



Isolated Trichobezoar of Ileum

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Abstract:

Bezoars are masses of solidified organic or non-biological material commonly found in the stomach and small bowel. A trichobezoar is a mass of hair found in stomach or less commonly in the small bowel (Rapunzel syndrome), frequently seen in psychic patients (Trichotillomania). Trichobezoar generally presents with vague symptoms like anorexia, anemia, weight loss and recurrent abdominal pain. Bezoars can lead to obstruction, irritation and damage to the gastric wall and malnutrition. Intestinal obstruction due to trichobezoar is extremely rare. We hereby present a unique case of 14 year old girl with isolated ileal trichobezoar causing intestinal obstruction. Surgical retrieval of trichobezoar was done successfully.

Key words: Abdominal Pain, Bezoars, Hairs, Intestinal Obstruction, Malnutrition.

Introduction

The term bezoar refers to accumulation/impaction of foreign material in the gastrointestinal tract and is known to occur in human and animals for centuries. Bezoars from the intestine of animals were originally worn as charms and promoted as remedies to prevent disease. Bezoars were also ground into potions for use as antidotes; the term bezoar comes from either the Arabic “badzehr” or Persian “padzehr” or Hebrian “beluzaar” which all means antidote or counter poison [1]. Bezoars can be classified in four types: phytobezoar (vegetable), trichobezoar (hair), lactobezoar (milk/curd) and miscellaneous (fungus, sand, paper) [2]. The most common type of bezoar in adults is phytobezoar, while trichobezoars are more often found in children and teenage girls [3]. Trichobezoars typically

occur in the stomach and rarely affect the small intestine causing small bowel obstruction. Primary small bowel bezoars without any associated gastric bezoars are uncommon. The most common sites of trichobezoars are the gastric outlet or duodenum whereas obstruction of distal parts of the small bowel or the large bowel without is extremely rare [4]. Here we report an extremely rare case of trichobezoar of the ileum not associated with a trichobezoar in stomach.

Case Report

A fifteen year old girl had abdominal pain for four months. She presented to the emergency department with various symptoms of abdominal distension,

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vomiting and non-passage of flatus and stools for last seven days. On general physical examination patient was thin built, afebrile, dehydrated, pulse rate of 96/minute and blood pressure of 106/72 mm Hg. The abdomen was distended with peritoneal signs. The laboratory assessment revealed marked leukocytosis of 15000/mm³. Other laboratory data including electrolytes, liver function tests, blood urea, serum creatinine, and serum amylase were all within normal range. Plain abdominal radiograph showed multiple air-fluid levels without any free gas under the diaphragm. Abdominal ultrasound revealed telescoping of one gut loop into another (intussusception). Laparotomy was done with a midline incision, which revealed significantly dilated and distended small bowel loop with a bowel mass in the ileum measuring around 20 cm in length and 5 cm in width situated at 30 cm from the ileo-cecal junction. Enterotomy was performed and an unclean foul smelling mass of hairs in the form of a bunch was found [Fig.1,2]. The mass was removed and the enterotomy was sutured. There were no bezoars, neither in the stomach nor in the duodenum and proximal jejunum. The post-surgery course was uneventful and the patient was referred to the psychiatry department for further treatment.

Discussion

Trichobezoars, although rare, are most common in children and young women. DeBakey and Ochsner studied 311 cases of trichobezoar and found that almost 90% occurred in teenage females [5]. There is an association with mental retardation and psychiatric conditions; almost half of patients present with trichophagia [6]. Rapunzel syndrome occurs when the trichobezoar has extended into the duodenum and small intestine and manifests itself with nausea, vomiting, anorexia and weight loss. It was first reported in the West Indies by Duncan *et al.* in 1994 [7]. The diagnosis is based on a combination of good history taking as well as physical findings to look for a family history of



Fig.1: Enterotomy site with trichobezoar in terminal ileum.



Fig.2: Trichobezoar.

psychiatric disorders, previous bezoars, a palpable mass, patchy hair loss and halitosis.

Decreased intestinal motility is the most quoted factor in intestinal bezoar formation [8]. X-ray abdomen in a case of intestinal trichobezoar is generally suggestive of multiple air fluid levels. CT-scan is the most useful diagnostic tool in patients with bezoars because it reveals the localization of bowel obstruction; it shows also a well-defined intraluminal mass in the transitional zone of the obstruction. A mottled gas pattern in the mass is reported characterizing the bezoar, and it is supposed to be air bubbles retained within the bezoar [9].

Surgical management is the mainstay of treatment in a case of intestinal bezoar. The bezoar plus its tail can be removed via gastrotomy and sometimes multiple enterotomies to reduce risk of gut perforation, as long bezoar tails are often extremely adherent to the side of the gut wall [10]. The treatment for isolated ileal trichobezoar consists of removing the mass by a single enterotomy or resection of the bowel if not feasible [8]. Duncan *et al.* recommended bezoar extraction by multiple enterotomies in the Rapunzel syndrome. DeBakey and Oschner reported a surgical mortality of 10%. It is mandatory to perform a thorough exploration of all the small intestine and the stomach searching for retained bezoars [5]. The patient should be followed up in psychiatry OPD after discharge from the hospital.

Conclusion

The patient is being reported to highlight trichobezoar should always be suspected in a young female with features suggestive of intestinal obstruction with or without a diagnosed psychiatric illness. CT Abdomen is the investigation of choice and surgical intervention (exploratory laparotomy) is the treatment of choice. It is mandatory to perform a thorough exploration of all the small intestine and the stomach searching for retained bezoars during exploratory laparotomy.

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