

Gastric trichobezoar presenting as gastric outlet obstruction – a case report

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ABSTRACT

Trichobezoars are impactions of swallowed hairs in the stomach and occasionally in the intestine. They occur in emotionally disturbed, depressed, or mentally retarded patients who have trichotillomania and trichophagia. Removal of gastric trichobezoar by open surgery (gastrotomy) is a standard approach. Psychiatric follow-up is needed to diminish the recurrence of trichotillomania and trichophagia. Here, we report a case of large gastric trichobezoar presenting as gastric outlet obstruction in a 13-years-old girl. She was treated with open surgical extraction of the bezoar and behavioral therapy.

Keywords: Bezoar; trichobezoar; gastric outlet obstruction.

Trichobezoars are impactions of swallowed hairs in the stomach and occasionally in the intestine. They occur in emotionally disturbed, depressed, or mentally retarded patients who have trichotillomania and trichophagia. It is almost exclusively seen in girls.¹

The term "trichotillomania" was coined late in the 19th century to describe the recurrent pulling out of one's own hair. The most notorious of the medical sequelae of trichotillomania is trichobezoar. Therefore, treatment should address not only the removal of trichobezoar itself, but management of trichotillomania as well. Here, we report a case of large gastric trichobezoar presenting as gastric outlet obstruction.

CASE

A 13 years-old-girl presented with chief complaints of upper abdominal lump since last 4 months, and nonbilious vomiting 20-40 minutes after meals since last two months. She lost 12 kg weight during this period. In last two months, her parents noticed that she was pulling out and eating her own hairs. Family history was unremarkable. On examination, she was apprehensive, but well oriented in place, person and time. Abdominal examination revealed hard, partly mobile intrabdominal nontender, nonpulsatile mass starting at left hypochondrium and extending unto umbilical region – 35x21 cm in size. Blood counts and biochemical analysis of blood were within normal limits. CT scan of abdomen (Fig. 1) showed a huge foreign body in stomach, which was moderately dilated.

Patient was taken for laparotomy with the diagnosis of gastric trichobezoar with gastric outlet obstruction. Anterior gastrotomy and extraction of trichobezoar was done. Trichobezoar was 27x12x7 cm in size and 980 gram in weight (Fig. 2). It was snugly fitting into the whole gastric lumen and first part of duodenum. Postoperative period was uneventful. She was consulted with a psychiatrist and was put on behavioral therapy. In a follow-up of eight months, she does not have recurrence of symptoms, and her parents have not noticed her ingesting hair.

DISCUSSION

A colorful history regarding the remarkable "medicinal" qualities of animal bezoars exists, and the term is derived from the ancient Arabian badzehr or the Persian padzahr, both meaning antidote.² The first human case, a trichobezoar in a 16-year-old male, was described in 1779, and since then, over 200 cases of trichobezoar have been reported in the literature.³

Trichobezoars are usually found in the stomach, but may also be found in the duodenum, ileum, jejunum, colon, or Meckel's diverticulum. The term "Rapunzel syndrome", first described by Vaughan in 1968, has been given to trichobezoars extending from stomach to the ileocecal valve.⁴

Symptoms of trichobezoars develop gradually and insidiously; they are often intermittent and usually vague and nonspecific in the beginning: anorexia, weight loss, nausea, and abdominal pain or discomfort. As the hair ball gets larger, vomiting, hematemesis, and intolerance of solid foods may

complete the clinical picture. In addition to intraluminal obstruction, trichobezoars may produce complications by bleeding, perforation, steatorrhea, and intussusception.^{5,6} On physical examination, a large, firm, freely movable epigastric mass may be palpated.

Plain radiograph of the abdomen and barium contrast study may be diagnostic, but endoscopy has been shown to be the technique of choice, because it allows the clinician to distinguish between phytobezoars and trichobezoars. Whereas phytobezoars may be softened by enzymatic dissolution, followed by endoscopic fragmentation using snare, forceps, or water pick, it is known that removal of trichobezoars usually requires open surgery.⁷

During the past 10 years, several investigators have undertaken the treatment of large gastric trichobezoars in a so-called minimally invasive manner. The first group⁸ subjected a 14-year-old girl to several endoscopic sessions in which attempts to fragment the bezoar first with a water-pick system, later with an Nd: YAG laser failed; extracorporeal shock wave lithotripsy failed as well. Their conclusion was that nonsurgical methods were of little use and had no place in the treatment of gastric trichobezoar. A second case⁹ was managed by endoscopic removal using three sessions of 2 to 3 hours' duration each, during which it was necessary to pass the endoscope more than a hundred times in all. In a third case,¹⁰ a large gastric trichobezoar was fragmented and removed with laparoscopic instrumentation using two large percutaneous gastrotomy ports. Finally, in a fourth case,¹¹ a large gastric trichobezoar was removed laparoscopically. A long gastrotomy was made laparoscopically, and the bezoar was placed in a plastic bag and retrieved through a suprapubic laparotomy. Kanetaka *et al* removed large gastric bezoar using gastroscopic technique assisted by laparoscopy.¹² The last cases have shown that other methods of treatment are possible, but their superiority to the more conventional technique is questionable. In our opinion, the only advantage, if any, is cosmetic. These newer procedures are reported by surgeons to be complex, time-consuming, and tedious. Moreover, inspection and palpation of the entire intestine for the presence of other bezoars and their eventual removal appears to be more difficult. After careful analysis of these case reports, it seems that that these procedures must be restricted to smaller trichobezoars.

A multimodal approach, involving surgeons, gastroenterologists, pediatricians, and psychiatrists in the management of the patient with trichobezoar should always be considered to avoid the recurrence.³

A combination of pharmacotherapy and behavioral therapy probably offers the most clinical benefit to adolescent and adult trichotillomanics. Currently, selective serotonin reuptake inhibitors (SSRIs) are the most popular medications for the treatment of this disorder, although long-term data are not available in defining their efficacy.¹³

Our patient was consulted with psychiatrist, and currently she is on behavioral therapy. Eight months post surgery, her parents did not notice her ingesting hair. In conclusion, we recommend open surgery for the large formations. More important is the need for psychiatric follow-up, which seems essential to diminish the frequency of recurrence of this problem.

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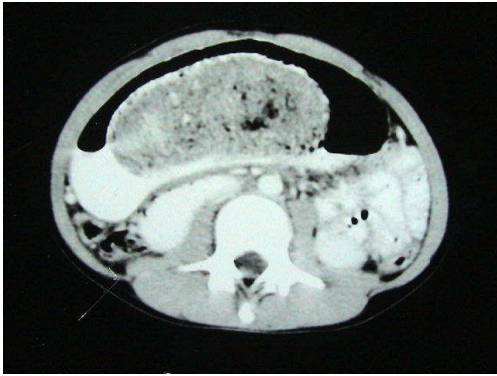


Fig. 1. CT finding of the case



Fig. 2. Extracted trichobezoar.