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The Uniquities of Rectal Foreign Bodies

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Abstract

Background: Rectal foreign bodies often pose a challenging diagnostic and management dilemma that begins at the initial evaluation in the emergency room and continues till the post-extraction period. Objects can be inserted in to the rectum for diagnostic or therapeutic purposes, self-treatment of anorectal disease, during criminal assault or accidents, or for sexual purposes. Numerous objects, including various fruits and vegetables, nails, light bulbs, bottles, body spray cans have been described as retained rectal foreign bodies. Patients with rectal foreign bodies are embarrassed and often reluctant to state the true nature of their emergency room visit. As a result, they may present with a chief complaint of rectal pain or abdominal pain, bright red blood per rectum, inability to have a bowel movement, and rectal mucous leakage.[1] A systematic approach to the diagnosis and management of rectal foreign bodies is essential. The objective of this study is to present 2 unusual cases of accidental rectal foreign bodies in adults and case specific clinical presentation and surgical management.

Methods: Case Series involving two unique cases of rectal foreign body received in emergency room of Sri Ramachandra Institute of Higher Education and Research and the surgical management of those cases.

Results and conclusion: The social stigma surrounding self-introduced rectal foreign bodies leads to delay in seeking treatment. Rectal foreign bodies have a good chance of causing bowel perforation and hence post foreign body removal observation is vital to detect and prevent life threatening complications of perforation. If there is any doubt of perforation, a computed tomography scan with rectal contrast or rectal enema with water-soluble contrast can detect this potentially life-threatening complication. The use of minimally invasive operative techniques for impacted rectosigmoid foreign bodies has

been described which is a combination of laparoscopic downward milking of the object followed by per anal extraction but it is recommended only for smooth foreign bodies and if successful, avoids the need for a full laparotomy and provides the benefit of early discharge from the hospital.[2] The presentation of rectal foreign bodies is at most times unpredictable due to the uniqueness of each case and surgical management should be customised according to the circumstance.

Keywords: Foreign bodies in rectum, Perforation secondary to rectal foreign body, Management of rectal foreign bodies.

Introduction

Rectal foreign bodies often pose a challenging diagnostic and management dilemma that begins at the initial evaluation in the emergency room and continues till the post-extraction period. Objects can be inserted in to the rectum for diagnostic or therapeutic purposes, self-treatment of anorectal disease, during criminal assault or accidents, or for sexual purposes. Most objects are introduced through anus but sometimes a foreign body is swallowed, passes through the gastrointestinal tract, and is held up in the rectum. Numerous objects, including various fruits and vegetables, nails, light bulbs, bottles, body spray cans have been described as retained rectal foreign bodies. Because of the wide variety of objects and the variation in trauma caused to local tissues of the rectum and distal colon, a systematic approach to the diagnosis and management of rectal foreign bodies is essential.

Aim: To present 2 unusual cases of accidental rectal foreign bodies in adults and case specific clinical presentation and surgical management.

Materials and Methods

A case series involving two unique cases of rectal foreign body received in emergency room of Sri Ramachandra Institute of Higher Education and Research and the surgical management of those cases.

Case 1

A 27 year old male came to the OPD with chief complaints of passage of urine in both urethra and anal orifice for past 4 months. Complaints of hematuria on and off for past 4 months. The patient 5 months ago has sustained trauma (accidental fall from a tree) and injury to the perineum and a foreign body (tree branch) entered his rectum. Foreign body removal was done at a medical centre and two weeks later he noticed the excretion of tiny particles in urine. He presented with history of burning micturition present on and off. Patient had no complaints of difficulty in defecation, fever, abdominal pain, abdominal distension, constipation.

Abdominal examination was unremarkable and on per rectal examination an induration present anteriorly in the rectovesical pouch and perineal excoriation present. CECT whole abdomen revealed ill-defined 6.6*2.4*3.8cm sized hypodense foci with central air foci and heterogenously enhancing thick irregular wall in rectovesical space. Loss of fat plane between posterior bladder wall and anterior rectal wall with no definitive evidence of fistulous communication between rectum and bladder.

Laparoscopic drainage of rectovesical abscess with foreign body removal was done under general anaesthesia. Intraoperatively, an abscess cavity noted in rectovesical space and opened and 15ml of pus drained. Abscess cavity had no communication with rectum or bladder; no demonstrable fistula. Foreign body (wooden piece) 4*2 cm present in the rectovesical space.

Fig. 1: Extracted wooden fragments

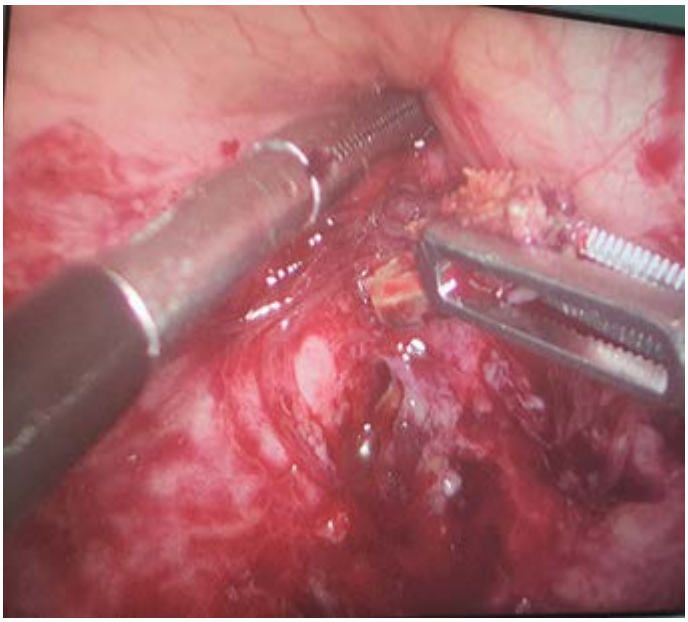

Fig.2: Image showing extraction of foreign body using laparoscopic instruments.

Case 2

A 25 year old male came to ER with chief complaints of accidental entry of toilet brush into anal canal. Alleged history of slip and fall following which there was entry of toilet brush into the anal canal. An attempt to remove the foreign body was made by himself but abandoned due to pain and he was referred here from another hospital 5 hrs after the incident. Patient has no complaints of fever, abdominal distension, vomiting.

Abdominal examination was unremarkable and per rectal examination revealed a foreign body (Toilet brush) present. A gentle attempt to remove the foreign body done but abandoned due to pain.

Fig. 3: Rectal foreign body (Toilet brush)

Preoperative imaging included CECT whole abdomen which revealed a foreign body extending proximally upto the rectosigmoid junction and evidence of perforation. Emergency diagnostic laparoscopy with foreign body removal from anal canal under general anaesthesia was done. Postoperatively he continued to have lower abdominal and perineal pain for which a contrast enhanced CT abdomen and pelvis was done . Breach seen in the left postero-lateral wall of lower 1/3rd of rectum (approx. 4.9 cm from the anal verge) with airpocket and thin rim of fluid tracking along perirectal space. Diagnostic laparoscopy was done and converted to exploratory laparotomy (minimal feculent free fluid was noted in abdomen) with diversion colostomy. Perforation noted at rectosigmoid junction and primary closure done and sigmoid loop diversion colostomy done.

Results

The above cases depict unique scenarios of rectal foreign bodies which may be complicated by perforation and peritonitis. Management should be considered according to case, proper pre-operative imaging and observation for

postoperative complications. The patients recovered well postoperatively and follow-up after discharge revealed no further complications.

Discussion

The social stigma surrounding self-introduced rectal foreign bodies leads to delay in seeking treatment. Diagnostic laparoscopy helps in assessment of extent of injury and planning for proper foreign body removal and surgical repair if needed. Rectal foreign bodies have a good chance of causing bowel perforation and hence post foreign body removal observation is vital to detect and prevent life threatening complications of perforation. If there is any doubt of perforation, a computed tomography scan with rectal contrast or rectal enema with water-soluble contrast can detect this potentially life-threatening complication. The American Association for the Surgery of Trauma Rectum Injury Scale may be used to assess injury from rectal foreign bodies, although originally developed for use in penetrating and blunt trauma, use for inserted foreign bodies is also appropriate.[3] Frequently they can be removed in the department through the trans-anal approach. However, this often is not well tolerated by the patient or can force the foreign body more proximal.[4] There are many therapeutic options in patients without signs of perforation: manual extraction, endoscopic extraction, TAMIS extraction, laparoscopic or open advancement with transanal extraction, and laparoscopic or open transmural extraction.[5] Patients with signs of toxicity including fever, hypotension, or severe pain should be managed by surgical exploration. If the perforation is easily identified, good-quality tissue is present, and there is a lack of significant contamination, a primary repair may be performed. However, for significant pelvic sepsis, a large amount of contamination, and in the presence of poor-quality tissues, a diversion and drainage technique should be performed with debridement of the source. The presentation of rectal foreign bodies is at most times unpredictable due to the uniqueness of each case and surgical management should be customised according to the circumstance.

Conclusion

The above case series shows unique presentations of rectal foreign bodies and complication arising from it. The management of rectal foreign bodies also has been dealt with. Case specific management according to the characteristic of the foreign body, its location and methods of extraction should be contemplated before attempting removal. Proper pre-operative imaging and post extraction observation for complications is also vital in the recovery process.

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