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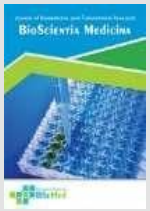

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An Unusual Case of Self-Inserted Rectal Foreign Body: Successful Management with Manual Extraction Under Spinal Anesthesia

Putut Tri Anda[1*], Anton Tri Hartanto[1], Ade Tan Reza[1]

[1]Department of Surgery, Raden Mattaher General Hospital, Jambi, Indonesia

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***Corresponding author:**
Putut Tri Anda

E-mail address:
tutup128@icloud.com

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A B S T R A C T

Background: Rectal foreign bodies (RFBs) are an uncommon presentation to the emergency department (ED), often encountered by emergency medicine, surgery, and internal medicine specialists. Their management can be challenging, ranging from simple manual extraction to complex surgical interventions. **Case presentation:** A 19-year-old male presented to the ED with lower abdominal and anal pain. He admitted to self-inserting a plastic bottle into his rectum for autoerotic purposes. A physical examination revealed a palpable tubular mass in the rectosigmoid region, confirmed by a pelvic X-ray. The patient successfully underwent manual transanal extraction of the foreign body under spinal anesthesia, with no complications. **Conclusion:** This case highlights the importance of a thorough history and physical examination in patients presenting with RFBs. Prompt diagnosis and appropriate management, including manual extraction when feasible, can lead to successful outcomes.

1. Introduction

Rectal foreign bodies (RFBs) are an uncommon yet clinically significant presentation in healthcare settings, often requiring the expertise of emergency medicine, surgery, and internal medicine specialists. While the overall incidence is relatively low, estimated at 0.15 per 100,000 individuals annually, the management of RFBs can be challenging, ranging from simple manual extraction to complex surgical interventions. This necessitates a thorough understanding of the condition, its associated risk factors, and the various management strategies available to healthcare professionals. The insertion of foreign bodies into the rectum is often associated with a variety of reasons, including autoerotic behavior, sexual experimentation, sexual assault, concealment of illicit drugs (body packing), accidental insertion, and underlying psychiatric conditions. The diversity of objects encountered, ranging from bottles and sex toys to vegetables, household items, and even batteries, further complicates the management approach. The clinical presentation of RFBs varies depending on several factors, including the size, shape, and nature of the foreign object, the duration of retention, and the presence of complications such as perforation or peritonitis. Patients may present with a wide range of symptoms, including abdominal pain, rectal bleeding, tenesmus, constipation, or even sepsis. In some cases, patients may be asymptomatic, with the foreign body discovered incidentally during a routine examination or imaging study.[1-4]

A comprehensive history and thorough physical examination, including a digital rectal examination (DRE), are essential for accurate diagnosis and assessment of the foreign body. The history should focus on the circumstances surrounding the insertion, the nature of the foreign object, and the presence of any associated symptoms. The physical examination should include an assessment of the patient's vital signs, abdominal examination, and a careful inspection of the perianal area and rectum. Imaging studies, such as plain abdominal radiographs and computed tomography (CT) scans, play a crucial role in confirming the diagnosis and determining the size, shape, and location of the foreign body. These imaging modalities assist in guiding the management strategy and help avoid potential complications during extraction. In some cases, additional imaging studies, such as contrast enemas or sigmoidoscopy, may be necessary to further evaluate the extent of injury or rule out perforation. The management of RFBs depends on several factors, including the size, shape, and location of the foreign body, the presence of complications, and the patient's overall clinical condition. In most cases, transanal extraction under direct visualization is the preferred approach, with a success rate of approximately 90%. Various techniques and instruments have been described for transanal extraction, including manual extraction, forceps, snares, and vacuum devices.[5-8]

Surgical intervention, such as laparotomy or laparoscopy, is reserved for cases where transanal extraction is unsuccessful or contraindicated, or when complications such as perforation or peritonitis are present. The surgical approach aims to safely remove the foreign body while minimizing morbidity and mortality.[9,10] In this case report, we present an unusual case of a self-inserted rectal foreign body successfully managed with manual extraction under spinal anesthesia. We discuss the clinical presentation, diagnostic evaluation, and management strategy, emphasizing the importance of a multidisciplinary approach and the appropriate selection of extraction techniques to ensure a favorable outcome.

2. Case Presentation

A 19-year-old male presented to the emergency department (ED) of our hospital with a primary complaint of lower abdominal pain radiating to the anal region. The onset of pain was acute, having commenced approximately one hour prior to his arrival. The patient described the pain as a constant, dull ache, which intensified with movement and positional changes. He denied any associated symptoms such as rectal bleeding, fever, nausea, or vomiting. The patient's medical history was unremarkable, with no known allergies or chronic medical conditions. He denied any history of gastrointestinal disorders or previous abdominal surgeries. However, upon further inquiry into the nature of his presenting complaint, the patient disclosed a history of inserting foreign objects into his rectum for autoerotic purposes. He revealed that he had engaged in this behavior on multiple occasions in the past, but this was the first instance where the object had become lodged and could not be removed spontaneously.

A comprehensive physical examination was conducted to assess the patient's overall condition and identify any localized signs related to his presenting complaint. The patient was alert and oriented, with stable vital signs, including a blood pressure of 120/70 mmHg, a heart rate of 88 beats per minute, a respiratory rate of 18 breaths per minute, and a temperature of 36.7°C. His abdomen was soft and non-tender on palpation, with normal bowel sounds auscultated in all four quadrants. External examination of the anal area revealed no signs of trauma, bleeding, or erythema. The perianal skin was intact, and there was no evidence of hemorrhoids or fissures. A digital rectal examination (DRE) was performed to further evaluate the rectum and identify any palpable abnormalities. The DRE revealed a palpable, smooth, and non-tender tubular mass located in the rectosigmoid region. The examining finger was withdrawn without any blood or fecal

staining, indicating the absence of active bleeding or mucosal disruption.

Based on the patient's history and physical examination findings, a suspicion of a retained rectal foreign body was raised. To confirm the diagnosis and determine the precise location and characteristics of the foreign body, a plain radiograph of the pelvis was obtained. The radiographic imaging confirmed the presence of a radiopaque foreign body consistent with a bottle lodged in the rectosigmoid colon (Figure 1A). Laboratory investigations, including a complete blood count, coagulation profile, and serum electrolytes, were performed to assess the patient's overall health status and rule out any underlying metabolic abnormalities or infections. All laboratory results were within normal limits, indicating the absence of any systemic complications or infections. After a thorough discussion of the risks and benefits of various management options, the patient consented to manual transanal extraction under spinal anesthesia. He was transferred to the operating room, where spinal anesthesia was successfully administered.

The patient was placed in the lithotomy position, and the perineal area was prepped and draped in a sterile fashion. A retractor was used to expose the anal canal, and the foreign body was visualized. Gentle traction was applied to the bottle, and it was successfully extracted without any resistance or complications. The extracted foreign body was a plastic bottle measuring 16 cm in length and 4 cm in diameter (Figure 1B). Following the extraction, a DRE was performed to assess for any rectal wall injury. No mucosal tears, bleeding, or perforations were identified. The patient was monitored in the recovery area for several hours and was discharged home in stable condition with instructions for follow-up with a colorectal surgeon.

A B

Figure 1. A. Plain abdominal radiograph reveals a tubular foreign body. B. Residual foreign body in the rectum post-extraction.

Table 1. Step by step process of manual transanal extraction under spinal anesthesia.

Step	Details	Instructions
1. Patient preparation	- Obtain informed consent. - Confirm patient identity and planned procedure. - Establish intravenous access.- Monitor vital signs (heart rate, blood pressure, oxygen saturation).	- Patient confirmed consent. - Patient identification and procedure confirmed. - 18-gauge IV line inserted in the left forearm. - Baseline vital signs: HR 80 bpm, BP 120/80 mmHg, SpO2 99% on room air.
2. Anesthesia	- Position the patient in the lithotomy position. - Administer spinal anesthesia with appropriate anesthetic agent and dosage. - Ensure adequate sensory and motor blockade.	- Spinal anesthesia was administered at L3-L4 interspace using 12 mg of bupivacaine 0.5% with 20 mcg of fentanyl. - Sensory blockade confirmed up to T10 dermatome. - Motor blockade confirmed with complete leg paralysis.
3. Anal canal exposure	- Perform aseptic preparation of the perianal area. - Use a retractor (e.g., Lone Star retractor) to gently expose the anal canal.	- Povidone-iodine solution used for aseptic preparation. - Lone Star retractor inserted to provide adequate visualization.
4. Foreign body visualization	- Carefully inspect the anal canal and rectum to visualize the foreign body.	- Foreign body (plastic bottle) visualized approximately 8 cm from the anal verge.
5. Foreign body extraction	- Gently grasp the foreign body with appropriate forceps or grasping instruments. - Apply steady traction in line with the axis of the rectum. - Avoid excessive force or manipulation to prevent rectal injury.	- Foreign body grasped with Babcock forceps. - Gentle traction was applied, and the foreign body was successfully removed.
6. Post-extraction assessment	- Inspect the anal canal and rectum for any signs of injury or bleeding. - Perform a digital rectal examination to assess for perforation or mucosal damage.	- No active bleeding or mucosal tears observed. - Digital rectal examination revealed no palpable defects or tenderness.
7. Recovery and monitoring	- Monitor vital signs and observe for any complications (e.g., bleeding, pain, urinary retention). - Provide analgesia as needed. - Instruct the patient on post-procedure care and follow-up.	- Patient's vital signs remained stable throughout the recovery period. The Patient reported mild discomfort, which was managed with intravenous acetaminophen. - Patient discharged home with instructions to follow up with a primary care physician in 24-48 hours.

3. Discussion

Autoerotic behavior is a common reason for rectal foreign body (RFB) insertion, particularly in males. It involves the insertion of foreign objects into the rectum for sexual gratification. The objects used can vary widely, from sex toys and vibrators to household items and even vegetables. In many cases, individuals who engage in autoerotic behavior do not seek medical attention unless there is a complication, such as an object becoming lodged or causing injury. This can lead to delayed diagnosis and treatment, increasing the risk of complications. The shame and embarrassment associated with autoerotic behavior can also be a barrier to seeking timely medical attention. Healthcare professionals should be sensitive to these concerns and create a safe and non-judgmental environment for patients to discuss their condition. It is important to educate patients about the potential risks of autoerotic behavior and encourage them to seek medical attention promptly if they experience any complications. The exact prevalence of autoerotic behavior is unknown, as it is

often underreported due to its sensitive nature. However, studies suggest that it is relatively common, particularly among males. One study found that approximately 10% of men reported engaging in autoerotic behavior at some point in their lives. Autoerotic behavior is typically more common in younger individuals, with the highest prevalence among those aged 15-24 years. However, it can occur at any age. There are a number of psychological factors that may contribute to autoerotic behavior. Individuals may engage in autoerotic behavior out of curiosity or a desire to experiment with new sexual experiences. The insertion of foreign objects into the rectum can stimulate nerve endings and lead to sexual arousal and pleasure. Autoerotic behavior may be used as a way to relieve stress or cope with negative emotions. In some cases, autoerotic behavior may be associated with underlying mental health conditions, such as depression, anxiety, or personality disorders. The objects used in autoerotic behavior can vary widely. Sex toys, vibrators, household items, such as vegetables, bottles, candles, and other objects, such as light bulbs, batteries, and even animals. The choice of object can depend on a number of factors, including personal preference, availability, and the desired level of stimulation. Rectal foreign body impaction occurs when the object becomes lodged in the rectum and cannot be removed. Rectal perforation is a serious complication that can occur if the object punctures the rectal wall. Peritonitis is a life-threatening infection that can occur if the perforation leads to the leakage of fecal matter into the abdominal cavity. Other complications of autoerotic behavior can include rectal bleeding, anal fissures, and hemorrhoids. Individuals who engage in autoerotic behavior should seek medical attention promptly if they experience any complications, such as inability to remove the foreign object, rectal bleeding, severe abdominal pain, and fever. It is important for healthcare professionals to create a safe and non-judgmental environment for patients to discuss their condition. Patients should be educated about the potential risks of autoerotic behavior and encouraged to seek medical attention promptly if they experience any complications. The treatment of autoerotic behavior depends on the specific complications that have occurred. The treatment of rectal foreign body impaction typically involves manual extraction under anesthesia. Rectal perforation requires surgical repair. Peritonitis is a medical emergency that requires prompt treatment with antibiotics and surgery. The best way to prevent complications from autoerotic behavior is to avoid inserting foreign objects into the rectum. Individuals who engage in autoerotic behavior should be educated about the potential risks and encouraged to seek help if they are unable to stop the behavior on their own. Sexual experimentation, particularly among young adults, can also lead to rectal foreign body (RFB) insertion. Individuals may experiment with different objects or practices without fully understanding the potential risks involved. Curiosity, peer pressure, and the desire to explore new sexual experiences can all contribute to RFB insertion in the context of sexual experimentation. Healthcare professionals should provide education and counseling to individuals who engage in sexual experimentation to help them make informed decisions and reduce the risk of complications. It is important to emphasize the importance of safe sexual practices and the potential consequences of inserting foreign objects into the rectum. Accurate data on the prevalence of RFB insertion due to sexual experimentation is limited due to underreporting and the sensitive nature of the topic. However, research suggests that sexual experimentation with RFBs is more common among adolescents and young adults. This population group may be more inclined to explore new sexual experiences and may be less aware of the potential risks involved. Young adults may be curious about exploring different sexual sensations and practices, leading them to experiment with inserting objects into the rectum. Peer influence and the desire to fit in can also play a role in sexual experimentation, including RFB insertion. Individuals may feel pressured to try something new or to conform to the perceived norms of their peer group. Many individuals

may not be fully aware of the potential risks and complications associated with inserting foreign objects into the rectum. This lack of knowledge can lead to uninformed decisions and unsafe practices. Accurate and comprehensive information about safe sexual practices may not always be readily accessible to young adults. This can hinder their ability to make informed decisions about their sexual health. Exposure to pornography can sometimes create unrealistic expectations about sex and may encourage risky sexual behaviors, including RFB insertion. Rectal foreign body (RFB) insertion can be a consequence of sexual assault, a deeply violating and traumatic experience with potential long-term physical and psychological consequences. In these cases, the foreign object is inserted forcibly into the victim's rectum, causing immediate pain, injury, and emotional distress. The act often serves as a means of exerting power and control over the victim, leaving lasting scars that can impact their physical and mental well-being. Healthcare professionals encountering patients with RFBs should be vigilant and sensitive to the possibility of sexual assault. Recognizing the signs, providing compassionate care, and ensuring appropriate support and resources are essential steps in helping victims navigate the aftermath of such a traumatic event. Sexual assault is a pervasive issue, and its true prevalence is often underestimated due to underreporting. Studies indicate that a significant proportion of sexual assault cases involve RFB insertion. However, the exact figures remain elusive due to the sensitive nature of the crime and the reluctance of many victims to come forward. Victims may fear retaliation from the perpetrator if they report the assault. The shame and stigma associated with sexual assault can prevent victims from seeking help or disclosing their experience. Victims may not trust that the authorities will take their report seriously or that justice will be served. Victims may internalize the assault and blame themselves for what happened, leading to feelings of guilt and shame. The physical and psychological impact of sexual assault involving RFB insertion can be severe and long-lasting. The forceful insertion of foreign objects can cause injuries to the rectum, including tears, lacerations, and perforations. RFB insertion can introduce bacteria into the rectum, increasing the risk of infections such as peritonitis. Sexual assault can also transmit STIs, including HIV. Victims may experience gastrointestinal problems, such as constipation, diarrhea, and incontinence. Post-traumatic stress disorder (PTSD) is a common psychological consequence of sexual assault. Symptoms can include flashbacks, nightmares, anxiety, and depression. Depression is another common psychological effect of sexual assault. Victims may experience feelings of sadness, hopelessness, and worthlessness. Anxiety is also a common symptom of sexual assault. Victims may experience excessive worry, fear, and difficulty concentrating. Victims may turn to substance abuse as a way to cope with the trauma of sexual assault. Victims may experience sexual dysfunction, such as decreased libido, difficulty achieving orgasm, and pain during intercourse. Healthcare professionals play a critical role in the care of sexual assault victims. Victims of sexual assault need compassionate and non-judgmental care. Healthcare professionals should create a safe and supportive environment for victims to disclose their experience and receive the necessary medical and psychological care. A thorough medical examination is essential to assess the extent of physical injuries and to collect evidence for potential legal proceedings. Victims should be offered prophylactic treatment for STIs, including HIV. Victims should be provided with information about available mental health services, such as counseling and support groups. Healthcare professionals have a legal and ethical obligation to report sexual assault to the authorities. There are a number of support and resources available for victims of sexual assault. Rape crisis centers provide confidential support and advocacy services to victims of sexual assault. There are a number of hotlines that provide confidential support and information to victims of sexual assault. Therapy can help victims process the trauma of sexual

assault and develop coping mechanisms. Support groups can provide a safe and supportive environment for victims to share their experiences and connect with others who understand what they are going through. Body packing, also known as "internal concealment" or "muleing," is a dangerous practice that involves concealing illicit drugs within the body, often in the rectum. Individuals involved in drug trafficking may swallow or insert drug packets into their rectum or vagina to smuggle them across borders or evade detection by law enforcement. This method poses significant health risks to the individual, as the packaging may rupture or leak, leading to drug overdose and potentially fatal consequences. Drug packets, often wrapped in latex or condoms, are swallowed and intended to pass through the digestive system. Drug packets are inserted into the rectum, taking advantage of the rectum's capacity to store and conceal objects. Similar to rectal insertion, drug packets are inserted into the vagina for concealment. A variety of illicit drugs are commonly concealed through body packing, including cocaine, heroin, methamphetamine, MDMA (Ecstasy), and cannabis. Accidental insertion of foreign bodies into the rectum is a concerning phenomenon that primarily affects young children and individuals with cognitive impairment. These vulnerable populations may insert objects into their rectums out of curiosity, during play, or due to a lack of understanding or judgment. The objects involved can range from small toys and household items to objects found in the environment, posing potential risks to their health and well-being. Healthcare professionals, parents, and caregivers must be aware of the risks associated with accidental insertion and take proactive measures to prevent such incidents. Educating caregivers about child development, safe play practices, and the importance of creating a safe environment can significantly reduce the occurrence of accidental RFB insertion. While the exact prevalence of accidental RFB insertion is unknown due to underreporting, studies suggest that it is more common than previously thought. Children, particularly those between the ages of 1 and 4, are most susceptible to accidental insertion due to their natural curiosity and tendency to explore their bodies and surroundings. Individuals with cognitive impairment, including those with intellectual disabilities, dementia, or autism spectrum disorder, may also be at increased risk due to impaired judgment, impulsivity, or difficulty understanding the consequences of their actions. Underlying psychiatric conditions, such as psychosis or personality disorders, can also contribute to rectal foreign body (RFB) insertion. In these cases, the behavior may be driven by delusions, hallucinations, impaired judgment, or impulsivity. It is important for healthcare professionals to assess underlying psychiatric conditions in patients with RFBs and provide appropriate referrals for mental health evaluation and treatment. The management of patients with RFBs and underlying psychiatric conditions requires a collaborative approach between medical and mental health professionals. Psychosis is a mental health condition characterized by a loss of contact with reality. Individuals with psychosis may experience delusions (false beliefs) or hallucinations (seeing or hearing things that are not there). These symptoms can significantly impair judgment and decision-making, potentially leading to risky behaviors such as RFB insertion. Personality disorders are a group of mental health conditions characterized by inflexible and unhealthy personality traits. These traits can cause significant difficulties in interpersonal relationships and daily functioning. Some personality disorders, such as borderline personality disorder and antisocial personality disorder, have been associated with an increased risk of impulsive and self-destructive behaviors, including RFB insertion.[11,12]

The clinical presentation of rectal foreign bodies (RFBs) can range from asymptomatic to life-threatening, depending on the size, shape, and nature of the foreign body, as well as the presence of complications such as perforation or peritonitis. Patients may present with a variety of symptoms, including abdominal pain, rectal bleeding, tenesmus, constipation, and even sepsis. In this case, the patient

presented with localized abdominal pain and anal discomfort, which is consistent with the location of the foreign body in the rectosigmoid region. The absence of rectal bleeding, fever, or other systemic symptoms suggested that there were no immediate complications such as perforation or peritonitis. Diagnosis of RFBs begins with a thorough history and physical examination, including a digital rectal examination (DRE). Imaging studies, such as plain abdominal radiographs and computed tomography (CT) scans, play a crucial role in confirming the diagnosis and determining the size, shape, and location of the foreign body. Larger or irregularly shaped objects are more likely to cause symptoms than smaller, smooth objects. Objects lodged in the lower rectum are more likely to cause symptoms than those in the upper rectum or sigmoid colon. The material of the foreign body can influence the symptoms. For example, a sharp object is more likely to cause bleeding or perforation than a smooth, blunt object. Some materials may also cause a reaction or inflammation in the rectal tissues. Complications such as perforation or peritonitis can cause severe symptoms, including sepsis. Abdominal pain is often the most common symptom and can range from mild discomfort to severe pain. The location and character of the pain can provide clues about the location and potential complications of the foreign body. Rectal bleeding can occur if the foreign body irritates or injures the rectal mucosa. The amount of bleeding can vary from a small amount of spotting to massive hemorrhage. Tenesmus is a feeling of incomplete defecation and can be caused by the foreign body obstructing the rectum. It can lead to straining and discomfort during bowel movements. Constipation can occur if the foreign body blocks the passage of stool. This can lead to abdominal distention, discomfort, and nausea. Fever may indicate the presence of an infection, such as peritonitis. It is often accompanied by other signs of infection, such as chills, malaise, and elevated white blood cell count. Sepsis is a life-threatening condition that can occur if an infection spreads throughout the body. It can lead to organ dysfunction, shock, and even death. A thorough physical examination is essential in the evaluation of patients with suspected RFBs. Assessment of vital signs includes measuring the patient's blood pressure, heart rate, respiratory rate, and temperature. Abnormal vital signs, such as tachycardia, hypotension, or fever, may indicate the presence of complications. Abdominal examination should be inspected for distention, tenderness, and masses. Auscultation of bowel sounds can help assess for intestinal obstruction. A digital rectal examination (DRE) is essential to assess the rectum for the presence of a foreign body. The DRE can also help determine the size, shape, and location of the foreign body. It is important to perform the DRE gently to avoid causing further injury or discomfort to the patient. Imaging studies play a crucial role in confirming the diagnosis of RFBs and guiding management decisions. Plain abdominal radiographs are often the initial imaging modality of choice, as they can quickly identify radiopaque foreign bodies and assess their location and size. They are readily available and relatively inexpensive. CT scans may be indicated in cases where plain radiographs are inconclusive or when complications such as perforation or peritonitis are suspected. CT scans provide more detailed anatomical information and can help identify associated injuries or complications. They can also help visualize non-radiopaque foreign bodies. The diagnosis of RFBs can be challenging, particularly in patients who are reluctant to disclose the true nature of their condition. Healthcare professionals should be aware of the potential for embarrassment or shame associated with RFBs and approach patients with sensitivity and without judgment. In some cases, the diagnosis of RFBs may be delayed due to the non-specific nature of the symptoms. Patients may present with symptoms that mimic other conditions, such as gastroenteritis or appendicitis. This can lead to delays in diagnosis and treatment, increasing the risk of complications.[13,14]

Obtaining a comprehensive and accurate history is crucial in the management of rectal foreign bodies

(RFBs). Patients may be reluctant to disclose the true nature of their condition due to embarrassment or fear of judgment. However, a detailed history, including the circumstances surrounding the insertion, the nature of the foreign object, and the presence of any associated symptoms, is essential for guiding appropriate management. In this case, the patient initially presented with non-specific abdominal pain. It was only after careful and sensitive questioning that he revealed the self-insertion of the foreign body. This highlights the importance of establishing a rapport with the patient and creating a safe environment for them to share sensitive information. Patients with RFBs may be hesitant to disclose the true nature of their condition due to feelings of embarrassment, shame, or fear of judgment. It is essential for healthcare professionals to establish a rapport with the patient and create a safe and non-judgmental environment for them to share sensitive information. This can be achieved by using empathetic communication techniques, such as active listening, open-ended questions, and reflective statements. It is also important to assure the patient that their information will be kept confidential. The healthcare provider should maintain a calm and reassuring demeanor, demonstrating respect for the patient's privacy and dignity. Body language should convey openness and acceptance, avoiding any judgmental or dismissive cues. Building trust is crucial, especially when dealing with sensitive topics like sexual practices or potential illegal activities. Patients are more likely to be honest and forthcoming when they feel safe and understood. Circumstances surrounding the insertion include the reason for insertion, the type of object inserted, and the method of insertion. Understanding the context of the insertion can help guide management decisions and identify potential complications. For example, if the object was inserted during sexual activity, there may be a higher risk of rectal injury or sexually transmitted infections. Nature of the foreign object includes the size, shape, and material of the object. This information is crucial for determining the appropriate extraction method and assessing the risk of complications. Large or irregularly shaped objects may require surgical intervention, while sharp objects may pose a risk of perforation. Associated symptoms include any abdominal pain, rectal bleeding, tenesmus, constipation, or other symptoms. The presence and severity of symptoms can help assess the urgency of the situation and guide the initial management approach. Medical history includes any relevant medical conditions, such as previous abdominal surgeries or gastrointestinal disorders. Certain medical conditions may increase the risk of complications from RFB insertion. Social history includes the patient's sexual history and any history of substance abuse. This information can provide valuable context for understanding the reasons behind the RFB insertion and identifying potential risk factors. As mentioned earlier, patients may be reluctant to disclose the true nature of their condition due to embarrassment or fear of judgment. This reluctance can hinder the healthcare provider's ability to obtain accurate information and provide appropriate care. Patients with altered mental status, such as those under the influence of drugs or alcohol, may be unable to provide a reliable history. This can make it difficult to assess the situation accurately and determine the appropriate course of action. Language barriers can make it difficult to communicate effectively with the patient. This can hinder the healthcare provider's ability to obtain a complete and accurate history. Cultural sensitivities may need to be considered when discussing sensitive topics such as sexual practices. Healthcare providers should be mindful of cultural differences and avoid making assumptions or judgments based on their own cultural background. Conduct the interview in a private setting and assure the patient that their information will be kept confidential. This can help build trust and encourage the patient to be more open and honest. Use active listening, open-ended questions, and reflective statements to encourage the patient to share information. Show empathy and understanding, acknowledging the patient's feelings

and concerns. Maintain a neutral and non-judgmental demeanor throughout the interview. Avoid making any assumptions or judgments about the patient's behavior or lifestyle. If there is a language barrier, use a qualified interpreter to facilitate communication. Ensure that the interpreter is culturally sensitive and understands the nuances of the situation. Be mindful of cultural sensitivities when discussing sensitive topics. Avoid making any assumptions or generalizations based on the patient's cultural background.[15,16]

Imaging studies play a vital role in confirming the diagnosis of rectal foreign bodies (RFBs) and guiding management decisions. They provide crucial information about the size, shape, location, and nature of the foreign body, helping healthcare professionals assess the situation and plan the appropriate intervention. In addition, imaging studies can help identify potential complications, such as perforation or obstruction, which may require immediate surgical intervention. Plain abdominal radiographs, commonly known as X-rays, are often the initial imaging modality of choice in evaluating suspected RFBs. They are readily available, relatively inexpensive, and can quickly identify radiopaque foreign bodies, such as those made of metal, glass, or dense plastic. Plain radiographs can be obtained quickly and easily in most emergency departments or radiology clinics. Compared to other imaging modalities, plain radiographs are relatively inexpensive. Plain radiographs can effectively visualize radiopaque foreign bodies, providing information about their size, shape, and location. Plain radiographs can also help assess for complications, such as intestinal obstruction or free air in the abdomen, which may indicate perforation. Plain radiographs cannot visualize non-radiopaque foreign bodies, such as those made of wood, plastic, or soft materials. Plain radiographs provide limited anatomical detail, making it difficult to assess the extent of rectal injury or identify subtle complications. CT scans may be indicated in cases where plain radiographs are inconclusive or when complications such as perforation or peritonitis are suspected. CT scans provide more detailed anatomical information and can help identify associated injuries or complications. CT scans can visualize both radiopaque and non-radiopaque foreign bodies, providing a more comprehensive assessment of the situation. CT scans provide detailed anatomical information, allowing for a thorough evaluation of the rectum and surrounding structures. CT scans can identify subtle complications, such as small perforations or abscesses, that may not be visible on plain radiographs. CT scans can help guide surgical planning in cases where surgical intervention is necessary. CT scans are more expensive than plain radiographs. CT scans involve a higher radiation dose compared to plain radiographs. In some cases, intravenous contrast may be necessary to enhance the visualization of certain structures, which may pose a risk to patients with kidney disease or allergies to contrast media. In addition to plain radiographs and CT scans, other imaging modalities may be used in specific situations. Ultrasound can be helpful in evaluating for free fluid or abscesses in the abdomen. It is also useful in assessing rectal injury, especially in children. MRI can provide detailed images of the rectum and surrounding tissues, but it is not commonly used in the initial evaluation of RFBs due to its limited availability and higher cost. Flexible sigmoidoscopy is a minimally invasive procedure that involves inserting a flexible tube with a camera into the rectum. It allows for direct visualization of the rectum and can help identify the foreign body and assess the extent of rectal injury.[17,18]

The management of rectal foreign bodies (RFBs) is a multifaceted challenge that requires careful consideration of various factors, including the size, shape, and location of the foreign body, the presence of complications, and the patient's overall clinical condition. The primary goal is to safely remove the foreign body while minimizing the risk of complications and preserving the patient's rectal function. In most cases, transanal extraction under direct visualization is the preferred approach, with a

success rate of approximately 90%. Various techniques and instruments have been described for transanal extraction, including manual extraction, forceps, snares, and vacuum devices. Surgical intervention, such as laparotomy or laparoscopy, is reserved for cases where transanal extraction is unsuccessful or contraindicated, or when complications such as perforation or peritonitis are present. The surgical approach aims to safely remove the foreign body while minimizing morbidity and mortality. In this case, the foreign body was successfully removed with manual transanal extraction under spinal anesthesia. This approach was chosen due to the size and location of the foreign body, the absence of complications, and the patient's stable clinical condition. The size and shape of the foreign body are critical factors in determining the appropriate extraction method. Small, smooth objects may be easily removed with manual extraction or forceps, while larger or irregularly shaped objects may require more advanced techniques or surgical intervention. The location of the foreign body also influences management decisions. Objects lodged in the lower rectum are generally easier to remove transanally, while those located higher in the rectum or sigmoid colon may require surgical intervention. The nature of the foreign body, such as its material and fragility, can also influence management decisions. Sharp or fragile objects may require more careful handling to avoid causing further injury or complications. The presence of complications, such as perforation, peritonitis, or intestinal obstruction, significantly influences management decisions. These complications often require immediate surgical intervention to prevent further deterioration of the patient's condition. The patient's overall clinical condition, including their age, comorbidities, and mental status, can also influence management decisions. Patients with significant comorbidities or altered mental status may require more careful monitoring and management. Transanal extraction is the preferred approach for removing RFBs in most cases. Manual extraction involves using fingers or a lubricated hand to gently remove the foreign body. This technique is often successful for small, smooth objects located in the lower rectum. Forceps can be used to grasp and remove foreign bodies that are not easily accessible with manual extraction. Different types of forceps are available, including alligator forceps, ring forceps, and basket forceps. Snares are thin wires that can be looped around the foreign body and used to pull it out. They are particularly useful for removing objects that are higher in the rectum or have a slippery surface. Vacuum devices use suction to extract the foreign body. They can be helpful for removing objects that are difficult to grasp with forceps or snares. Surgical intervention is reserved for cases where transanal extraction is unsuccessful or contraindicated, or when complications such as perforation or peritonitis are present. Laparotomy is an open surgical procedure that involves making an incision in the abdomen to access the rectum and remove the foreign body. It is typically reserved for complex cases or when there are concerns about potential complications. Laparoscopy is a minimally invasive surgical procedure that involves inserting small instruments and a camera through small incisions in the abdomen. It is less invasive than laparotomy and is associated with faster recovery times. The choice of anesthesia for RFB extraction depends on the complexity of the procedure and the patient's overall clinical condition. Local anesthesia may be sufficient for simple manual extraction of small objects. Conscious sedation may be used for more complex transanal extractions or for patients who are anxious or unable to cooperate with the procedure. Regional anesthesia, such as spinal or epidural anesthesia, may be used for surgical interventions or for patients with significant comorbidities. General anesthesia may be necessary for complex surgical procedures or for patients who are unable to tolerate other forms of anesthesia. After the foreign body has been removed, it is important to assess for any rectal injury or complications. This may involve a digital rectal examination (DRE), sigmoidoscopy, or proctoscopy. Patients should be

monitored for signs of complications, such as bleeding, infection, or perforation.[19,20]

4. Conclusion

This case report underscores the successful management of a corpus alienum in the rectosigmoid region using manual extraction. The patient presented with a self-inserted plastic bottle lodged in the rectosigmoid, causing lower abdominal and anal pain. Following a thorough assessment, which included a physical examination and imaging studies, the decision was made to perform a manual transanal extraction under spinal anesthesia. The procedure was successful, with complete removal of the foreign object and no resultant complications. This case highlights that prompt diagnosis and appropriate management, including manual extraction when feasible, can lead to successful outcomes in cases of corpus alienum in the rectosigmoid.

5. References

1. Otsuka Y, Nishikawa M, Kinoshita A, Deguchi S, Okita A, Deguchi K. Rectal foreign body of suppository package: risk of self-insertion of suppositories among elderly. Psychogeriatrics. 2022; 22(3): 417–8.
2. Mantha P, Ng JY-S, Elsabagh A, Slack T. Novel technique for retrieval of rectal foreign body using suprapubic catheter. ANZ J Surg. 2022; 92(7–8): 1889–90.
3. Banimostafavi ES, Sharifpour A, Zakariaei Z, Fakhar M, Soleymani M. Rectal foreign body in adult male: unusual case report and literature review. Clin Case Rep. 2022; 10(7): e6062.
4. Okonye J, Holmes S, Hwu R. Rectal foreign body leading to intra-abdominal abscess: an unusual case of child abuse. Vis J Emerg Med. 2022; 28(101392): 101392.
5. Usuda D, Kaneoka Y, Sugita M. Case study of rectal foreign body (plastic container of liquid glue) used as remedy for constipation. Vis J Emerg Med. 2023; 30(101614): 101614.
6. Frendt E, Masroor M, Saied A, Neeki A, Youssoffi S, Malkoc A, et al. Characteristics and outcomes associated with emergent rectal foreign body management: a retrospective cohort analysis. Cureus. 2023; 15(11): e49413.
7. Pinto MYP, Wee C, Jarmin M. Management of rectal foreign body: a rare complication with colonic intussusception. ANZ J Surg. 2023; 93(3): 766–7.
8. Lian C, Hou J-G, Wang J, Liu X-J, Li X-L. An unusual rectal foreign body: a sundried corn-stick. Trop Doct. 2023; 53(2): 307–8.
9. Seyedhossienidavarani S, Zangi M, Eftekhari M. A rectal foreign body with peritoneal signs. Vis J Emerg Med. 2023; 31(101671): 101671.
10. Kaoukabani G, Gokcal F, Vallar K, Bahadir J, Kudsi OY. Robotic rectal foreign body extraction - A video correspondence. Colorectal Dis. 2023; 25(5): 1068–9.
11. Parsh S, Oh HAE, Parsh B. Caring for a patient with a rectal foreign body. Nursing. 2023; 53(9): 11–2.
12. Hassine HB, Chaka A, Ouertani F, Jabra SB, Korbi I, Noomen F. Management of a rectal entrapped foreign body: a case report. Pan Afr Med J. 2024; 48.
13. Hosoya T, Harada K, Kanetake J. A rectal foreign body with giant bladder stone; An autopsy case of unusual autoerotic death. Forensic Sci Int: Rep. 2024; 10(100385): 100385.
14. Borges Chaves C, Santos L, Mendes S, Figueiredo P. A long rectal foreign body successfully removed after colonoscopy. Rev Esp Enferm Dig. 2024.
15. Atrish B, Dasta KR. Rectal foreign body in male: a case report. Int J Multidiscip Res. 2024; 6(2).
16. A Patel K, Vaishnani B V. Rectal foreign body: a case report. Int J Sci Res (Raipur). 2024; 13(6): 1288–90.

17. Sun H-R, Zhang F-J, Yu D-F. Rectal perforation caused by a huge foreign body in rectum. Asian J Surg. 2024.
18. Patel S, Gillett C. Rectal foreign body: an unusual case of self-harm. Cureus. 2024.
19. Pokharel A, Singh JK, Khadka BR, Adhikari S, Dhakal S. Rectal foreign body and its association with social stigma and mental health: a case report. Int J Surg Case Rep. 2024; 124(110236): 110236.
20. Schellenberg M, Brown CVR, Trust MD, Sharpe JP, Musonza T, Holcomb J, et al. Rectal injury after foreign body insertion: Secondary analysis from the AAST contemporary management of rectal injuries study group. J Surg Res. 2020; 247: 541–6.