



## Case Report

# Intentional Retained Colorectal Foreign Body: A Case Report

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### Abstract

A 45-year-old prisoner violently inserted a 30 cm bottle into his rectum in the prison. He complained of lower abdominal fullness and inability to pass stool. His vital signs were stable and the abdominal examination did not reveal any peritoneal sign. Multiple longitudinal ulcer like anal fissures were also remarkable in different positions of the anal wall extending to the rectum. Attempts were made to take out the bottle using forceps under sedation but it failed. The bottle was finally removed under general anesthesia via low midline laparotomy and a transverse sigmoidotomy which was closed primarily. Postoperative course was unremarkable.

**Keywords:** Colorectal; Foreign body; Intentional

### Introduction

Intentional or unintentional insertion of a rectal foreign body (FB) is not uncommon and often poses a serious challenge on the clinician.<sup>1</sup> Retained rectal FB has a wide variety of phallic substitutes and is no longer considered as a medical oddity and is encountered frequently.<sup>1-3</sup> Anorectal eroticism with a wide variety of phallic substitutes comprised most of the cases.<sup>2-5</sup> The presence of such FB in the rectum has always been a challenge to the physicians taking care of these patients and numerous ingenious approaches have been devised to remove these impacted objects.<sup>6</sup>

Anorectal simulation and penetration is a relatively common sexual practice.<sup>7</sup> Objects can be inserted for diagnostic or therapeutic purposes, or self-

treatment of anorectal disease, by criminal assault and accident or, most commonly, for sexual purposes.<sup>1</sup> The vast majority of objects are inserted by self introduction in children or psychiatric patients. 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.<sup>7-8</sup> Most patients with rectal foreign bodies present to the emergency room usually after efforts to remove the object at home.<sup>1</sup>

### Case Report

A 45-year-old prisoner was admitted to the Emergency Department of Nemazee Hospital affiliated to Shiraz University of Medical Sciences one day after a 30 cm bottle was violently inserted into his rectum in the prison (Figure 1 and 2). He complained of lower

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abdominal fullness and inability to pass stool. His vital signs were stable and abdominal examination did not reveal any peritoneal sign but in deep palpation, head of bottle could be palpated. Digital rectal examination revealed a hard mass that was bottom of the bottle 8 to 10 cm above the anal verge. Anal tone seemed to be lax. Multiple longitudinal ulcer like anal fissures were also remarkable in different positions of anal wall extending to the rectum.

Abdominal radiographs showed an opacity corresponding to the bottle with a concave cap inserted on its head with its head standing in the proximal part (Figure 3). Dilated loops were noted but nothing was found in favor of bowel perforation. Laboratory work-ups were normal.



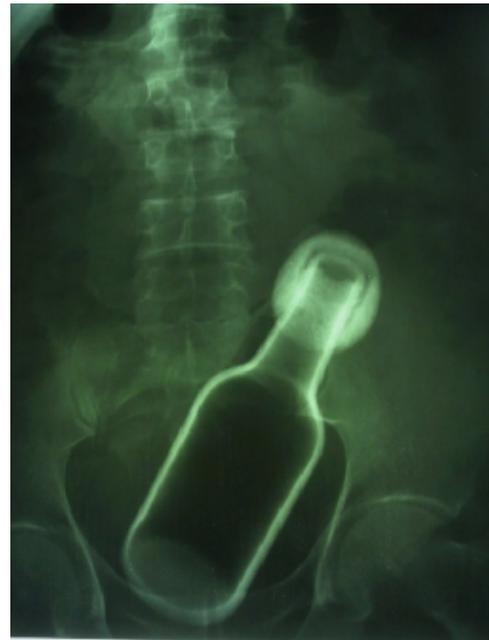
**Fig 1:** The bottle length.



**Fig 2:** The bottle maximum diameter.

Attempts were made to extract the bottle using forceps under sedation in the Emergency Department, but it failed. So the patient was transferred to the operating room for surgical removal of the object under general anesthesia with muscle relaxation. The bottle could not be taken out by the vacuum forceps due to the shape of the bottom of the bottle. Consequent application of rigid sigmoidoscopy and various types of snares and forceps failed to grasp and bring out the bottle.

Subsequently, through laparotomy and sigmoidotomy, the bottle which was trapped in rectosigmoid junction was removed safely (Figure 4). The longitudinal sigmoidotomy was then closed transversally and rigid sigmoidoscopy revealed no colonic damage. Postoperative course was unremarkable; diet was started on 4<sup>th</sup> post-operative day and the patient was discharged on 6<sup>th</sup> post operative day in good condition.



**Fig 3:** Plain abdominal x ray.

## Discussion

There are several reports on retained rectal FB over the last decade in the western countries; however, the presentations of such cases in Middle East countries were less reported. The male predominance seemed quite consistent with the reports from western and eastern countries.<sup>4,6,9-12</sup> Patients presenting to the Emergency Department were usually not forthcoming with the etiology of their complaints. They mostly



**Fig 4:** The bottle head in sigmoid.

present complaint of anal pain and bleeding (66.7% of the cases) and unsurprisingly, a history of anal introduction was given in only 33.3% of the cases. Similar observations have also been reported.<sup>2,6,13</sup> It has been known that the clinical history given for sexually related injuries are often vague and nonspecific because of embarrassment and fear of humiliation. Thus a high index of suspicion was necessary to clinch the diagnosis and administer prompt treatment. A cautious anorectal digital examination not only allowed palpation of the low-lying objects but also helped disclose possible complications caused by the FB. The presence of tarry mucoid rectal discharges with a necrotic odor raised the suspicion of gangrene of the rectum. A careful abdominal examination should also be performed to assess signs of peritonitis or the ability to palpate an object in the abdomen. Plane abdominal and pelvis x ray are required to determine the presence, number, shape, size, location and direction of the FB. This information is important in planning the extraction program.<sup>6</sup>

The variety of rectal FB was far beyond our imagination and required different strategies for safe removal. Extraction of the FB should only be attempted after an adequate relaxation of the anal sphincter, which, we believed, could only be achieved in the operating room under general anesthesia. Anoscopy or sigmoidoscopy should be utilized to remove the FB under direct vision to avoid iatrogenic injury. If a grasping edge could be obtained, grasping forceps or clamps provided simple methods of removal. However, for objects that were too large or without any grasping of the edge, many ingenious methods (e.g. vaginal spatulas, suction devices, wire and

plastic snakes, uterine vulsellum) were described to retrieve the FB.<sup>14-19</sup>

A FB made of glass requires special attention. Effort should be made to remove the object intact without breaking it. Utilization of padded retractors may be helpful. Furthermore, if the open end of the glass is directed cephalad, this will cause negative pressure within the glass and draw the mucosa into the mouth of the container. One easy way of overcoming the suction effect is to introduce one or more Foley catheters around the object and to inject air around the opening of the container after inflating the balloons of the catheters. Applying traction to the catheters will help removal of the object.<sup>9</sup> For objects that are not fragile, obstetric forceps provided several advantages. First, the 2 blades of the forceps could be introduced separately to either side of the FB; to allow positioning of the instruments in an already occupied, narrow space. Second, the forceps endured great strength on it, thus allowing the operator to apply effort on the object obstructed by the ischial tuberosities. Nevertheless, care must be taken to avoid injury to the anal sphincter.<sup>6</sup> At times, the low-lying objects could migrate rather proximally in process of manipulation. The FB thus became a high-lying object. It was suggested that in the absence of acute abdomen, admission to hospital and sedation should result in descending of the FB that could then be treated as low-lying objects.<sup>3,4,9</sup> Several advantages were advocated with colonoscopic removal.<sup>20,21</sup> First, it is capable of retrieving objects at a greater distance from the anus. Second, there was no need to dilate the anal sphincters wider than the FB itself in order to introduce the grasping instruments. Third, the patients may not require anesthesia and, in this way, they could help to push the FB by a Valsalva maneuver.<sup>6</sup> A laparotomy for removal of the FB is rarely indicated; however, in patients with overt peritonitis or pelvic sepsis that results from perforation of the bowel, the large size foreign bodies or glass bottle with broken sharp edge toward the anus which are hardly removed from the anus, exploration is mandatory. The principles of repair or resection of the injured bowel, fecal diversion, cleansing of the distal bowel and presacral drainage were well established.<sup>3</sup> Nevertheless, for patients with impacted high-lying objects without complication, the strategy of treatment could be of controversy. Some authors proposed laparotomy with milking down and retracting the object transanally or through a colotomy if the object is too big to be removed from below.<sup>22,23</sup> Recently, the flexible fiberoptic colonoscope,

as mentioned above, has been utilized in such cases with a considerable successful rate.<sup>9,21,23</sup> It was even suggested that colonoscopic retrieval could be considered as the first step in the management of these patients.<sup>21</sup> Following extraction of the FBs proctosigmoidoscopy is mandatory to rule out bowel injury or missed FB. Minor injuries, such as abrasion or superficial tear of the mucosa, are quite common and can be treated conservatively. Preferably, all the patients with mucosal injury should be admitted for inpatient observation to detect any possible delayed complication. Additionally, all these patients should be referred for psychological evaluation so they may gain some psychological benefit in dealing with their ongoing fetish. The goal of the counseling would be to avoid similar problems in the future, determination of a treatable psychiatric disorder and minimizing

psychological trauma to patients in assault cases.<sup>2,9</sup> In conclusion, FB in the rectum represents a management difficulty. Most of the uncomplicated rectal FBs could be simply extracted in the operating room with adequate anesthesia; but fiberoptic colonoscopic extraction provided an alternative choice. Open surgery should be reserved only for those patients with overt peritonitis or pelvic sepsis or very large objects.

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