Case Reports

Rectal Foreign Body: A Surgical Challenge

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Abstract

Rectal foreign bodies present the modern surgeon with a difficult management dilemma. Reluctance to seek medical help and to provide details about the incident often makes diagnosis difficult. Management of these patients may be challenging, as presentation is usually delayed after multiple attempts at removal by the patient themselves. Here we present a case of 35 year old male who presented in emergency with history of assault and forceful insertion of a glass bottle high up in his rectum.

Introduction

Foreign body insertion in rectum has been extensively described in the surgical literature, with the earliest report dating back to 16th century. Whether done for sexual gratification or not voluntarily or accidentally, the reported incidents of rectal foreign body is rather rare with only isolated published case reports or case series.

Management of patients with rectal foreign bodies can be challenging and a systematic approach should be employed. The majority of cases can be successfully managed conservatively, but occasionally surgical intervention is warranted. The management emphasis is on type of foreign body, host anatomy, time from insertion, and ruling out rectal and colonic perforation and in case of associated injury amount of local contamination.

In this report we describe a case of a male who presented with glass bottle in the rectum and in whom traditionally employed conservative method failed and surgical method was employed for extraction.

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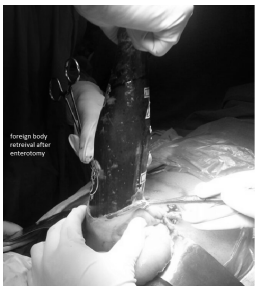
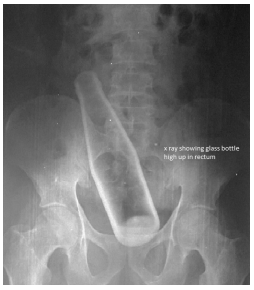
Case Report

35 year old male presented with alleged history of assault by a group of people with insertion of a glass bottle in the rectum. He presented to our casualty around 12 hours after the incident. Vital signs were normal. Abdomen was soft, non-distended and non-tender to palpation. Foreign body was palpable in lower abdomen. X ray pelvis showed the bottle in lower abdomen and pelvis. Per rectal examination performed after the X-ray of the abdomen, revealed the base of the glass bottle, with intact sphincter tone, no per rectal bleeding, no evidence of tears in the rectal mucosa. Manual removal by holding the base of the bottle was impossible because of the broad base and its position being higher up. Moreover, the bottle could not be manipulated upside down in the rectum due to its large size. Trans-anal removal of foreign body under sedation in lithotomy position was attempted but was fruitless. Decision was taken to do exploratory laparotomy. Abdomen opened by infraumbilical incision, distal sigmoid and rectum identified. Upper end of bottle was palpable, but was found to be tightly wedged in pelvis. Trans-anal retrieval by pushing the bottle distally in rectum along with simultaneous per rectal manipulation was attempted but failed. Thus finally enterotomy was created through which the

bottle was retrieved. Enterotomy site was closed with mersilk 2-0 in 2 layers. Post-operative course was uneventful. Patient discharged on fifth day following surgery.



X- Ray showing glass bottle high up in rectum



Intra-Operative photo showing Enterotomy with glass bottle inside

Discussion

In today's world both in and outside India rectal foreign bodies, though rather infrequent, are no longer considered as clinical oddities in emergency care medicine. It appears that their incidence is increasing, specifically in urban population.[1,2] The literature is replete with numerous case reports and case series of rectal foreign body in patients of all ages, genders and ethnicities.[3] Majority are male in their 3rd and 4th decades.[1,2] The foreign body commonly reported were plastic or glass bottles, cucumber, carrots, wooden or rubber objects etc. with intentions varying from sexual gratification to attempts at removing impacted faeces to assault. Rarely such can occur due to accidental events. The object length varied between 6 and 15 cm and larger and sharper object were prone for causing complications.[4]

Patients usually presents with pelvic pain, bleeding per rectum or per rectal mucus discharge. Abdominal pain usually denotes perforation above the level of peritoneal reflection. Patients may even present with incontinence or bowel obstruction as the presenting system.

Physical examination is centred on ruling out peritonitis. Rectal examination should be performed only after an X-ray of the abdomen to rule out a sharp object which may harm the examiner. It should include assessment of the distance of the rectal foreign body from anal verge and sphincter competency. Rigid proctoscopy is done for foreign bodies high up in rectum, when digital examination is insufficient to assess degree of rectal mucosal injury and to assess the foreign body and its distance from anal verge. Hard objects are potentially traumatic and tend to migrate upwards.[5] An attempt at manual extraction trans-anally should be made. Intravenous conscious sedation may be needed to keep patient relaxed, decrease anal sphincter spasm, improve visualisation and thus improves chances of successful retrieval.[6] Obstetric forceps can be used for extraction of foreign body with broad base having the patient perform Valsalva manoeuvre during the attempt may facilitate the process.[7,8] Colonoscopic removal is also reported with good success for smaller size objects.[9] However limited studies in literature restrict the definition of major role of

colonoscopy. Laparotomy is only required in impacted foreign bodies and which are larger than 10 cm, hard or sharp, or located in the proximal rectum or distal sigmoid[2,5] and or associated with perforative peritonitis.

Even with laparotomy the aim should be trans-anal removal by trans-abdominal and trans-anal manipulation. Postretrieval colonoscopy is mandatory to rule out colorectal injury upon successful trans-anal extraction.[10] If attempts at trans-anal retrieval has failed then an enterotomy may need to be created. In cases of foreign bodies causing perforation closure of perforation with proximal diverting colostomy can be done. Diversion should be specially considered in patients with delayed presentation, significant faecal contamination, signs of sepsis and haemodynamic instability. A case has been reported where symphysiotomy has also been done even when trans-abdominal approach failed.[10]

However in our case we could remove the impacted glass bottle by creating an enterotomy after repeated failed attempts at trans-anal retrieval.

So to conclude we would like to emphasise the fact that rectal foreign body even in today's modern era with vast literature for its management available still creates a dilemma in the minds of the surgeon, as every patient presents with a different foreign body with different time since insertion, challenging the surgeon to use innovative therapeutic approaches for its extraction. And to end I would like to quote a statement from Bailey and Love's textbook Short Practice Of Surgery "The variety of foreign bodies that have found their way into the rectum is hardly less remarkable than the ingenuity displayed in their removal."

References

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