

Rectal Foreign Body Insertion in Children: A Review Article

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Abstract

Colorectal foreign bodies (FB) are not uncommon in the emergency departments (ED) and they may pose a diagnostic and management problems. In this study we are presenting the unique features of rectal foreign body insertion in children. The topic is also discussed under the light of relevant literature.

Keywords: *Colorectal Foreign Bodies (FB); Emergency Departments (ED)*

Introduction

Colorectal foreign bodies (FB) are not uncommon in the emergency departments (ED) and they may pose a diagnostic and management uncertainties. It has been reported that more than two-thirds of the patients with FB are men in their 3rd and 4th decades of life [1]. The age range of the patients with retained rectal FB is between 5 - 90 years [1,2]. In this study we are presenting the characteristics of rectal foreign body insertion in children with a discussion of literature.

Described sporadically in published records, rectal FB insertion dates back to as early as the 16th century when Haft and Benjamin reported a case with rectal FB [3]. In 1880, Poulet included several chapters on the topic in his book and in 1919 Smiley published a case with glass tumble inserted into the rectum [4,5]. Since then FB insertion into rectum is no longer considered an uncommon reason for emergency department admissions and its incidence is rising. In a recent report, of traumatic rectal injuries seen in ED, 19% were found to be secondary to FB insertion [6].

Rectal insertion of FBs is commonly seen in males with an age range of 5 - 90 years [1,2]. Emphasizing the distinct male preponderance in these cases, in a recent systematic review, it was noted that ratio of men to women with rectal FB insertion was 37:1 [3]. There is a bimodal age distribution of these cases observed in twenties for anal erotism and in the sixties mainly for prostatic massage or for the purpose of fecal disimpaction [7].

It is crucial to establish the motivation for foreign object insertion for a successful patient management. The causes are namely sexual gratification commonly seen in the twenties, as a result of suicidal or non-suicidal self-injurious behaviour, psychosis with or without mood disturbance, as a consequence of depressive or factitious disorder, malingering for the sake of "secondary gain" and in patients with cognitive disorders [8-13]. Another categorization of rectal FB insertion includes sexual or nonsexual involuntarily inserted FBs. There are wide variety of materials for voluntarily rectal insertions for sexual purposes and include plastic or glass bottles, cucumbers, carrots, wooden or rubber objects etc. Patients with involuntarily inserted rectal FBs are usually seen as a result of rape or sexual assault [14]. Nonsexual FB insertions may be seen in patients with the behaviour of body packing or drug traffickers [1]. Children, elderly people or mentally ill persons are candidates for involuntary nonsexual FB insertion. Other causes of FB insertion include children who usually

insert FBs for the sake of simple curiosity as a consequence of misguided attempts at contraception, abortion or self-treatment of anal or urinary symptoms [2,15-17].

These patients are often reluctant to disclose their situation and usually complain of anal or abdominal pain. Rectal bleeding may also be observed during assessment of the patients [18]. Anal pain was the presenting symptom in our case. Patients with rectal FB usually attempt to remove FBs by themselves and this may cause late hospital admissions. Rectal examination is essential in diagnosing these cases. But it should be performed after obtaining X-ray of the abdomen. During rectal examination careful attention should be paid to the status of the sphincter especially in patients with repeated rectal FB insertions. Although such an approach has been suggested, generally speaking, enemas or stimulant suppositories are not recommended which may cause extensive injury [1]. Although infrequently seen, there are serious complications related to rectal insertion of FBs. These are rectal mucosal tears, disruption of sphincteric complex, fecal incontinence, perforation or bleeding.

Transanal removal of FB is the most common procedure in the management of these patients [19]. This may be performed in ED as the patient is awake or as an outpatient basis with intravenous sedation and perianal nerve blocks. In children, general anesthesia is usually applied during removal of rectal FB. Lithotomy position is useful and digital rectal examination together with abdominal pressure from above is helpful in squeezing the FB distally. A grasping clamp like a Kocher clamp is useful in removing the FB. Several other approaches have been reported as a choice of removal of rectal FB and these include a foley catheter technique, injection of air above the object, use of magnets, Sengstaken-Blakemore tube technique or a use of an obstetrical vacuum device [19-22].

Following successful removal, it is vital to perform endoscopic examination to evaluate the mucosa for local damage, active bleeding, ischemia, perforation or detecting an additional retained FB. Endoscopy may provide an opportunity to avoid unnecessary abdominal exploration. Surgical intervention for removal of FB may be necessary if there is inability to remove the object, if there is perforation or peritonitis. The choices of surgical treatment include enterotomy with removal of FB and primary closure, if there is excessive peritoneal contamination due to perforation proximal diversion may be performed. Laparoscopic assisted transanal removal may also be another choice of surgical intervention. In this method the FB is pushed from above to assist removal transnally [23].

Conclusion

In conclusion, rectal FBs may present a difficult diagnostic and management dilemmas due to delayed presentation, wide variety of retained FBs and wide spectrum of the injuries they may produce. It is likely that the incidence of this clinical entity will rise and an increasing trend will be encountered in most hospitals in future. Therefore front-liners of health providers dealing with such kinds of patients should be well informed about this and a prompt pediatric surgical consultation is recommended and the patient should be treated accordingly.

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