



A TERMINAL ILEUM FOREIGN BODY PRESENTING AS A MALIGNANT CAECAL MASS: A RARE CASE REPORT AND REVIEW OF LITERATURE

Gastroenterology

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ABSTRACT

Background: Foreign body ingestion is a common clinical issue, often leading to complications like obstruction or perforation. Bezoars, masses of indigestible material, are rare in adults but may mimic malignancies, complicating diagnosis and treatment. **Aims & Objectives:** To present a rare case of a foreign body in the terminal ileum mimicking a malignant caecal mass, and to highlight the diagnostic challenges and management strategies involved. **Methods:** A 42-year-old male presented with a 3-month history of an abdominal mass, weight loss, and gastrointestinal symptoms. After clinical and imaging evaluations, diagnostic laparoscopy followed by exploratory laparotomy was performed. A large foreign body composed of tangled rope threads was surgically removed from the terminal ileum. **Results:** Postoperative care included parenteral nutrition and gradual reintroduction of oral intake. The patient recovered well and was discharged on postoperative day 13 after psychiatric evaluation. **Conclusions:** This case emphasizes the need for a multidisciplinary approach in diagnosing and managing rare foreign body-induced intestinal obstructions, particularly in patients with atypical presentations.

KEYWORDS

Foreign body ingestion; Bezoar; Intestinal obstruction; Diagnostic challenges; Exploratory laparotomy

INTRODUCTION

Foreign body ingestion is a relatively common clinical problem, but when these objects become lodged within the gastrointestinal tract, they can present with serious complications. Bezoars, which are masses of indigestible material such as hair, fibers, or other substances, are a well-documented cause of gastrointestinal obstructions.¹ These conglomerates can form anywhere along the digestive tract, often leading to symptoms like abdominal pain, discomfort, nausea, or more severe issues such as gastrointestinal bleeding, perforation, or obstruction. Although bezoars can occur in individuals of all ages, they are more common in patients with behavioral disorders, abnormal gastric motility, or altered gastrointestinal anatomy.

In rare cases, foreign bodies in the intestines may masquerade as malignancies, complicating the diagnosis and delaying appropriate treatment. This case report highlights an unusual presentation of a foreign body in the terminal ileum mimicking a malignant caecal mass, ultimately causing subacute intestinal obstruction. The patient, with a history of psychological issues, unknowingly ingested a tuft of thread three years prior, which later presented as a right lower abdominal lump with associated pain.¹

Diagnosing such cases can be challenging due to the non-specific symptoms and the radiolucency of certain foreign objects, making imaging studies inconclusive. In instances where conventional diagnostic tools fail, physicians are often left to perform exploratory surgery or endoscopy to locate and remove the obstruction. This case underscores the importance of considering foreign body ingestion as a differential diagnosis, especially in patients with behavioral concerns, and provides insights into the diagnostic approach and management strategies for such rare presentations.

This case not only highlights a unique clinical presentation but also stresses the importance of a thorough patient history and a high index of suspicion in diagnosing foreign body obstructions that could easily be mistaken for more ominous conditions, such as malignancies.

MATERIAL AND METHODS

A 42-year-old male patient presented with a 3-month history of abdominal mass, weight loss, and generalized weakness. After initial clinical evaluation, laboratory tests were conducted, showing borderline elevated leukocyte counts and low hemoglobin levels. Imaging studies, including a contrast-enhanced computed tomography (CECT) scan, revealed a mass in the right lower abdomen, suspected to

be neoplastic.

Following stabilization, diagnostic laparoscopy was attempted on the third day after admission, but dense peritoneal adhesions prevented visualization of the mass, leading to an exploratory laparotomy. Intraoperatively, a firm intraluminal mass was identified in the terminal ileum. A longitudinal enterotomy was performed to extract a large foreign body composed of tangled rope threads, followed by primary repair of the ileum.

Postoperatively, the patient was managed with parenteral nutrition and close monitoring. Oral intake was gradually resumed, and a psychiatric evaluation was conducted to address underlying issues. The patient recovered well and was discharged on postoperative day 13. Ethical approval and informed consent were obtained for this study.

Case Report

A 42-year-old male presented to the emergency department with a 3-month history of right lower abdominal mass, loss of appetite, weight loss, and generalized weakness. He also reported abdominal pain, distension, vomiting for 6 days, and an inability to pass flatus or stools for 3 days. The patient experienced intermittent low-grade fever over the last 6 days but had no similar complaints in the past or family history. He disclosed taking unknown medications from an unauthorized Ayurvedic practitioner for sexual wellness two years ago.

On examination, the patient had low blood pressure, tachycardia, and fever. He was poorly built but conscious and oriented. Abdominal examination revealed distension, a fixed firm lump in the right lower quadrant, and sluggish bowel sounds, though there was no tenderness or skin abnormalities. Percussion over the lump produced a dull note.

Laboratory investigations indicated borderline elevated leukocyte counts and low hemoglobin levels. A bedside ultrasound showed dilated bowels, and an abdominal X-ray revealed multiple air-fluid levels, suggesting bowel obstruction. After initial resuscitation, a contrast-enhanced computed tomography (CECT) scan of the abdomen was performed.

The scan revealed a large right lower quadrant mass and a left renal cyst. Based on these findings, a neoplastic lesion was suspected, correlating with the patient's clinical presentation and imaging results.

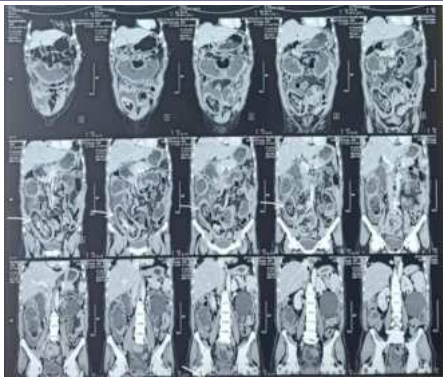


Figure 1: Coronal section of a contrast-enhanced CT (CECT) of the abdomen revealing a mixed-density lesion within the lumen of the terminal ileum, accompanied by a large cyst located at the superior pole of the left kidney, with visible bowel distension. (The white arrow indicates the lesion).

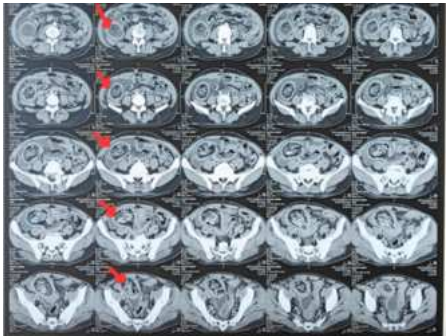


Figure 2: Axial section of the lower abdomen highlighting the mass lesion, with the red arrow pointing towards it.

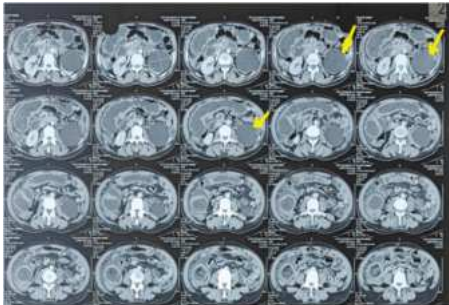


Figure 3: Axial section of the abdomen displaying a large cyst located on the left kidney.

Management

After the patient was stabilized through initial resuscitation efforts, a diagnostic laparoscopy was scheduled on the third day of admission with proper informed consent. However, the procedure revealed dense peritoneal adhesions, making it impossible to visualize the suspected mass. Consequently, we opted for an exploratory laparotomy to further investigate.

During the laparotomy, a firm, sizable mass was palpated in the terminal ileum, about 10 cm proximal to the ileocecal junction. A longitudinal enterotomy was performed at the site, exposing a large foreign body mixed with biliofecal content that was protruding under pressure. To facilitate removal, the incision was extended, and a rare foreign body consisting of tangled rope threads was carefully extracted. The enterotomy site was then repaired using standard primary closure techniques.

Postoperative care included parenteral nutrition tailored to the patient's weight and nutritional requirements. By the third day post-surgery, the patient exhibited bowel sounds and successfully passed flatus. On day 4, oral intake was resumed starting with sips of liquids, progressing to a soft diet as tolerance allowed. The patient's recovery was smooth, with steady improvement in his overall condition.

After thorough psychiatric evaluation and counseling to address the underlying psychological factors contributing to the foreign body ingestion, the patient was discharged in stable condition on the 13th postoperative day. The management plan and surgical approach were successful, ensuring a positive outcome for this rare presentation.

Table 1 Risk Factors for Foreign Body Ingestion in Adults

Risk Factor	Description
Edentulous Adults	Lack of teeth increases the risk of accidentally swallowing foreign objects.
Illicit Drug Users	Foreign body ingestion common due to smuggling drugs inside the body.
Prisoners	Intentional ingestion of foreign bodies is more common in this population.
Alcoholics	Impaired judgment can lead to accidental ingestion.
Psychiatric Patients	Deliberate ingestion due to psychiatric disorders.
Adults with Mental Retardation	Reduced awareness and oral tactile sensation increase the risk.
Decreased Oral Tactile Sensation	Physical conditions that reduce sensation may lead to accidental ingestion.

Table 2 Common Complications of Foreign Body Bezoars

Complication	Frequency in Cases	Description
Small Bowel Obstruction (SAIO)	Common	Obstruction caused by bezoar blocking the intestinal passage.
Erosion	Rare	Wearing down of the gastrointestinal lining by the bezoar.
Perforation	Less Common	Rupture of the gastrointestinal tract, leading to peritonitis.
Abscess	Rare	Formation of a localized pus collection due to infection.
Ulceration	Rare	Development of ulcers in the GI tract caused by the bezoar.
Gastrointestinal Bleeding	Less Common	Caused by damage to the GI tract by the bezoar.
Perforation Peritonitis and Sepsis	Rare but Life-threatening	Infection and inflammation due to perforation, leading to sepsis.
Gangrenous Bowel	Rare	Death of bowel tissue due to severe obstruction or delayed treatment.

Table 3 Management Options for Bezoars

Management Approach	Success Rate	Description
Medical Management (Cellulase, Papain)	Effective for Phytobezoars	Cellulase or papain used to break down plant-based bezoars (Phytobezoars).
Combination Therapy (Cellulase, Cysteine, Metoclopramide)	Variable	Combined therapy for treating more complex cases of phytobezoars.
Endoscopic Removal (Suction, Fragmentation)	Moderate	Effective for upper GI bezoars, using water jets and suction to remove fragments.
Exploratory Laparotomy	High	Surgical removal of bezoar, especially in cases of small bowel obstruction.
Surgical Resection with Anastomosis	High	Required in cases where gangrene or perforation has occurred.



Figure 4: A sizable foreign body combined with biliofecal matter attempting to protrude from the intestine.



Figure 5: It shows the enterotomy incision was enlarged due to the size of the mass.



Figure 6: It shows the foreign body was extracted from the ileum.

Table 4 Outcomes of Foreign Body Ingestion Cases

Outcome	Percentage of Cases	Comments
Spontaneous Passage without Intervention	75-80%	Majority of foreign bodies pass without any intervention.
Endoscopic Removal	10-20%	Required for cases where the foreign body is too large or obstructing.
Surgical Intervention (Laparotomy)	~1%	Needed in severe cases with complications like perforation or obstruction.
Complications (Perforation, Gangrene, Sepsis)	<5%	Life-threatening cases that require immediate surgical intervention.

Table 5 Comparison of Foreign Body Bezoar and Phytobezoar Management

Management	Foreign Body Bezoar	Phytobezoar
Medical Management (Cellulase, Papain)	Not Effective	Effective
Endoscopic Suction and Fragmentation	Less Effective, especially in terminal ileum	More effective for upper GI tract bezoars
Risk of Perforation	High when using medical management	Low
Surgical Intervention Required	Often required due to nature of obstruction	Less often required

DISCUSSION

Foreign body ingestion is predominantly observed in the pediatric population, accounting for 75-85% of cases involving foreign bodies in the upper gastrointestinal tract. However, edentulous adults, as in this case, are also at elevated risk. [3] Complications from foreign body ingestion may include small bowel obstruction, erosion, perforation, abscess formation, ulceration, and even death, particularly when the foreign body becomes lodged at anatomically narrow or angulated sites within the gastrointestinal tract. Timely diagnosis and appropriate surgical intervention are critical in preventing life-threatening complications.[4]

While foreign body ingestion is more common in children, high-risk

adults, such as prisoners, illicit drug users, edentulous individuals, alcoholics, psychiatric patients, and those with decreased oral sensation, are also susceptible. Management of foreign body bezoars, especially in adults, is often more challenging compared to phytobezoars, which can sometimes be treated non-surgically with cellulase or papain. However, these treatments are not effective for all types of bezoars, particularly those in the terminal ileum. Attempting medical management or prokinetic agents in such cases may worsen the obstruction and increase the risk of bowel perforation.

In rare cases, such as the one reported by Shrestha et al. [5], perforation occurred after delayed diagnosis of a foreign body in the bowel, leading to severe complications like sepsis and gangrene. Similarly, Chaudhery et al. [6] described a case where emergency surgery was required to resect the affected bowel due to obstruction and perforation caused by a bezoar. In another case report by Shah et al. [7], a phytobezoar resulted in bowel gangrene, necessitating resection and ileo-ileal anastomosis.

While most ingested foreign objects pass spontaneously, approximately 10-20% of cases require endoscopic intervention, and 1% necessitate surgical treatment. In this case of a terminal ileum foreign body mimicking a malignant caecal mass, the importance of a thorough differential diagnosis is highlighted. Despite initial concerns of malignancy, careful evaluation revealed an unexpected foreign body, underscoring the importance of considering rare causes in unusual clinical presentations. Continued awareness and research into the management of foreign body bezoars are essential to improving patient outcomes.[2]

CONCLUSION

This case highlights the complexities of diagnosing and managing foreign body ingestions, particularly when presenting as subacute intestinal obstruction in adults. While more common in children, adults with risk factors such as psychiatric disorders or altered oral sensation are also vulnerable. In this case, the large tuft of thread in the terminal ileum required surgical removal after diagnostic imaging and thorough clinical evaluation. Despite available medical and endoscopic treatments for bezoars, the nature and location of the obstruction necessitated surgical intervention. The successful outcome emphasizes the importance of a multidisciplinary approach involving surgeons, gastroenterologists, and radiologists in managing such cases. Additionally, a detailed patient history, physical examination, and advanced imaging like CT scans are essential for accurate diagnosis and treatment planning. This case contributes to the growing awareness of foreign body-related gastrointestinal complications and the need for ongoing research to improve treatment strategies and patient outcomes.

Conflict Of Interest:

All authors declare no conflict of interest.

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None.

Consent:

As per international standards or university standards written participant consent has been collected and preserved by the authors.

Ethical Approval:

As per international standards or university standards written ethical permission has been collected and preserved by the author(s).

REFERENCES

1. Paschos KA, Chatzigeorgiadis A. Pathophysiological and clinical aspects of the diagnosis and treatment of bezoars. *Ann Gastroenterol*. 2019;32(3):224-232. doi:10.20524/aog.2019.0370.
2. Scuri S, Kozol R. Foreign Bodies and Bezoars of the Stomach and Small Intestine. In: Yeo CJ, editor. *Shackelford's Surgery of the Alimentary Tract*, 2 Volume Set. 8th ed. Elsevier; 2019. p. 750-754. doi:10.1016/B978-0-323-40232-3.00064-9.
3. Eng K, Kay M. Gastrointestinal bezoars: history and current treatment paradigms. *Gastroenterol Hepatol (NY)*. 2012;8(11):776-8.
4. Singh G, Sharma S, Khurade S, Gooptu S. Ingested foreign bodies in children: a report of two cases. *J Family Med Prim Care*. 2014;3(4):452-5. doi:10.4103/2249-4863.148148.
5. Shrestha N, Regmee S, Kharel A, Guragai M. Ileal perforation secondary to bowel obstruction caused by foreign body bezoar: A case report. *Ann Med Surg (Lond)*. 2022;82:104564. doi:10.1016/j.amsu.2022.104564.
6. Chaudhery B, Newman PA, Kelly MD. Small bowel obstruction and perforation secondary to primary enterolithiasis in a patient with jejunal diverticulosis. *BMJ Case Rep*. 2014;2014. doi:10.1136/bcr-2014-203833.
7. Shah D, Desai AB. Isolated ileal bezoar causing small bowel obstruction. *BMJ Case Rep*. 2012;2012. doi:10.1136/bcr.01.2012.5656.