incontinence is present beyond 3 months of follow up, anal sphincter repair is performed.¹⁰ A review from Kyle et al. proposed a well-designed algorithm for treatment of rectal FBs.^[2] The management encompasses initial evaluation, extraction technique (trans anal, endoscopic, and operative) and post-extraction care. Factors that may influence the choice of rectal FBs extraction technique include presence of peritonitis, evaluation by digital rectal examination and endoscopic assessment.^[2]

CONCLUSION

The true incidence of retained rectal FBs in India remains unknown due to underreporting. Most of the patients present late to the hospital after repeated unsuccessful trials of self-extraction of FBs when the symptoms become intolerable. Thorough history and clinical examination lead to accurate diagnosis in the majority of cases, some requires radiography for diagnosing the condition. In majority of cases objects can be safely extracted via the trans-anal approach. In a few patients, FB may migrate too proximally to colon which requires endoscopic extraction or an explorative laparotomy. Laparotomy is also performed if bowel perforation is anticipated. Early presentation to medical facility improves the outcome and eliminates the need for invasive procedures. Surgical repair is performed if anal sphincter function impairment is present beyond 3 months.

REFERENCES

1. Odagiri H, Yasunaga H, Matsui H, Fushimi K, Iizuka T, Kaise M. Difference in Outcomes of Rectal Foreign Bodies between Males and Females: A Retrospective Analysis of a National Inpatient Database in Japan. *Digestion*. 2015;92(3):165–70.
2. Cologne KG, Ault GT. Rectal Foreign Bodies: What Is the Current Standard? *Clin Colon Rectal Surg*. 2012 Dec;25(4):214–8.
3. Chor Lip, H.T., Huei, T.J. and Tuan Mat, T.N.A., 2017. Removal of an impacted rectal FB - avoiding laparotomy. *Sri Lanka Journal of Surgery*, 35(3), 25–26.
4. Ayantunde, A. A., & Unluer, Z. (2016). Increasing trend in retained rectal foreign bodies. *World Journal of Gastrointestinal Surgery*, 8(10), 679.

5. Akhtar, M., & Arora, P. (2009). Case of unusual FB in the rectum. *Saudi Journal of Gastroenterology*, 15(2), 131.
6. Coskun A, Erkan N, Yakan S, Yildirim M, Cengiz F. Management of rectal foreign bodies. *World J Emerg Surg*. 2013 Mar 13;8(1):11.
7. Kit Fai Lee. John Wong, Paul BS Lai. Radiolucent FB visible on plain radiography *Can J Surg*. 2008 Aug; 51(4): E87-E88
8. Emi Sanjo, Fumihiko Tamamoto, Shoichi Ogawa, Maiko Sano, Tetsunori Yoshimura, Miwako Nozaki, "Unexpected Radiologic Findings for a Casting Type of Radiolucent Colorectal FB Composed of Polyurethane Foam", *Case Reports in Radiology*, 2016, 4987105.
9. Rodríguez-Hermosa JI, Codina-Cazador A, Ruiz B, Sirvent JM, Roig J, Farrés R. Management of foreign bodies in the rectum. *Colorectal Dis* 2007;9(6):543–548
10. Kurer MA, Davey C, Khan S, Chintapatla S. Colorectal foreign bodies: a systematic review. *Colorectal Dis* 2010;12(9):851–861