

Jejunal Trichobezoar-A Rare Cause of
Intestinal Obstruction in Children: A
Case ReportSai Charan PG, Venkatesh M Annigeri*, Akshay Kalavant B, Phalgun V Simha and
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Abstract

A trichobezoar is a mass of cumulated hair within the gastrointestinal tract. Bezoars are rare in children. They are commonly found in stomach. Rarely, bezoars can be located in small bowel, which are most often located in the ileum. Intestinal obstruction due to trichobezor is extremely rare. In this case report we describe an atypical localization of trichobezoar in jejunum (76cm long) causing intestinal obstruction without a primary in stomach in 7 year girl which was managed successfully with surgery.

Introduction

A bezoar is collection of undigested foreign bodies inside the gastrointestinal tract. Bezoars are rare in children. They are commonly found in stomach, rarely located in small bowel. In small bowel bezoars are most often located in the ileum. Overall incidence in the general population varies from 0.4%-1% [1]. Paediatric incidence of trichobezoar is 0.3% [2]. Here in we report a unique case of this rare entity isolated Jejunal trichobezoar of 76 cm length without primary in the stomach In a 7 year child diagnosed with sonography and computed tomography, subsequently treated by surgery.

Case Report

A 7 year girl presented to the emergency department with the complaints of abdominal mass, bilious vomiting, pain abdomen since 2 days. History of trichophagia, anorexia and weight loss since 6 months. On general physical examination she has global developmental delay with grade III Protein energy malnutrition and pallor. Per abdominal examination revealed a hard mass in the right lumbar region with upper abdominal distension. All Haematological investigations were normal except anaemia [Hb-8g/dl] and marked leucocytosis [TLC-20,060 cells/mm³]. Ultrasonography [USG] abdomen revealed abnormal thickmass in the bowel extending from the right iliac fossa to supra-pubic region with dilation of proximal bowel loops. Subsequently underwent Contrast Enhanced Computer Tomography (CECT) abdomen revealed well defined multi-layered heterogeneous, solid non enhancing mass of concentric whorls of mixed density with pockets of air enmeshed within it, the mass extends from proximal jejunum distally, it is separated from bowel wall. Rest of the abdominal organs are normal. (Figure 1A-1C).

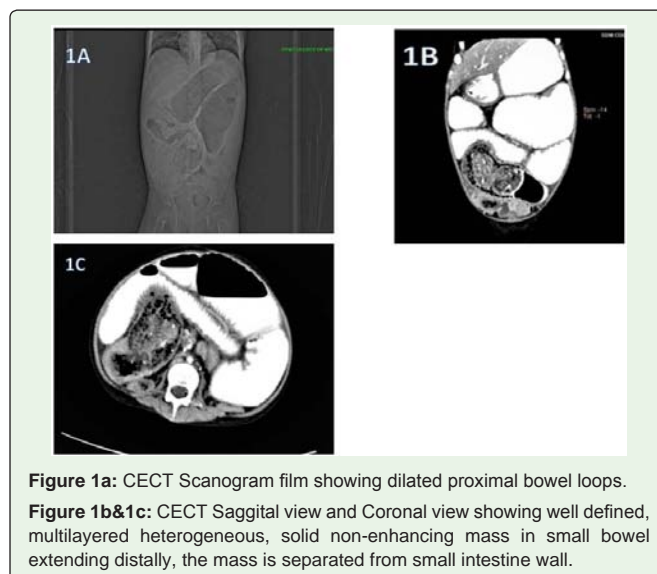


Figure 1a: CECT Scanogram film showing dilated proximal bowel loops.

Figure 1b&1c: CECT Saggital view and Coronal view showing well defined, multilayered heterogeneous, solid non-enhancing mass in small bowel extending distally, the mass is separated from small intestine wall.

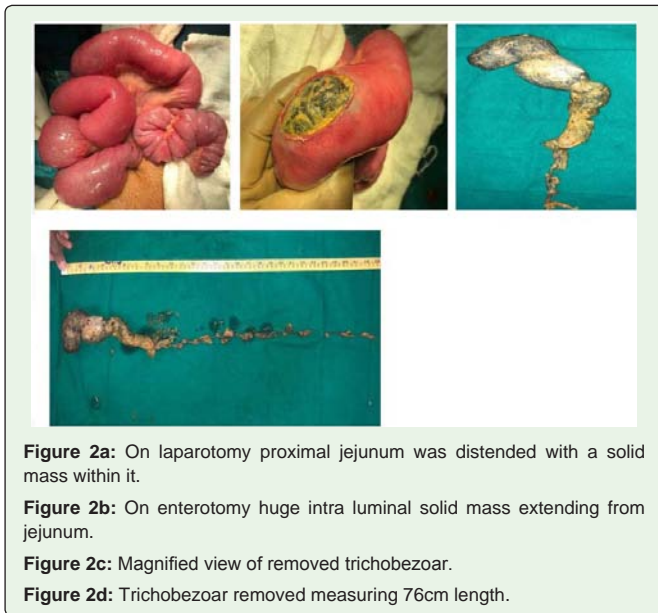


Figure 2a: On laparotomy proximal jejunum was distended with a solid mass within it.

Figure 2b: On enterotomy huge intra luminal solid mass extending from jejunum.

Figure 2c: Magnified view of removed trichobezoar.

Figure 2d: Trichobezoar removed measuring 76cm length.

On laparotomy we found solid mass extending from proximal jejunum [15cm from Treitz angle] to distal jejunum with proximal bowel dilatation (Figure 2A). Trichobezoar mass of 76cm length without any bezoar in the stomach (Figure 2B- 2D) removed by longitudinal enterotomy. Post-operative period was uneventful. She was discharged on seventh postoperative day after psychiatry consultation to prevent the recurrence of condition. In follow up she is doing well, started gaining weight.

Discussion

Trichobezoar is a compact mass of hair that forms in the alimentary canal (especially in the stomach) commonly seen in animals because of licking of hair. Causes of Bezoars include the presence of indigestible material in the lumen, gastric dysmotility (including previous surgery like vagotomy and partial gastrectomy etc.) [1,3]. The stomach is not able to exteriorize hair and other substance out of the lumen because of smooth surface of hair and peristalsis is not sufficient for propulsion. During the time, these substances are retained by the mucus and become enmeshed: this yields a mass having the shape of the stomach localization where they are usually seen [1,4]. Most bezoars develop in the stomach, 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].

Baudamant reported first case of human trichobezoar in 1779 on autopsy of a patient who died from gastric perforation [1,4,6]. In 1896, Stelzner described the first correct preoperative diagnosis of trichobezoar on the basis of physical examination [4]. DeBakey and Ochsner reviewed published literature and showed that 171 cases of trichobezoar, 119 cases of phytobezoar, and 13 cases of other concretions were reported [7]. Schonborn performed the first surgical removal of a trichobezoar in 1883 [4,6]. The first successful laparoscopic removal of a gastric bezoar was reported in 1998 by Nirasawa et al [8].

Clinical manifestations depend on bezoar's location and size. Affected patient can remain asymptomatic for many years, till the bezoar increases in size to the point of intestinal obstruction. Approximately 80% of patients with trichobezoars have epigastric discomfort, up to 70% complain of abdominal pain, 65% complain of nausea and vomiting, 38% have asthenia with weight loss and 33% of patients have intestinal transit problems like diarrhoea or constipation [7]. It also associated with vitamin B12 deficiency secondary to bacterial overgrowth by colonization of bezoars [8]. On examination patient breath acquires a putrid smell due to decomposition and fermentation of fats [1]. One of rare complication is small bowel obstruction as seen in our patient, decreased intestinal motility is the most quoted factor in intestinal bezoar formation, it is caused either due to migration of gastric bezoars to the small bowel by fragmentation of portion, extension or total translocation or it may be primarily be found in the small intestine with diseases like intestinal diverticulum, stricture or tumour. Radiological investigations help in diagnosis of bezoars [1,6]. USG shows a typical curvilinear trichobezoar with bright echogenic band, this does not allow transmitting the ultrasound waves thus generates a shadow between bezoar and bowel wall is pathognomonic. CECT scan is the preferred modality for evaluation of suspected cases of trichobezoar [7]. It can depict an intraluminal, well defined, heterogeneous non enhancing mass with mottled appearance due to the entrapped air among the hair ball. It can depict the exact size, site and extent of the lesion [6,7]. A mottled gas pattern in the mass is suggestive of bezoar.

Most of bezoars need surgical intervention. The adopted therapeutic approach (laparoscopy, endoscopy or laparotomy) depends on size and location [1]. In our case due to location at the jejunum an endoscopic attempt to remove the bezoar was not possible. The distension hindered a laparoscopic approach and for this reason a laparotomy was performed. Even though many new modalities have been proposed, laparotomy is still the gold standard for removal of bezoar, due to high success rates, low complexity and ability to examine entire Gastro intestinal system for satellite bezoars in short period of time [8]. Total of 108 cases have been reported in children till now of which 100 children have been treated by laparotomy showed 100% success results and had 12% of complications which include perforation of intestine during removal, minor wound infection, pneumonia, paralytic ileus, ileal trichobezoar, faecal leakage from laparotomy wound [1,8]. Prognosis of trichobezoars is quite good only if psychiatry follow up is strictly maintained, therefore it should be made compulsory as a part of management [7,9].

Conclusion

Trichobezoars should be considered as a differential diagnosis if there is typical clinical picture of a girl with anaemia, weight loss, abdominal pain with long standing abdominal mass. After removal of bezoar parental counselling, appropriate psychiatric treatment, follow up and behavioural therapy is mandatory to prevent recurrence.

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