Long-Standing Retained Foreign Body in the Rectum

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Abstract

The variety of objects removed from the rectum almost defies imagination. History is always obscure and misleading, the rectum can accommodate almost anything and the variety of rectal foreign bodies matches the ingenuity displayed for their removal. Principles of management include proper location, transanal extraction whenever possible and laparotomy only as a last resort. Prognosis is usually good.

INTRODUCTION

There are various reasons for insertion of a foreign body into the rectum. A foreign body may be inserted by a doctor for diagnosis or treatment like rectal thermometer, enema tubes or anal packs, by the patient for self eroticism or by a third party as a result of assault or sexual activity, but the most common cause for insertion of a foreign body is sexual stimulation. [1] The vast majority of cases of foreign bodies in the rectum does not come to medical attention and is passed or removed by the patient or a friend. The rectum has been known to accommodate a wide variety of foreign bodies like electric bulb, whisky bottle, vegetables, kitchen articles, drinking glass, stones, and vibrators. Countless different objects are introduced in the rectum. Most of the foreign bodies in the rectum are placed through the anal canal but some objects may become arrested in the ano-rectal region after ingestion, specially a fragment of bone swallowed with meat or fish. [2] Physicians should demonstrate a caring attitude and not subject the patient, who is suffering pain and embarrassment, to ridicule. We present a case report of a long-standing retained foreign body in the rectum, which presented as strangulated obstruction of the small intestine.

CASE REPORT

A 45-year-old woman was admitted to the surgical ward with the history of abdominal pain, vomiting, distension of the abdomen and absolute constipation since 5 days. On examination, there were features of acute intestinal obstruction. Scout film of the abdomen showed multiple fluid levels and a plastic tube in the pelvis on the right side (Figure 1). After resuscitation she was taken for exploratory laparotomy. On exploration of the abdomen, a complete situs inversus was found. The liver was on the left side and the sigmoid colon was on the right side with complete inversion of the other viscera as well. There was an ileo-colic fistula between terminal ileum and sigmoid colon, around which a loop of distal ileum had rotated and became gangrenous. A plastic tube was found in the fistulous tract. Gangrenous gut and fistulous tract between terminal ileum and sigmoid colon were resected and end-to-end anastomosis of two loops of ileum was done; the sigmoid end of the fistula was primarily closed. The postoperative period was uneventful.

The patient was suffering from chronic constipation for many years and she used to receive frequent enemata from the local doctor with the help of a plastic tube. Unfortunately the tube ascended up in the rectum and the doctor could not retrieve it. Since then, there were no complaints, the patient did not bother about the retained tube and after 10 years she presented with acute intestinal obstruction caused by retained foreign body.

Figure 1

Figure 1: Scout film of the abdomen showing multiple fluid levels and a plastic tube on the right side in the pelvis

DISCUSSION

In 1941, Holcome performed a post mortem examination on a patient whose abdomen was full of pus and faecal matter. A tennis ball was found in the abdominal cavity surrounded by omentum [2]. Many ingenious methods have been devised to remove rectal foreign bodies (Table-1). The use of Plaster of Paris to remove a glass tumbler, of a gimlet to remove a long stick and of obstetric forceps to deliver a turnip has passed into surgical folklore [345678]. A large stone weighing 850g, 12 x 8.6 x 8.8cm in size was extracted from the rectum of a 30-year-old man using a bone-holding forceps. A light bulb was removed from the rectum using the corresponding light socket attached to the end of a wooden broom handle: by manipulation the socket was screwed on to the bulb. Others have used two Foley catheters, which were extended beyond the bulb to remove it [9]. A glass bottle was removed from rectum by anal dilation and pressure over the anterior abdominal wall, which pushed the foreign body down. [10]

Preston Hughes removed a glass test tube using a Sengstaken-Blackmore tube with the rubber end of the oesophageal tube cut off, inserted through a proctoscope into the test tube and inflated to provide friction on the inside of the tube so that it could be manipulated and extracted from the bowel. The bulging of the balloon below the glass tube helped to dilate the bowel and allowed the tube to slide down easily [11]. Various techniques of rectal foreign body removal by flexible and rigid sigmoidoscope have been described [1213]. Recently, Haugen et al. summarized 245 cases of body packer syndrome in which patients had inserted packets of narcotics in rectum or vagina or had swallowed these objects [14].

Figure 2

Table 1: Some ingenious methods of foreign body removal from rectum

S.NO.	Type of Foreign body	Method of removal
	Glass tumbler	Plaster of Paris
	Long stick	Gimlet
	Turnip	Obstetric forceps
	Large stone	Bone-holding forceps.
	Light bulb	Corresponding light socket attached to the end of wooden broom handle; Foley catheter
	Glass test tube	Sengstaken-Blackmore tube with rubber end of esophageal tube cut off
	High-up foreign bodies	Flexible and rigid sigmoidoscope

Obscure and misleading history should raise suspicion of foreign body insertion. History includes anal pain, vague abdominal discomfort or urinary symptoms. On per rectal examination, a lax anal sphincter and bloody or mucoid rectal discharge are usually present and a low-lying foreign body can be felt by the palpating finger. More severe abdominal pain with signs of peritoneal irritation denotes intraperitoneal rectal injury [15].

Immediate removal of the foreign body is always indicated because leaving a foreign body in place for a prolonged period of time in the hope of spontaneous delivery may lead to potential complications like infection, obstruction, hemorrhage, perforation, abscess formation (perianal, para-rectal), migration of the foreign body, fistulae and presacral phlegmon.[161718]

Principles of management include biplane abdominal roentgenograms to elucidate the location, type, and number

of foreign bodies. If the foreign body is radio-opaque, biplane x-ray of the abdomen will confirm the diagnosis and locate its position; free gas under the diaphragm suggests intraperitoneal perforation of the rectum [19]. A low-lying foreign body will otherwise be demonstrated by rectal examination and proctoscopy. Foreign bodies may migrate high up in the colon, and then sigmoidoscopy or even colonoscopy will be required. But shape, length and probable nature of the foreign body are always better appreciated by multiaxial real-time sonography [20].

Foreign bodies in the rectum are of such a wide variety that no single procedure for their removal can be recommended. Each case represents a special problem in its management. Careless removal is likely to results in more injury than that caused from its insertion. Mechanism of trauma and degree of destruction of the rectum dictate the choice of optimal therapeutic tactics. Whenever possible, transanal extraction of the foreign bodies is to be preferred and laparotomy should be used only as a last resort. In the emergency room, soft and low-lying objects can be grasped and removed but grasping hard objects is potentially traumatic and occasionally results in upward migration [13]. Great care should be taken when extracting the foreign body, so as to avoid its breakage inside the rectum, which would complicate a rather simple problem.

If foreign bodies cannot be removed transanally in the emergency room, these patients must be admitted and the foreign body should be removed under general anaesthesia. The anal sphincter is widely dilated and the foreign body is removed by transrectal or bimanual manipulation. This is usually successful when the foreign body is lying below the sacral promontory. Sometimes a suction device may also help [21]. Proctosigmoidoscopy and in-patient observation must follow removal of foreign bodies to rule out delayed complications like bleeding or perforation. Factors which cause difficulty in extraction of foreign bodies are distal mucosal oedema, colonic negative pressure, acute angulation of the recto-sigmoid and intussusception of distal mucosa [22].

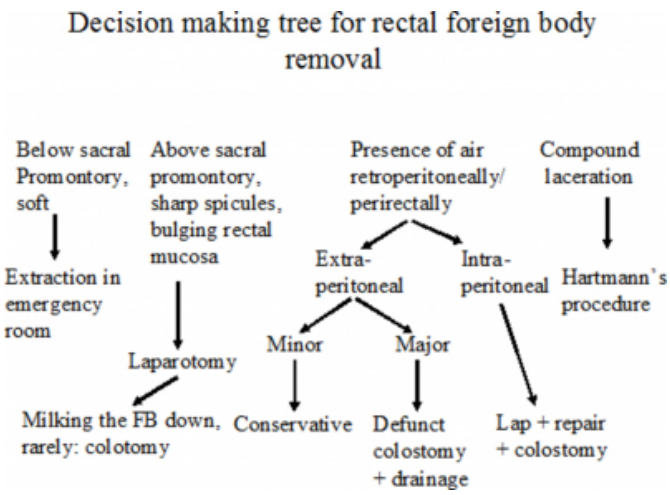
Rarely, a foreign body may ascend in the colon necessitating laparotomy, but the need for laparotomy arises in few cases only. Indications for laparotomy include impaction of the foreign body, especially above the sacral promontory, presence of sharp spicules with risk of perforation, edematous bulging of rectum below the foreign body and presence of retroperitoneal or perirectal air. If the need for laparotomy arises, the patient is placed in abdominoperineal position, the abdomen is opened and the abdominal surgeon milks the foreign body to the perineal surgeon so that it can be removed. Vary rarely, as a last resort; colotomy is required to remove the foreign body.

In major extra-peritoneal injury, defunctioning colostomy is required with extra-peritoneal peri-rectal drainage while antibiotics can help to treat minor extra-peritoneal rectal injury conservatively. Intraperitoneal injury requires formal laparotomy with repair of defect and a proximal diversion colostomy. Later, if contrast study of distal bowel shows healing, the colostomy can be closed. Compound lacerations of the recto-sigmoid junction may need Hartmann's procedure followed by its reversal later at an appropriate time [22] (see flow diagram: Figure 2).

In general, prognosis is excellent in the majority of cases. About 60 to 70% of foreign bodies can be removed in the emergency room. The remaining 30% require an operating room procedure. The need for laparotomy arises in only 4% cases [23].

Figure 3

Figure 2



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References

1. Shah J, Majed A, Rosin D. Rectal salami. Int J Clin Pract 2002; 56:558-9
2. Holcome TE. An unusual cause of death. M J Australia 1941; 1:584
3. Vaughn AM, Martin JA. Foreign body (case knife) in sigmoid. JAMA 1946; 130:29
4. Vaughn AM, White MS: Foreign body (drinking glass) in

the rectum. JAMA 1959; 171:2307
5. Macdonald AP. Foreign body in rectum removed by an obstetric forceps. Practitioner 1961; 186:370
6. Burre SP. Unusual application of obstetric forceps. JAMA 1969; 209:562-563
7. Peet TN. Removal of impacted rectal foreign body with obstetric forceps. Br Med J 1976; 1(6008):500-1
8. Busch DB, Starling JR. Rectal foreign body: case reports and comprehensive review of world's literature. Surgery 1986; 100:512-9
9. Benjamin HB, Klamecki B, Haft JS. Removal of exotic foreign objects from the abdominal orifices. Am J Proctol 1969; 20:413-7
10. Vadlamudi KK, Van Bockstaele PG, Mcmanus JE. Foley catheter in removal of a foreign body from rectum. JAMA 1972; 221:1412
11. Gopal S. A bottle in the rectum. J Ind Med Assoc 1974; 62:24
12. Kantarian JC, Riether RD. Endoscopic retrieval of foreign body from rectum. Dis Colon Rectum 1987; 30:902-4
13. Wigle RL. Emergency department management of retained rectal foreign body. Am J Emerg Med 1988; 6:385-9
14. Haugen DA, Dalaker M Smuggling of narcotics in body cavities. Tidsskr Nor Laegeforen 1994; 114:2501-2
15. Kinsley N, Abcarian H. Colorectal foreign bodies. Management update. Dis Colon Rectum 1985; 28:941-4
16. Falco E, Nardini A. Rectal foreign body principles of therapy. Minerva Chir 1993; 48:1153-6
17. Cohen JS, Sackier IM. Management of colorectal foreign bodies. J R Coll Surg Edinb 1996; 41:312-15
18. Eftaiha M, Hambrick E, Abcarian H. Principles of management of colorectal foreign bodies. Arch Surg 1977; 112:691-5
19. Premuda S, Pagan P, Marcantoni G, Cesari S. Radiopaque abdominal foreign bodies introduced by the enteral route. 4-year experience. Radiol Med (Torino) 1989; 78:351-7
20. Coulier B. Diagnostic ultrasonography of perforating foreign bodies of the digestive tract. J Belge Radiol 1997; 80:1-5
21. Steven K, Lykke J, Hansen TS. A simple suction device for removing foreign bodies in the rectum. Br J Surg 1979; 66:418
22. Bakaleinik M. Foreign bodies of the gastrointestinal tract, surgical considerations. Mil Med 1989; 154:11-4
23. Couch CJ, Tan EGC. Rectal foreign bodies. Med J Aust 1986; 144:512-5

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