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# Isolated Jejunal Trichobezoar Causing Perforation – A Case Report

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**Abstracts**
**Background**- *Trichobezoar is a rare condition caused by ingestion of hair which gets accumulated and forms a mass that cause obstruction and very rarely perforation.*
**Methods** - *We report the rare case of a 6 year old girl who presented severe abdominal pain and distension for 3 days, vomiting for 2 days and obstipation for 1 day. Investigations revealed jejunal obstruction with contained perforation due to trichobezoar and was successfully treated with surgery.*
**Conclusion**- *Trichobezoars should be considered as a differential diagnosis if there is typical clinical presentation in a girl. With a high level of suspicion, prompt diagnosis and treatment, trichobezoars have a good prognosis.*
**Keywords**: *Intestinal Obstruction, Jejunal Perforation, Laprotomy, Trichobezoar, Trichophagia.*

## Introduction

A bezoar defined as a collection of undigested foreign bodies inside the gastrointestinal tract. Bezoars have been classified into four types: phytobezoars (caused by vegetables), trichobezoars (caused by hair), lactobezoars (caused by milk, curds), and miscellaneous. The most common forms are phytobezoars and trichobezoars. tract. Trichobezoars are initially asymptomatic but over a period of time, continuous ingestion of hair leads to the impaction of hair together with mucus and food. They are commonly found in stomach, rarely located in small bowel, in which ileum is the most common site. Primary small-bowel bezoars without any gastric bezoar are even uncommon.

Overall incidence in the general population varies from 0.4%-1%[1]. It usually occurs in young and adolescent females. Pediatric incidence of trichobezoar is 0.3%[2]. Trichobezoar are often associated with psychiatric illness like trichotillomania and trichophagia. Trichophagia is a compulsive eating of hair as a result of pica – an eating disorder manifested by an appetite for non-

nutritive substances and often associated with mental retardation. Trichotillomania is defined as when someone cannot resist the urge to pull out their hair where they may pull out the hair on their head or in other places, such as their eyebrows or eyelashes.

The most common presentation is abdominal pain (37%), nausea and vomiting (33.3%), obstruction (25.9%), and peritonitis (18.3%). Less frequently, patients have presented with weight loss (7.4%), hematemesis, anorexia or intussusception[3]. A preoperative diagnosis of trichobezoar should be considered in a patient presenting with severe halitosis, patchy alopecia, suggestive of trichotillomania and trichophagia. Trichobezoar can cause severe complications, such as gastric mucosal erosion, ulceration and even perforation of the stomach or the small intestine which is extremely rare.

We hereby report a unique case of this rare entity - an isolated jejunal trichobezoar of 10 cm length causing jejunal obstruction with contained perforation in a 6 year old child which was diagnosed with contrast studies and computed tomography and subsequently treated with surgery.

**Case Report**

A 6 year old girl presented with complaints of diffuse abdominal pain for 3 days associated with abdominal distension. Later child developed multiple episodes of vomiting for 2 days which was initially non bilious and then bilious. Child also had complaints of obstipation for 1 day. Mother also gives history of on and off abdominal pain for last 1 year along with constipation for which she was on regular laxatives and also history of reduced appetite and poor weight gain. Mother also gives history of ingestion of hair and other non edible substances lying on ground but there was no history of trichotillomania. No history of fever or loose stools or any psychiatric illness in family. On examination, child was conscious but dehydrated and malnourished with wasting and pallor. The vitals were stable and was afebrile. Examination of abdomen revealed gross distension with umbilicus shifted downwards and a tender mass of 8 x 5 cm palpable over the left hypochondrium and lumbar region extending to umbilical region with localized guarding, firm in consistency with irregular surface and well defined borders. Digital rectal examination showed only loaded rectum.

Child was initially stabilized with high grade broad spectrum antibiotics, analgesics and fluid therapy. Laboratory investigations showed anaemia and leucocytosis with elevated C reactive protein. Upper GI contrast series showed overdistended stomach and proximal jejunal loops with delayed contrast flow [Fig.1a]. Contrast enhanced CT abdomen showed a well defined intraluminal heterogeneous, non enhancing mass with pockets of air enmeshed and the mass extends from proximal jejunum to distally for a length of 10cm, separated from bowel wall. Proximal bowel appeared to be dilated and stomach showed no luminal mass [Fig.1b].

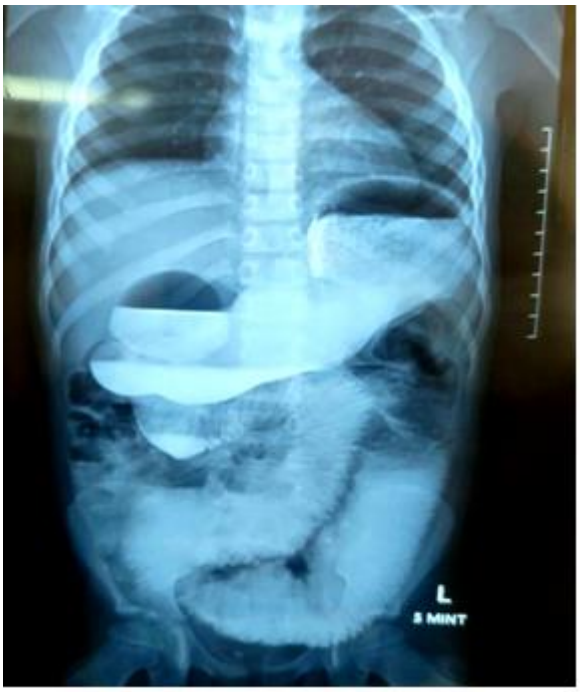


**Fig 1a-** Upper GI series showing delayed contrast flow

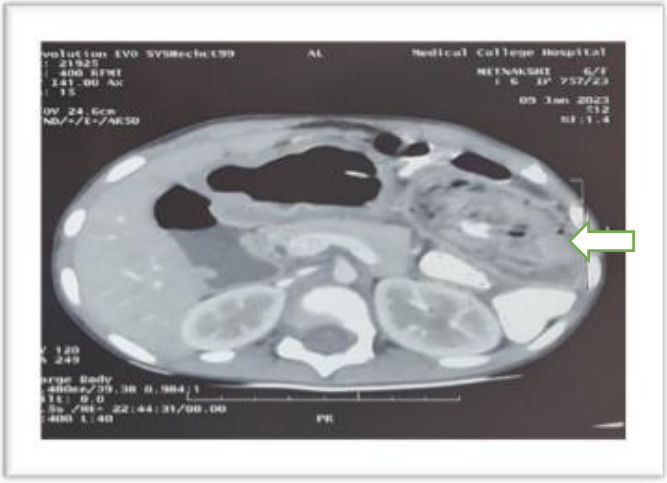

**Fig 1b-** CECT image suggestive of jejunal trichobezoar

Child was taken up for exploratory laprotomy which revealed a large trichobezoar obstructing the lumen of jejunum for a length of 10cm about 7 cm distal to the DJ flexure; with contained perforation of jejunum and multiple abscess formation [Fig 2]. Stomach and the rest of the bowel was empty. Around 40cm of the diseased jejunum was resected and end to end anastomosis was done. Child recovered well with an uneventful postoperative period. Child was discharged on 10th postoperative day with psychiatric referral.

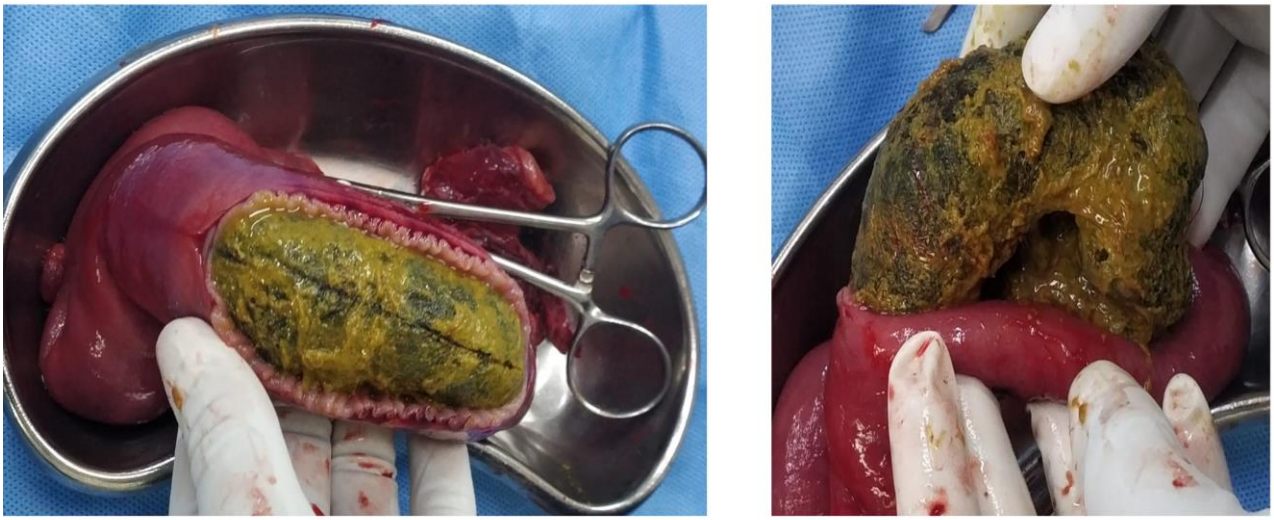

**Fig 2-** Cut open specimen demonstrating the trichobezoar
Fig 2a- Length of resected portion of jejunum containing the trichobezoar
Fig 2b- Cut open specimen demonstrating the trichobezoar

**Discussion**

The term 'Trichobezoar' was derived from Greek word trich, meaning hair and bezoars meaning collections of indigestible material. Swain first described trichobezoar while conducting an autopsy in 1854. Once the bezoars extend from the stomach into the jejunum or further, it is referred to as "Rapunzel Syndrome," which was first described in 1968[4]. The stomach is not able to exteriorize hair out of the lumen because of its smooth surface and peristalsis is not sufficient for propulsion. During the time, these substances are retained by the mucus and become enmeshed forming the shape of stomach. Hence most bezoars develop in the stomach and if present in the small bowel they are usually located at the level of ileum. Jejunal bezoars are very rare[5]. Most cases are reported in females between 13 and 20 years of age[1]. About 10% of patients have shown psychiatric abnormalities or mental retardation[6].

An upper gastrointestinal series or computed tomography scan should be the imaging modalities if a trichobezoar is suspected[7]. As trichobezoars cannot be dissolved by enzymatic or chemical methods, small gastric trichobezoars can

be removed using mechanical fragmentation endoscopically[8]. However, large and symptomatic trichobezoars must be removed surgically via an open or laparoscopic approach [9, 10]. Symptomatic trichobezoars that cause intestinal obstruction are too hard and large to cut and need to be removed by an open surgical approach. Also it is important to prevent the further formation of trichobezoars through psychiatric support. Behavioral modification and psychotherapy are effective and recommended in all patients to prevent relapse[4]. In this case, the child presented with an isolated jejunal trichobezoar with no associated gastric mass and with contained perforation, both of which are unusual findings of the disease.

**Conclusion**

This case demonstrates the importance of considering trichobezoar in the differential diagnoses for a young patient with abdominal pain of no obvious etiology. Thus a history of trichophagia, pica, or other psychiatric diagnoses is crucial in the evaluation of abdominal pain. With accurate assessment, diagnosis and treatment, the prognosis of trichobezoar is quite good.

**Conflicts of Interest:** None.

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