Original Research Paper

Volume - 15 | Issue - 08 | August - 2025 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Paediatrics

CASE REPORT: A 6-YEAR-OLD MALE CHILD WITH TRICHOBEZOAR AND RAPUNZEL SYNDROME: A CASE OF GASTRIC OUTLET OBSTRUCTION

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ABSTRACT Trichobezoars are conglomerates of hair and food particles that typically form in the stomach and are often associated with a condition known as Rapunzel syndrome, where a long hairball extends from the stomach into the small intestine. In this case, we describe a 6-year-old male child with a history of habitual hair ingestion since childhood, presenting with intermittent abdominal pain, distention, and episodes of vomiting. His diagnostic evaluation, including an upper gastrointestinal endoscopy (UGIE), revealed a large trichobezoar causing gastric outlet obstruction. The patient underwent successful laparoscopic surgery to remove the bezoar and resolve the obstruction. The patient recovered well and was discharged on the fifth postoperative day. This case emphasizes the importance of early recognition and appropriate management of trichobezoars, particularly in children with a history of pica behavior.

KEYWORDS : Trichobezoars,Rapunzel syndrome, gastric outlet obstruction, pica

INTRODUCTION

Trichobezoars are a rare but well-documented form of bezoars, consisting primarily of hair ingested over time. They are often seen in individuals with psychological conditions such as trichotillomania (the compulsive urge to pull out one's hair) or trichophagia (the compulsive eating of hair). The condition is more commonly found in young females but has also been reported in males. The Rapunzel syndrome refers to an extreme variant of trichobezoar, in which the hairball extends from the stomach into the small intestine, causing serious complications like gastric outlet obstruction, small bowel perforation, or intussusception. This case report describes the presentation, diagnosis, and management of a 6-year-old male child with a trichobezoar complicated by gastric outlet obstruction and intussusception.

Methodology

A detailed case report of a 6-year-old male child with a history of hair ingestion was prepared based on clinical findings, imaging results, endoscopic examination, and operative details. The patient's diagnostic workup, including upper gastrointestinal endoscopy, radiological studies, and laboratory investigations, was analyzed to understand the extent of the bezoar and the associated complications.

Case Report

A 6-year-old male child presented with intermittent abdominal pain, distension, and episodes of vomiting. His parents reported a history of hair ingestion (trichophagia) since early childhood, along with previous hair removal via upper gastrointestinal endoscopy (UGIE). The child had also passed hair in stools and exhibited signs suggestive of gastric outlet obstruction. UGIE performed on April 4, 2025, revealed a large, sausage-shaped trichobezoar measuring approximately 10 cm × 5 cm, composed of hair and food particles, occupying the stomach with intermittent impaction at the pyloric region and its tail extending into the second part of the duodenum (D2)—a presentation consistent with Rapunzel syndrome. Laboratory tests revealed anemia (Hb 7.8 g/dL), leukopenia (TLC 3310/µL), and a mildly decreased platelet count (1.44 lakh/µL). The child underwent laparoscopic laparotomy under general anesthesia, with an incision placed above the umbilicus and below the xiphoid along the greater curvature. A large clump of trichobezoar was successfully removed, and an associated intussusception was identified and corrected intraoperatively. The postoperative period was uneventful, with the child showing progressive improvement and being discharged in stable condition on the fifth postoperative day.

Fig.1-UGI endoscopy showing Trichobezoar.

DISCUSSION:

Trichobezoars and Rapunzel Syndrome:

Trichobezoars are a rare phenomenon characterized by the accumulation of hair and food particles in the stomach. The condition is primarily associated with children and young adults with pica behavior, particularly trichophagia. In severe cases, the hairball can extend into the small intestine, leading to Rapunzel syndrome, a rare and life-threatening complication. The hair mass in Rapunzel syndrome can cause symptoms such as nausea, vomiting, abdominal pain, weight loss, and signs of bowel obstruction. When left untreated, trichobezoars can lead to more serious complications, including gastric perforation, intestinal obstruction, and even death.

Diagnosis: The diagnosis of trichobezoars relies heavily on clinical suspicion, a detailed patient history, and imaging techniques such as UGIE and abdominal CT scans. In this case, the UGIE provided a clear visualization of the trichobezoar, confirming the diagnosis of gastric outlet obstruction. Additionally, the tail of the bezoar extending into the duodenum highlighted the severity of the obstruction, which further validated the need for prompt surgical intervention.

Management: The treatment of trichobezoars typically involves surgical removal. Endoscopic removal is possible for small bezoars, but larger bezoars, especially those with extensions into the small intestine, often require laparoscopic or open surgery. In this case, laparoscopic surgery was successfully performed, with removal of both the bezoar and the associated intussusception. Postoperative management includes fluid and nutritional support, along with careful monitoring for any complications.

Psychological Aspects: While the primary concern in this case was the physical complications associated with the bezoar, it is important to note the psychological component of trichophagia. Children with this habit may require psychiatric evaluation to address the underlying behavior and prevent recurrence of hair ingestion. A multidisciplinary approach, including counseling and behavioral therapy, may be beneficial in preventing long-term recurrence.

CONCLUSION:

Trichobezoar with Rapunzel syndrome is a rare but significant condition that can lead to serious gastrointestinal complications if not diagnosed and treated promptly. Early recognition, supported by a thorough history and diagnostic imaging, is crucial in preventing complications such as gastric outlet obstruction and small bowel perforation. Surgical removal remains the mainstay of treatment, with laparoscopic techniques offering a minimally invasive approach. Follow-up care and psychiatric evaluation are essential to address the underlying psychological factors that contribute to this condition.

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