CASE REPORT

Severe intraperitoneal injuries due to self introduced rectal foreign body

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Abstract Rectal foreign body insertion is an increasingly common surgical dilemma that requires thorough history, physical examination, radiographs and inventiveness to treat. Additionally the surgeon should demonstrate a sympathetic and caring attitude. This case report highlights the successful surgical management of a rare and bizarre case of extensive intraperitoneal injuries due to a wire inserted by the patient to retrieve a rectal foreign body introduced for sexual gratification.

Keywords Rectal foreign bodies

Case report

A 42-year-old male presented with the history of accidental introduction of a glass bottle per rectum when he allegedly slipped in the toilet and fell on a bottle lying on the ground the previous night. He also complained of severe lower abdominal pain. On general examination patient was uncomfortable and had temperature of 99.4°F, pulse rate of 110/min and blood pressure of 116/78 mm Hg. On local examination a wire was seen protruding from the anus (Fig. 1). The anal tone was lax. There was abdominal distension, generalized tenderness, guarding, rigidity and rebound tenderness signifying generalized peritonitis. These findings were more marked in the lower abdomen. Systemic examination was normal. Hematological and biochemical parameters were normal except for polymorphonuclear leukocytosis. Plain abdominal radiograph showed an elongated foreign body presumably a bottle and a wire in the pelvis (Fig. 2).

A very gentle attempt to dislodge the wire was unsuccessful. In view of generalized peritonitis and presence of rectal foreign bodies the patient was taken up for emergency surgery. Midline laparotomy was performed under general anesthesia. There was 500 ml of purulent/feculent material and blood in the peritoneal cavity and pelvis. A glass hair oil bottle (300 ml) was present in the rectum which was manipulated distally and delivered per anum. The wire which was in fact a straightened clothes hangar and hooked at its end had perforated the anterior wall of the intraperitoneal portion of the rectum and mesentery of the distal ileum. The hooked end of the wire was embedded in the mesentery of the ileum. The wire was straightened and removed per anum. Tears in the rectum and mesentery were repaired. Peritoneal toilet and diverting loop sigmoid colostomy was done. Appropriate parenteral antibiotics were administered.

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Fig. 1 Wire seen protruding from the anus

Fig. 2 Abdominal radiograph showing a large, elongated radio-opaque shadow and wire in the pelvis

The colostomy was closed after four weeks. The patient made an uneventful post-operative recovery.

On questioning later the patient stated that he had introduced the oil bottle for sexual stimulation and after entering the rectum it slipped beyond the reach of his fingers. He introduced the wire which had been hooked at its end in an unsuccessful attempt to retrieve the bottle. The wire got embedded inside and the patient could not remove it himself. When he developed severe abdominal pain he reported to hospital the next day. The patient admitted to deviant erotic practices and was referred to a psychiatrist who counseled him.

Discussion

The variety of rectal foreign bodies (FB) reported in literature is virtually endless. Circumstances surrounding FB insertion are commonly sexual stimulation, and sexual assault [1]. The diagnosis of rectal FB should be suspected when a patient presents with pelvic or perianal pain and/or rectal haemorrhage, an unconvincing story and the absence of a history of rectal instrumentation for therapeutic or diagnostic purposes. Because of potential complications, FB in the rectum should be considered a serious condition that must be treated without delay [2].

Stewart has outlined the following principles of management [3]:

- a) More damage is generally inflicted on the anorectum by a forceful attempt to remove a FB than by the original insertion.
- b) Never attempt to remove a FB unless the patient's anal sphincter is fully relaxed by local, spinal or general anesthesia.
- c) Never attempt to extract a FB using instruments in an uncooperative patient, because a sudden move can precipitate tearing or perforation.
- d) Large foreign bodies are preferentially removed in the operating room under a spinal or general anesthetic.
- e) Following retrieval of the object, meticulous endoscopic examination should be undertaken and repair effected for any associated lacerations.
- f) Rectal perforation whether intraperitoneal or extraperitoneal requires a diverting stoma.
- g) Senile patients with a patulous anus can usually have FB removed without an anesthetic. Thermometers are the most frequently encountered foreign objects in this age group.

Innovative techniques have been adopted by surgeons for FB retrieval in difficult situations which include using a Foley's catheter passed through a rigid sigmoidoscope [4], endoscopic snare [5], and vacuum extraction [6]. Recently laparoscopic assisted FB removal has been reported wherein the FB was removed transanally with laparoscopic assistance using one 10 mm and two 5 mm ports [7]. The treating surgeon should treat the patient sensitively and must demonstrate a caring attitude and not subject the patient to ridicule. Rectal injury due to FB introduced for erotic purposes can in exceptional circumstances result in death [8]. In the case report quoted the FB presumably was not self introduced.

This case is unique in that severe intraperitoneal injuries in the form of anterior rectal tear and mesenteric laceration occurred during attempted self removal with a wire, of rectal glass bottle introduced by the patient for sexual stimulation. To our knowledge such a bizarre turn of events has not been previously reported. Prompt and appropriate surgical management resulted in a favourable outcome.

References

1. Cohen JS, Sackier JM (1996) Management of colorectal foreign bodies. *J R Coll Surg Edinb* 41(5):312–315
2. Rodríguez-Hermosa JI, Codina-Cazador A, Ruiz B, Sirvent JM, Roig J, Farrés R (2007) Management of foreign bodies in the rectum. *Colorectal Dis* 9(6):543–548
3. Corman ML (Ed.) (1998) Management of foreign bodies. In: *Colon and rectal surgery*, 4th edition, Lippincot-Raven, 363–367
4. Humes D, Lobo DN (2005) Removal of a rectal foreign body by using a Foley catheter passed through a rigid sigmoidoscope. *Gastrointest Endosc* 62(4):610
5. Singaporewalla RM, Tan DE, Tan TK (2007) Use of endoscopic snare to extract a large rectosigmoid foreign body with review of literature. *Surg Laparosc Endosc Percutan Tech* 17(2):145–148
6. Feigelson S, Maun D, Silverberg D, Menes T (2007) Removal of a large spherical foreign object from the rectum using an obstetric vacuum device: a case report. *Am Surg* 73(3):304–306
7. Berghoff KR, Franklin ME Jr (2005) Laparoscopic-assisted rectal foreign body removal: report of a case. *Dis Colon Rectum* 48(10):1975–1977
8. Waraich NG, Hudson JS, Iftikhar SY (2007) Vibrator-induced fatal rectal perforation. *N Z Med J* 120:1260