

Received: 2021.01.08

Accepted: 2021.04.13

Available online: 2021.05.12

Published: 2021.06.17

Rectal Foreign Body: A Successful Removal at the Bedside and Detailing of a Stepwise Management

Authors' Contribution:

Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F
Funds Collection G

A 1,2 **David Eng Yeow Gan**
F 1,2 **Kheng Hooi Chan**
F 1 **Pramantha Veerappan**
F 3 **Kian Joo Sun**
AF 4 **Firdaus Hayati**

1 Department of Surgery, Queen Elizabeth Hospital, Ministry of Health Malaysia, Kota Kinabalu, Sabah, Malaysia
2 Department of Surgery, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Center, Cheras, Kuala Lumpur, Malaysia
3 Department of Urology, Queen Elizabeth Hospital, Ministry of Health Malaysia, Kota Kinabalu, Sabah, Malaysia
4 Department of Surgery, Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia

Corresponding Author: Firdaus Hayati, e-mail: firdaushayati@gmail.com, m_firdaus@ums.edu.my

Conflict of interest: None declared

Patient: Male, 22-year-old
Final Diagnosis: Rectal foreign body
Symptoms: Failure to remove self inserted bottle per rectum
Medication: —
Clinical Procedure: —
Specialty: Surgery

Objective: Management of emergency care

Background: A rectal foreign body (RFB) can be stigmatizing for patients and present a dilemma for the treating physician. Removal can be challenging owing to the variety of objects introduced. The goals of therapy are to safely remove the RFB and to minimize injury to the bowel.

Case Report: A 22-year-old man was referred from a district hospital to our institution after being unable to remove a self-inflicted RFB after sexual gratification. He was hemodynamically stable with a soft and nontender abdomen. A mass was felt in the suprapubic region. Abdominal radiography revealed a well-defined radiolucent object in the pelvic region, which was consistent with a lubricant bottle. No sign of bowel obstruction or perforation was observed. The RFB was successfully retrieved by a combination of transrectal digital manipulation and directed gentle abdominal pressure, allowing for descent of the RFB and transanal traction at the bedside. Various approaches have been described for removal of a RFB, from simple bedside strategies to open surgery for complicated cases. Endoscopy and minimally invasive techniques have also demonstrated a role in formulating a tailored approach.

Conclusions: We describe a successful retrieval of an RFB at the bedside, avoiding unnecessary open surgery.

Keywords: Foreign Bodies • Radiography, Abdominal • Sexual Behavior

Full-text PDF: <https://www.amjcaserep.com/abstract/index/idArt/930967>



1095



—



2



6



Background

Rectal foreign body (RFB) insertion is not uncommon, yet it causes significant morbidity for the people involved. Removal of an RFB presents a challenge to the managing physician owing to the variety of objects introduced and difficulty in retrieval. It is common among middle-aged men, but there are cases among women as well [1]. Many reasons underlie RFB insertion, including sexual gratification, concealment, sexual assault, accidental causes, and anal erotism [1]. Among many possible objects, glass bottles and sex devices are the most common rectally inserted objects [2]. The presentation may be immediate because of an individual's inability to remove the object or delayed because of embarrassment or complications such as obstruction, bleeding from the rectum, or colonic perforation [1,3]. Several techniques have been described for RFB removal, but the shape, size, and location of the object often determine the method for retrieval [2]. Here, we describe a case of successful bedside retrieval of an RFB, avoiding unnecessary open surgery.

Case Report

A 22-year-old man was referred from a district hospital to our institution after being unable to remove a lubricant bottle self-inserted into his rectum. He reported he had inserted the bottle for sexual gratification together with his partner. His previous medical history was unremarkable. Upon initial assessment, he was hemodynamically stable. An abdominal examination demonstrated no peritonitis. However, a cylindrical mass was felt in the suprapubic region. Rectal examination revealed a hard object that could be felt just at the tip of a finger. Abdominal radiography (**Figure 1**) revealed a well-defined radiolucent object in the pelvic region, consistent with a lubricant bottle. There was no proximal colon dilatation or pneumoperitoneum.

Manual retrieval via a transanal approach was attempted at bedside. The patient was given 50 µg fentanyl intravenously and placed in a lateral decubitus position. The anal canal and the examiner's fingers were generously lubricated. The edge of the RFB was palpated at the rectum and disimpacted ventrally from the sacral curve. Directed gentle right iliac fossa pressure was applied to assist the foreign body in negotiating the distal fold of Houston and sliding distally to the examiner's fingers. The end of the object was secured with 2 fingers and gentle traction was applied to successfully retrieve the object. The foreign body was a bottle of a lubricant measuring 20 cm long (**Figure 2**). After the extraction, a digital rectal examination revealed good sphincter tone and proctoscopy showed no mucosal defect. The patient was observed in the surgical ward overnight and was discharged in good condition the next day.



Figure 1. Pelvic radiograph revealed a well-defined radiolucent foreign body in the pelvic region.



Figure 2. Lubricant bottle which was retrieved from the rectum.

Discussion

An RFB may pose a challenge for diagnosis and treatment because it is considered taboo, especially in Asian countries. Patients with an RFB are usually ashamed and may conceal the problem owing to stigma and thus not provide an accurate clinical history. Thorough history taking, physical examination, and radiography are warranted if the index of suspicion

is high. Our patient was referred to our institution by a district hospital. Such a presentation definitely could not be managed in a district environment, and it required a tertiary hospital for selective treatment options.

Several techniques have been described for the extraction of an RFB [4]. A retained RFB can be classified as high- or low-lying depending on its location relative to the rectosigmoid junction. Clinically, a low-lying RFB is considered when it is palpable on a digital rectal examination, which could allow its extraction at bedside [5]. In stable patients, less-invasive procedures such as transanal extraction by hand or forceps should be attempted first, and if unsuccessful, removal could require surgery. The patient should be placed in a lithotomy position to facilitate abdominal manipulation to apply the Valsalva maneuver. The success rate depends on the size of the clinician's hand and the adequacy of anal sphincter relaxation. Passing a Foley catheter proximal to the object and inflating the balloon to break any suction effect may allow traction of the foreign body as well. We were fortunate that we managed to retrieve the retained RFB at the bedside. Owing to the fact that it was low-lying in lateral decubitus position, it could be grasped by the examiner's hand with concomitant abdominal manipulation.

High-lying retained rectal foreign body usually necessitates endoscopic or surgical intervention [5]. The endoscopic extraction technique involves the use of a flexible endoscope to extract a foreign body that is situated more proximally. This technique provides visualization of the mucosa, and a polypectomy snare can be used to help extract the foreign body. The endoscope can also be used to evaluate for mucosal injuries after successful extraction [4]. A limitation of endoscopic removal is the size of instruments afforded by the endoscope, making removal of a larger RFB significantly more difficult. This limitation can be overcome by the use of a single-incision laparoscopic surgery (SILS) port transanally, thus permitting visualization, insufflation, and deployment of 2 working forceps simultaneously [6].

References:

1. Ng CY, Hayati F, Ali AA, et al. Rectal foreign bodies: sexual gratification turned misery. *Brunei Int Med J.* 2020;16:73-76
2. Ploner M, Gardetto A, Ploner F, et al. Foreign rectal body – systematic review and meta-analysis. *Acta Gastroenterol Belg.* 2020;83(1):61-65
3. Shaban Y, Elkbuli A, Ovakimyan V, et al. Rectal foreign body causing perforation: Case report and literature review. *Ann Med Surg (Lond).* 2019;47:66-69
4. Cawich SO, Thomas DA, Mohammed F, et al. A management algorithm for retained rectal foreign bodies. *Am J Mens Health.* 2017;11(3):684-92
5. Amran FA, Mansor MFH, Abdul Razak MS, Sabudin MF. Difficult retrieval of glass bottle in the rectum: how the story end? *Mal J Med Health Sci.* 2019;15(Suppl. 9):207-9
6. Elias B, Debs T, Hage S, et al. Single incision laparoscopic surgery technique for transanal removal of rectal foreign body. *J Surg Case Rep.* 2014;2014(3):rju022

An algorithm to simplify the management of an RFB has been proposed by Amran et al [5]. After the initial assessment and diagnosis, patients with signs of perforation should undergo laparotomy with prior resuscitation and antibiotics. Patients without signs of peritonitis may undergo manual evacuation or endoscopic removal if the RFB is located more proximally. Should these attempts fail, removal under general anesthesia can be attempted. Instruments such as forceps, vacuum, or even an SILS approach may aid removal. If all else fails, a laparotomy is warranted [5]. Another indication for surgical intervention is acute bleeding.

Attempt could be made by “milking” the foreign body distally into the lower rectum and to remove it transanally. This procedure was done successfully by Ng et al [1] in a case in which a foreign body similar to that in our case (lubricant bottle) was inserted rectally in a young woman. Fortunately, no mucosal injury, perforation, or contamination occurred in both cases, and resection or colostomy was unnecessary. If conservative measures are unsuccessful, extraction via a controlled colotomy is indicated, followed by primary repair. In the presence of perforation without gross contamination, primary anastomosis of a short-segment resection could be performed in an otherwise healthy bowel wall. In the presence of gross contamination, a Hartmann procedure is advisable.

Conclusions

A high index of suspicion is needed for accurate diagnosis of an RFB. Early removal of an RFB should be attempted, employing a stepwise approach in an effort to preserve bowel integrity. Available facilities and the location and dimensions of the RFB should be considered when planning for its removal.

Acknowledgments

Special thanks are extended to those who were involved in managing this patient.

Conflict of Interest

None.