

RECTAL FOREIGN BODIES

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INTRODUCTION

Anorectal simulation and penetration is a relatively common sexual practice. Digital and penile penetrations are the most common forms. A segment of the homosexual population practices fist fornication, a technique that involves insertion of fist and arm into the anorectum. This activity can result in severe injury to the anal sphincter and perforation of the rectum and colon.¹ Anorectal foreign body is no longer a medical oddity, rather it is encountered frequently.^{2,3,4} The vast majority of objects are inserted by; self introduction in children or psychiatric patients, in victim of assault and as a result of sexual gratification. Iatrogenic foreign bodies include thermometers, enema tips and catheters. The objects placed as a result of assault, trauma or eroticism consist of a diverse collection including sex toys (dildos), tools and instruments, bottles, cans, jars, pipes and tubing, fruits and vegetables, stones, light bulbs and flash lights.⁵

The level of entrapment will help to stratify the likelihood of transanal extraction. Those 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.⁶ General and colorectal surgeons are likely to encounter patients with retained foreign bodies particularly if they practice in communities with a high prevalence of penetrating anorectal stimulation.

Numerous instruments have been used to assist extraction, including obstetric forceps, tenaculum, ring forceps and a vacuum extractor. A Foleys catheter with balloon can also assist removal. Even a Sengstaken-Blackmore tube has been used. Use of a large bore operative proctoscope may also help in retrieval.^{7,8}

Anal dilation may be necessary and in rare instances sphinctrotomy may be required. Additionally, all the patients should be referred for psychological evaluation to avoid similar problem in future and to minimize psychological trauma in assault cases.

This review summarizes our exposure and medical literature to clarify the treatment strategy.

EVALUATION

Individuals present with a host of complaints like anorectal pain and rectal bleeding (proctorrhagia) (66.6%) and unsurprisingly a history of anal introduction is given only in 33.3% cases and difficulty in passing stools (dyschezia).⁹

- Embarrassed, apprehensive and uncomfortable patient may deny ill doing or give out landish explanations claiming to have fallen on the foreign body which miraculously disappeared.
- The history should include the nature of device inserted into the rectum and the interval between insertion and presentation at hospital and how many times attempts have been made to retrieve the object.
- A history of previous sexually transmitted disease may suggest the possibility of infection with human immunodeficiency virus, syphilis and hepatitis B or C.
- Presence of fever, abdominal tenderness and signs of peritonitis suggest the possibility of perforation.
- Rectal examination will identify the presence of a foreign body in the distal rectum. A foreign body above the recto sigmoid junction may not be palpable. Rectal examination and anosopic evaluation can reveal an injury to the anal canal or sphincter mechanism.
- Laboratory investigations are performed to determine the possibility of rectal perforation. An elevated white cell count may indicate it.
- An abdominal radiograph will demonstrate the size, shape, location, number and direction of foreign bodies. Small air bubbles along the psoas muscle suggest retroperitoneal rectal perforation. This sign is very subtle and may not be present. An upright chest x-ray should be carefully examined for the presence of free air under the diaphragm associated with an intraperitoneal rectal perforation.
- A surgeon who is called to see a patient with a retained foreign body must answer two

questions. Does the patient have rectal perforation? Can the foreign body be removed transanally in the emergency department without a formal regional or general anesthesia?

EMERGENCY ROOM PROTOCOL

The majority of objects are easily removed in emergency department. Correct position is important. Relaxation is essential and intravenous sedation is often necessary to retrieve the foreign body. Local anesthesia like perianal block with 0.5% lidocaine injected into the anal sphincters can assist with relaxation maneuvers and analgesia. Perianal subcutaneous infiltration of 10 ml is followed by a four quadrant sub-mucosal infiltration of anal canal. Conscious patient may be able to assist with valsalva maneuvers. Foreign body should be visualized with an anoscope or proctoscope, grasped with tenaculum and gently extracted. If the object is not palpable on rectal examination, aggressive attempts at extraction in the emergency room should not be made. Most patients with retained foreign bodies can be treated by trans-anal extraction of the object under the regional or general anesthesia in lithotomy position. Anal dilatation may be necessary in rare instances. Lateral internal sphincterotomy may be required and can be safely performed without any long-term alteration in continence. A complete anal sphincterotomy with immediate repair have also been reported with success when all other measures fail.^{1, 2, 9}

Foley's Catheter Technique: Insufflation of air through Foley's catheter (20-22 Fr) inserted along side the object in to the rectum and lower sigmoid colon can break the negative suction. The balloon of catheter can then be inflated with 30-35 cc of normal saline and gently pulled back to bring the object down to the rectum to be retrieved. It is a good way to break the negative suction pressure.⁶

Manual Extraction: When foreign body migrates to sigmoid colon, an ideal instrument would be able to grasp a large object with out damaging the bowel wall. No such instrument exists. The surgeon's hand is the best surgical instrument. Eflaiha¹³ reported that after comparing the diameter of female and male hands in 20 surgeons, the mean diameter in the females was 5.5 cm and males 7 cm and also compared the diameter of transanal endoscopic microscopy (TEM) device, the female hand was 1.7 cm greater as compared to 3.2 cm for male hands and concluded that a female hand is a useful instrument for retrieving colorectal foreign bodies. The hands of a lady may have the advantage without damaging the integrity of the

anal sphincter and smallest member of the team a female surgeon may be used to retrieve the foreign body transanally. Female surgeons may have attributes that are advantageous to a surgical carrier such as being sympathetic, calm and organized.¹⁰

SURGICAL INTERVENTION

Intraperitoneal colonic or rectal perforation is easy to detect with free air under the diaphragm and obvious peritoneal signs on physical examination while retroperitoneal perforation is difficult to diagnose. There is usually a delay of few days before the pelvic and perineal sepsis becomes evident. Appropriate treatment can then be carried out.^{9,11} Extremely rarely laparotomy is necessary to remove an object as a primary method of treatment with a high lying foreign body in the rectum.¹ This may allow trans-abdominal manipulation and transanal extraction.^{2,7,8,9,11,12,13} It is mandatory if signs of rectal perforation and peritonitis are present. Repair of rectal perforation with proximal colostomy is indicated. Sigmoidoscopy, barium enema and third generation cephalosporins should be given before colostomy is performed.¹⁴

WHAT TO DO:

- Plain abdominal radiograph for the nature and location of foreign bodies.
- Abdominal and rectal examination to rule out rectal perforation and peritonitis.
- Sedate the patient with intravenous benzodiazepines or narcotics and place the patient in Sims position.
- When the object is too high to reach or sphincter tightness is present then remove it under regional or general anesthesia.
- Immediate attempt at colonoscopic extraction of foreign body is associated with bleeding or obstruction.
- Observation for 24 hours after removal.
- Rectal perforation requires a diverting stoma.
- Sphincter integrity must be assessed for continence.

WHAT NOT TO DO:

- Do not pressurize the patient to give an accurate history because he may be embarrassed and intimidation will not help.
- Never attempt to extract until patient's anal sphincter is fully relaxed by local, spinal or general anesthesia.

- Never attempt to retrieve the foreign body using instrument in an uncooperative patient because sudden movement can precipitate tearing or perforation.
- Do not discharge the patient having continued pain; observe for signs of peritonitis.

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