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Successful Transanal Removal of a Rectal Foreign Body: A Case Report

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Abstract: ***Rectal foreign body is not an uncommon presentation in the surgical emergency. Its incidence is increasing especially in the Asian urban population. Patients are embarrassed and reluctant to seek medical care thereby delaying management. They have a varied presentation and depending on the size, position of the foreign object and whether there is rectal perforation or not, different approaches may be chosen to remove it. The diagnosis may be confirmed by plain abdominal radiographs and rectal examination, CT scan should be advised without a second thought to rule out perforation. Transanal removal is only possible for very low - lying objects, while patients with high - lying foreign bodies usually require an operative intervention. An early decision of laparotomy should only be made after subjecting the patient to suitable investigations to determine exactly the localization of the object, in order to avoid any inadvertent damage to the adjoining vasculature as well as anal incontinence. Case Presentation: We report the case of a young adult male who presented in the emergency department with an alleged history of accidental insertion of a deodorant bottle per rectum. Transanal removal was successful under spinal anaesthesia. Conclusion: A careful history and physical examination with a high index suspicion of perforation is necessary. A creative approach to removal and appropriate short term follow - up to detect delayed perforation are important in a case of retained rectal foreign body.***

Keywords: Rectal foreign body, conservative removal of rectal foreign body, foreign body removal,transanal removal

1. Introduction

The earliest report of a foreign body in the rectum was in the 16th century by Haft and Benjamin [1]. The incidence of rectal foreign bodies is highest in East Europe [2]. Reluctance to seek medical help and vague history often makes diagnosis difficult. Patients themselves would have made multiple unsuccessful attempts to remove the foreign body.

2. Case Report

In this article, we report the case of a 41 - year - old male who came in the emergency surgery casualty of our institute with an alleged history of fall in the bathroom which accidentally led to insertion of a deodorant bottle lying on the floor. He complained of pain in lower abdomen and anal region associated with discomfort with no history of bleeding per rectum or urinary symptoms. Patient denied inserting the bottle himself nor any such previous history for sexual gratification.

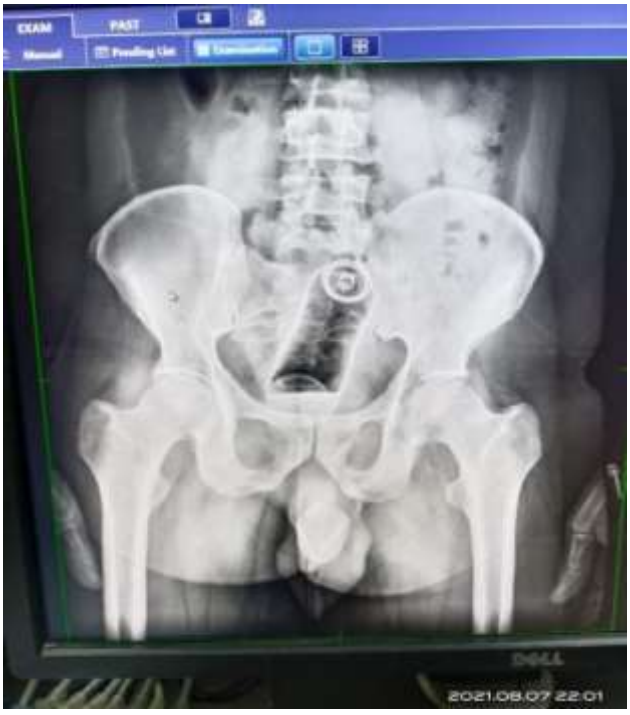

Figure 1: Plain X - ray of the abdomen showed a foreign body in the rectum

On examination, he was stable vitally and clinically with increased bowel sounds on auscultation but there were no

signs suggestive of peritonitis. On digital rectal examination, anal tone was found to be poor. The lower end of the deodorant bottle was palpable per rectally around 4 - 6 cm from anal verge. The upper end of the object could not be felt. There was no active bleeding per rectum. For better delineation of the anatomy and check for any signs of extraluminal air foci to rule out perforation caused secondary to the foreign body, Non - Contrast Enhanced Computed Tomography (NCCT) scan of the abdomen and pelvis was done.

After the routine blood investigations and seromarkers, patient was taken in the emergency OT for a trial of trans anal removal. Under spinal anaesthesia, patient was given a lithotomy with a reverse Trendelenburg position. We were able to extract the object transanally manually under anaesthesia. Consequently, unwanted laparotomy was avoided and foreign body retrieved carefully without inflicting injury over bowel mucosa. The postoperative period was uneventful. A repeat CT scan was done on day 2 to ensure no inadvertent perforation while manual removal. Psychiatric consultation was also sought for the patient.

He was discharged after 3 days with advice to follow up in Surgery and Psychiatry OPD.

Figure 3: Intraop photo of trans anal removal of the foreign body.

3. Discussion

It appears through various medical literatures, foreign bodies inserted in the rectum are usually for sexual gratification or non - sexual purposes as is the case of in body packing of illicit drugs.[4, 5] Men have the higher incidence compared to women and the rectum and sigmoid colon are the commonest site for the lower gastrointestinal tract foreign bodies.6

A detailed clinical history and physical examination are essential for the diagnosis and management of these patients. The patient may present in varied ways ranging from asymptomatic cases to florid peritonitis which depends upon the type of rectal foreign bodies, method of insertion, duration and presence of non - professional intervention to remove these bodies. The most common presentation is complaint of anal pain and bleeding (66.7%) and unsurprisingly a history of anal introduction is present only in 33.3% cases.[1, 2] A careful abdominal examination should be performed to assess signs of peritonitis or ability to palpate the object per abdomen.

Eftaiha et al classified foreign bodies in rectum as high lying or low lying depending on its relation with rectosigmoid junction.7 Objects lying above recto - sigmoid junction are considered high lying and are difficult to remove per - rectally even with procto - sigmoidoscope. Similarly Kingsley et al also reported that those foreign bodies in low or mid rectum up to a level of 10 cm can be most often removed transanally while those above 10 cm may require laparotomy for retrieval.8
Plain X - rays of abdomen and pelvis is mandatory to determine the presence, number, shape, size, location and direction of foreign body. CT scan must be done to confirm foreign body if X rays cannot reveal it. The patient evaluation should include an abdominal and rectal examination. Low lying foreign bodies will be palpable per rectal but if above the recto - sigmoid junction or more than ten centimetres from the anal verge, they may only be palpated on abdominal examination. High suspicion of the possibility of a large bowel perforation should be maintained in delayed presentations ([14, 15]). Plain abdominal radiography or water soluble contrast enemas may be helpful to localise the object.

Bedside transanal removal is successful in 60 - 75% cases [[10]]. Prior to the removal of the foreign body, it is important to keep the anal sphincter lax by pudendal nerve block, spinal anesthesia or intravenous conscious sedation [[1]]. The patient is kept in high lithotomy in reversetrendelenberg position so that the weight of the intra - abdominal contents aids in extraction [[1]]. After sufficient lubrication, the anal canal should be gently dilated to three finger breadths. Manual removal is possible if the object is easily palpable. If this fails, procotscope should then be inserted and extraction should be tried with clamps, Foleys catheter for smooth foreign bodies, SengstakenBlakemore tube, obstetric forceps or vacuum extractor. Foleys catheter helps to break the vacuum seal created by objects in the rectal vault. Simultaneous suprapubic or sigmoid pressure should be applied to move the object caudally and prevent cephalad

migration with difficult to grasp objects [16]. Valsalva manoeuvre is also helpful [10].

If trans anal and endoscopic approaches fail to retrieve the foreign object or there are peritoneal signs the patient needs to be taken for surgery. Lake et al and Yaman and their colleagues suggested predictors for surgical intervention which respectively included foreign bodies which are larger than 10 cm, hard or sharp, or located in the proximal rectum or distal sigmoid.9, 14 The first step is to assess the sigmoid distally to rule out transmural injury. Then an attempt to push the foreign body into the rectum for trans anal removal should be tried. If the orientation and shape of the object are unfavorable, a colotomy can be made and the item can be extracted through the peritoneal cavity. Bowel closure can be done primarily.

However, Laparotomy should be considered as primary method of treatment if patient presents with impacted foreign body at a higher level or with signs of peritonitis, perforation or pelvic contamination. In few of these cases, diversion colostomy and reversal after 6 weeks may be deemed necessary.8

Failing to remove the foreign object immediately subjects the patient to multiple complications which increases the risk of morbidity and mortality on removal. n. Patient is observed for 24 hours after removal of the foreign body to detect any rectal perforation. Digital rectal examination is done to check the mucosa for ulcerations and anal sphincter tone. Procto - sigmoidoscopy has been considered standard following removal to assess any mucosal abnormalities. Lake et al, however, described endoscopic examination in only less than half of cases, and only 16% of these revealed any mucosal abnormalities with no perforations. It was concluded that significant injury following removal of a foreign body was not likely if it was not present on presentation[10].

All patients should also undergo psychological evaluation to avoid similar episodes in the future.

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