

Rectal foreign bodies: A retrospective studyEkka NMP¹, Malua S², Bodra P³

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ABSTRACT

Background: Reported incidence of rectal foreign bodies is rather rare with only isolated published case reports or case series. Controlled studies of patients with rectal foreign bodies have not been conducted. The approach to the management of these patients has not changed in the last 10-20 years.

Objective: The aim of this study was to describe 16 cases of colorectal foreign bodies introduced during sexual activity, gathered by the authors from 2002 to 2016, and to establish an epidemiological and therapeutic pattern.

Material and methods: This was a retrospective study that involved retrieval of folders belonging to patients who were treated for foreign body of rectum. The patients demographic data along with type of object (Foreign body), time of presentation and type of treatment required were recorded from the case folders.

Results: All the 16 patients in our series were male with a mean age of 42 years. Household bottles (37.8%) were the most common foreign body while a majority of patients presented between 24 to 48 hrs. Laparotomy was done in 8 cases (50%) out of which in 7 cases transanal extraction was done by milking while in 1 case colostomy was done. Manual extraction was successful in 25% while forceps were helpful in another 25%.

Conclusions: The incidence of rectal foreign bodies is disproportionately higher in men. Manual extraction with or without the help of obstetric forceps appears to be the treatment modality of choice. The appropriate technique will depend on the size and surface of the retained object and the presence of complications.

Keywords: Foreign body, rectal trauma, sexual perversions, rectum, colorectal

Introduction

Foreign body insertion in the rectum has been extensively described in the surgical literature, with the earliest reports dating back to the 16th century. Whether done for purposes of sexual gratification or not, voluntarily or accidentally, the reported incidence of rectal foreign bodies is rather rare with only isolated published case reports or case series. Controlled studies of patients with rectal foreign bodies have not been conducted. The approach to the management of these patients has not changed in the last 10-20 years. These patients usually present to the emergency department because of pain, discomfort, or foreign body sensation, often after multiple attempts to remove the object. A problem commonly encountered in patients with rectal foreign bodies is the delay in presentation.^[1, 2] While patients may be reluctant to disclose the cause of their presentation, diagnosis can be made in the majority of cases with accurate history and confirmed with plain radiographs. Yaman et al in their study of 29 patients observed that soft or low-lying objects could be grasped

and removed safely in the emergency department, but grasping hard objects was potentially traumatic and occasionally resulted in upward migration. Operating room procedures included anal dilatation, transrectal manipulation, bimanual palpation and withdrawal of the foreign body.^[3] Gaponov VV et al reported endoscopic removal as a modality of treatment with good success.^[4] The keys to adequate care for these patients are respect for their privacy, evaluation of the type and location of the foreign body, determination if removal can be performed or operative intervention is needed, and the use of appropriate techniques for removal.

Material and methods

This was a retrospective study that involved retrieval of folders belonging to patients who were treated for foreign body of rectum at Rajendra Institute of Medical Sciences Ranchi in between 2002 to 2016. The patients demographic data along with type of object (Foreign body), time of presentation and type of treatment required were recorded from the case folders.

The aim of this study was to describe 16 cases of colorectal foreign bodies introduced during sexual activity, gathered by the authors through study of case record folders from 2002 to 2016, and to establish an epidemiological and therapeutic pattern.

Results

This study covers a total of 16 patients who were all men and no women. The majority of our patients were in the fifth decade (n=6 i.e. 37.8%) followed by 3rd decade (n=4 i.e. 25%) and fourth decade (n=3 i.e. 18.75%) respectively with mean age being 42 years. One patient presented in the 2nd decade along with one patient in 6th and 7th decade each. Most common type of foreign body retrieved were household bottles (n=6 i.e. 37.8%) including cough syrup bottles and beverage bottles. Wooden objects and candles constitute the second most common type of objects retrieved which were 3 each and stand at 18.75% each. In two cases (12.5%) vegetables were found in the rectum, one of them was a carrot and the other cucumber. Aerosol spray container and a household bottle lid, which was cylindrical in shape, were found in one case each (6.25% each).

Most of the patients (n=6 i.e. 37.8%) presented between 24 to 48 hrs, 4 patients (25%) presented between 6 to 24 hrs, 3 patients (18.75%) presented within 6 hrs while the other 3 (18.75%) presented after 48 hrs. Most number of patients (n=8 i.e. 50%) required Laparotomy out of which in 7 cases (43.75%) the foreign body was milked towards the anal canal and was retrieved through the anal opening. In one case (6.25%) out of these perforation was present and as a result colostomy was done.

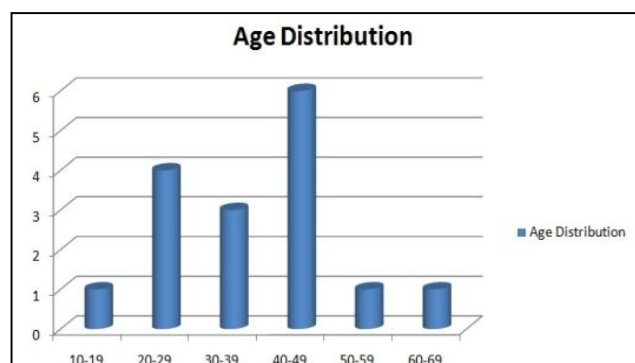


Fig 1: Age distribution

Table 1: Objects found as foreign body

Foreign Body	Frequency	Percentage
Bottle	6	37.8%
Vegetables	2	12.5%
Spay Can	1	6.25%
Wooden object	3	18.75%
Bottle Lid	1	6.25%
Candle	3	18.75%

Table 2: Time of Presentation

Time of Presentation	Frequency	Percentage
Within 6 hrs	3	18.75%
6 to 24 hrs	4	25%
24 to 48 hrs	6	37.8%
After 48 hrs	3	18.75%

Table 3: Modality of treatment given

Treatment given	Frequency	Percentage
Manual Removal	1	6.25%
Manual Removal under GA	3	18.75%
Manual Removal with help of Obstetrics Forceps	4	25%
Laparotomy with per anal removal	7	43.75%
Colostomy	1	6.25%

In 4 cases (25%) manual extraction was possible, out of which 3 cases (18.75%) required general anaesthesia. In 4 cases (25%) obstetric forceps were successfully used for the removal of rectal foreign body.

Discussion

Rectal foreign bodies, although not common, are no longer considered rare in emergency departments, and it appears that their incidence is on the rise.^[5] Especially reports of foreign body within the rectum are uncommon in Asia, and the majority of case series are reported from Eastern Europe.^[6] Rectal foreign bodies can be classified based on the reason for insertion (voluntary vs involuntary and sexual vs nonsexual). Voluntarily

inserted objects include body packers or for sexual eroticism while involuntarily inserted objects is seen in rape or abuse victims, and unfortunately commonly affect children.^[7]

In our study we found that all the patients were male. Kurer et al (2010) in their systematic review of 193 patients observed that 188 were male and 5 were female with a ratio of approximately 37:1.^[2] Other authors^[1, 5] are also of the view that the majority are male in their 3rd and 4th decades. Our study also agrees to this view of male predominance. As there have been no controlled studies yet, we are of the opinion that larger studies are required to establish the reason behind this disproportionately high male predominance.

In our study we observed that majority of our patients were in the fifth decade (n=6 i.e. 37.8%) followed by 3rd decade (n=4 i.e. 25%) and fourth decade (n=3 i.e. 18.75%) respectively with mean age being 42 years. One patient presented in the 2nd decade along with one patient in 6th and 7th decade each. Kurer et al (2010) observed mean age of 44 years^[2] while Biriukov et al (2000) have documented age between 16 and 80.^[8] In our study age range was between 18 and 67. Other authors^[1, 5] are also of the view that most patients are in 3rd and 4th decade of life. Our study is in concurrence with the views and observations of other authors.

In our study the most common type of foreign body retrieved were household bottles (n=6 i.e. 37.8%) including cough syrup bottles and beverage bottles. Wooden objects and candles constitute the second most common type of objects retrieved which were 3 each which stand at 18.75% each. In two cases (12.5%) vegetables were found in the rectum, one of them was a carrot and the other cucumber. Aerosol spray container and a household bottle lid, which was cylindrical in shape, were found in one case each (6.25%). Kurer et al (2010) observed that household objects, such as bottles and glasses, accounted for the largest percentage (42.2%) of inserted objects.^[2] The foreign bodies commonly reported by other authors have been plastic or glass bottles, cucumbers, carrots, wooden, or rubber objects. Other objects reported are bulb, tube light, axe handle, broomstick, vibrators, etc.

The object length varied between 6 and 15 cm, and larger objects were more prone for complications.^[9] Our observation of majority of the foreign bodies being household bottles (37.8%) is very similar to that observed by Kurer et al (42.2%). Most of the other objects are also household things and are easily accessible to common man.

In our series most of the patients (n=6 i.e. 37.8%) presented between 24 to 48 hrs, 4 patients (25%) presented between 6 to 24 hrs, 3 patients (18.75%) presented within 6 hrs while the other 3 (18.75%) presented after 48 hrs. Kurer et al observed in their review that the presentation for treatment occurred most often within 24 hrs of insertion.^[2] G. Kasotakis et al were of the view that a problem commonly encountered in patients with rectal foreign body is the delay in presentation.^[10] Our observation that a majority of patients presented between 24 to 48 hrs is later than what observed by Kurer et al. As most of the studies are from Europe and very few reports are from Asia,^[6] in our opinion the taboo of sex in India may be a reason behind this late presentation.

In our series majority of the patients (n=8 i.e. 50%) required Laparotomy out of which in 7 cases (43.75%) the foreign body was milked towards the anal canal and was retrieved through the anal opening. In 1 case (6.25%) out of these, perforation was present and as a result, colostomy was done. In 4 cases (25%) manual extraction was possible out of which 3 cases (18.75%) required general anaesthesia. In 4 cases (25%) obstetric forceps were successfully used for the removal of rectal foreign body. Kurer et al observed that the majority of objects were removed transanally using manual manipulation with or without the use of a variety of tools, or via a scope.^[2] Kouraklis G et al in their review of 21 cases observed that most cases could be treated by manual extraction.^[11] Other authors are also of the view that majority (90%) of the cases is treated by transanal retrieval. In our series also a majority were treated by transanal extraction. Thought 8 cases required laparotomy, in 7 cases out of these the extraction was done by milking through the transanal route. We are of the view that as in most of the cases the treating

surgeon was having first time experience in managing such cases which must have led to this high laparotomy rate.

The incidence of rectal foreign bodies is disproportionately higher in men. A detailed clinical history and physical examination are essential for the diagnosis and management of these cases. Plain X-ray will be necessary and sufficient. Manual extraction with or without the help of obstetric forceps appears to be the treatment modality of choice although laparotomy may be necessary. The appropriate technique will depend on the size and surface of the retained object and the presence of complications.

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