

## Intestinal Trichobezoar Mimicking Appendicular Peritonitis: A Case Report and Review of the Literature

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### Abstract

### Case Report

Trichobezoars are rare gastrointestinal foreign bodies primarily composed of ingested hair. They predominantly affect adolescent females with psychiatric conditions such as trichophagia or trichotillomania. This case report highlights the diagnostic challenges and surgical management of an intestinal trichobezoar that presented as acute appendicular peritonitis in a 10-year-old girl. Early diagnosis and prompt surgical intervention are critical to avoid complications such as bowel obstruction or perforation.

**Keywords:** Trichobezoar, Appendicular Peritonitis, Pediatric Surgery, Trichophagia, Trichotillomania.

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## INTRODUCTION

Bezoars are masses of indigestible materials in the gastrointestinal tract, with trichobezoars specifically formed from hair, sometimes mixed with other substances. Although rare, these can extend from the stomach to the intestines, as seen in Rapunzel syndrome. Predominantly affecting adolescent females with psychiatric disorders, trichobezoars require surgical treatment and psychological support to prevent recurrence. Their nonspecific symptoms make timely diagnosis challenging, as they can mimic other acute abdominal conditions like appendicitis. This case report discusses a 10-year-old girl whose symptoms, initially suggestive of appendicular peritonitis, were caused by an intestinal trichobezoar, highlighting the need to consider this condition in pediatric acute abdomen cases.

## CASE REPORT

A 10-year-old girl, with no significant prior medical history, was admitted to the emergency department with a 7-day history of worsening abdominal pain, aggravated by a 2-day history of bowel obstruction and fever. There was no known history of psychiatric

disorders such as trichophagia or trichotillomania, and no prior incidents of hair-pulling or ingestion.

The patient presented with diffuse abdominal pain, primarily localized to the right iliac fossa. Additional symptoms included nausea, vomiting, and constipation. On examination, she had a high fever (38.9°C), diffuse abdominal tenderness, and guarding in the right iliac fossa, suggestive of appendicular peritonitis.

Radiological imaging suggested pelvic peritonitis. Laboratory tests revealed leukocytosis with a neutrophilic predominance (16,500 cells/ $\mu$ L), elevated C-reactive protein (26 mg/L), hyponatremia (125 mmol/L), and hypokalemia (3.2 mmol/L).

A midline laparotomy revealed an intestinal trichobezoar obstructing three loops of the small intestine proximal to the ileocecal valve. There was a clear, reactive peritoneal effusion, but the appendix appeared normal. The trichobezoar, composed of hair and wool, was successfully extracted via an ileotomy (Figures 1).



**Figure 1: (A) Intraoperative view of the small bowel loops showing signs of obstruction by the trichobezoar. (B) Extraction of the trichobezoar through an enterotomy, (C) The trichobezoar removed from the patient, composed of hair and wool**

The patient's postoperative course was uneventful, with oral feeding resumed on postoperative day 5 and discharge on day 10. She was referred for pediatric psychiatric evaluation to address underlying trichophagia.

## DISCUSSION

Trichobezoars are predominantly found in adolescent girls and are strongly associated with psychiatric disorders such as trichophagia and trichotillomania. However, only a minority of pediatric patients with trichobezoar exhibit significant psychiatric conditions. The clinical presentation is often nonspecific, with symptoms ranging from mild abdominal discomfort to severe complications such as intestinal obstruction, perforation, or even peritonitis.

Diagnosis relies on a combination of clinical suspicion, imaging studies (including radiography, ultrasound, and CT), and endoscopy. Given the rarity of trichobezoars, they are often not initially considered in the differential diagnosis of acute abdomen, which can delay appropriate treatment.

Surgical removal remains the treatment of choice, particularly for large bezoars or those causing significant obstruction. Endoscopic retrieval is often insufficient for large or complex bezoars. In this case, the initial presentation mimicked appendicular peritonitis, highlighting the diagnostic challenge posed by trichobezoars.

A multidisciplinary approach, involving pediatric surgeons, gastroenterologists, and psychiatrists, is crucial for the comprehensive management of trichobezoars. Psychiatric evaluation and intervention are critical in preventing recurrence, as trichobezoars

have a high rate of reformation if the underlying behavioral disorder is not addressed.

## CONCLUSION

Intestinal trichobezoars should be considered in the differential diagnosis of acute abdomen in pediatric patients, especially in the presence of atypical clinical findings or psychiatric history. Early diagnosis and surgical intervention are essential to prevent life-threatening complications such as bowel perforation or peritonitis. Long-term psychiatric follow-up is necessary to address underlying behavioral issues and to prevent recurrence.

## Ethical Considerations

Informed consent for publication was obtained from the patient's guardians, ensuring compliance with ethical standards.

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