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Research Paper

Gastric trichobezoar extended through the small bowel, suggestive of Rapunzel syndrome- A case report

Medical Science

KEYWORDS : Trichobezoar, trichophagia, trichotillomania

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ABSTRACT

A bezoar is a mass of undigested material within the gastrointestinal tract. A trichobezoar is a mass of undigested hair within the gastrointestinal tract. Trichobezoar is a rare condition posing a diagnostic dilemma. Patients with this condition often have an underlying psychiatric illness. The condition should be entertained especially in young psychiatric females. Here we present a rare case of young female patient with gastric trichobezoar extended through the small bowel,suggestive of Rapunzel syndrome.

INTRODUCTION

The word bezoar is derived from the Arabic "*badzehr*" meaning antidote.[1] They are foreign bodies formed in the stomach and/or small bowel due to an accumulation of swallowed substances. These substances may be vegetable fibers (phytobezoars), animal fats, plastic or hair (trichobezoar). Gastric trichobezoar, presenting a "tail" extended through the small bowel, is rare and proper of Rapunzel syndrome, first described by Vaughan et al. in 1968.[2,3]

Trichobezoars are often associated with trichotillomania (irresistible will to pull out the own hair) and trichophagia (hair swallowing). Trichobezoars most commonly occur in adolescent females[4], especially with underlying psychiatric illness. The site of hair pulling is most commonly from the scalp, but can occur from the eyelashes,

eyebrows, and pubic area.[5] It is believed that the smooth surface of hairs prevent its propagation by peristalsis and in the presence of both altered gastric anatomy or physiology and continued ingestion of hairs leads to trichobezoar formation.[6,7]

Trichobezoars may present as acute abdomen with partial to complete gastric outlet obstruction with symptoms of pain abdomen, nausea, bilious vomiting, decreased appetite, early satiety or anemia. Ultrasonography is effective in detecting an epigastric mass, although CT-scan is more accurate. The definite diagnosis is established by endoscopy.[6,8,9] Trichobezoars need early treatment, often surgical intervention and psychiatric management.

CASE REPORT

A 21 years old young female presented to surgery opd with complains of epigastric mass and epigastric pain since 3 months. History of increasing frequency of nausea and vomiting especially after solid food intake was obtained. She told the vomitus usually contained the food particles, taken hours before. Early satiety was present and she had loosening of clothes since 4 months. History of dull aching, mild degree, constant pain in epigastrium was present. On physical examination, she had mild pallor and mildly enlarged cervical lymph nodes and sparse scalp hairs. Per abdomen examination revealed a scaphoid abdomen with slightly mobile mass in epigastrium, non tender and firm consistency. History of pulling out her hairs with eating hairs since childhood was elicited. Other vital signs were stable. Laboratory investigations revealed Hb 9.5g % with microcytic anemia. Ultrasonography revealed diffuse echogenicities with posterior acoustic shadowing in the epigastrium and stomach region. Upper GI endoscopy revealed a trichobezoar occupying almost the whole gastric cavity. Patient was planned for exploratory laparotomy and gastrotomy done and a large trichobezoar occupying whole abdomen was removed with a tail of hairs removed from duodenum and jejunum(Fig.1,2). Specimen was mounted in formalin for teaching purpose. Patient was discharged after 8 days of uneventful recovery. A psychiatric evaluation was arranged.

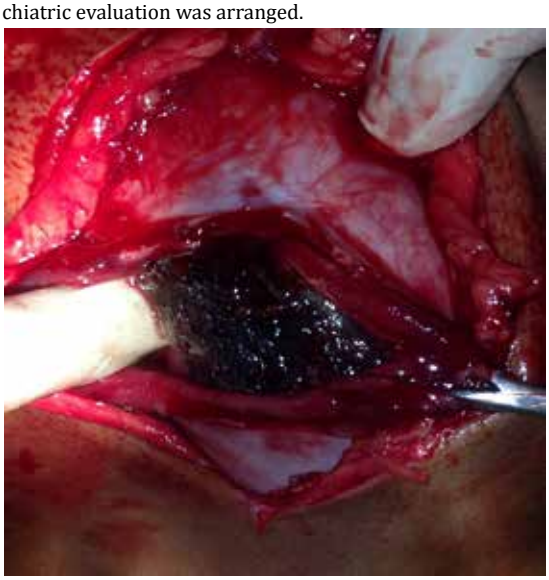

Fig.1.Trichobezoar

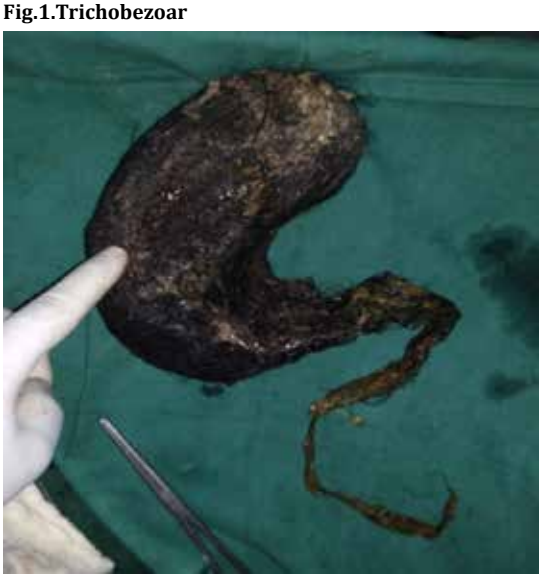

Fig.2. Retrieved specimen

DISCUSSION

The common presentation of trichobezoar is in young females usually with an underlying psychiatric disorder. In our case, the presentation was of a young girl with partial gastric outlet obstruction with hairs extending into small bowel, presenting as rapunzel syndrome. Rapunzel Syndrome is a rare form of trichobezoar. It is named after a tale written in 1812 by the Brothers Grimm about a young maiden, Rapunzel, with long hair who lowered her hair to the ground from a castle, which was a prison tower to permit her young prince to climb up to her window and rescue her. This syndrome was originally described by Vaughan et al. in 1968.[2] The commonly accepted definition is that of a gastric trichobezoar with a tail extending to the jejunum, ileum or the ileocecal junction. Majority of cases of trichobezoar present late, due to the low index of suspicion by the physicians and surgery remains the only option for removal. Less than half of the patients give a history of trichophagia.

There has been few cases of recurrence following surgery if patient psychiatric illness not addressed. Endoscopy is diagnostic in almost all cases and may be therapeutic for small trichobezoars. Open surgery still remains the corner stone of large trichobezoar removal especially if it has an extension into the bowel, which might be missed with other methods of treatment.

CONCLUSION

A trichobezoar should always be considered in younger patients presenting with a mobile upper abdominal mass and a history of trichophagia. Diagnosis and treatment are easy with modern modalities. All patients with trichobezoar should be referred for psychiatric evaluation after surgery to avoid recurrence.

REFERENCE

1.Balik E, Ulman I, Taneli C, Demircan M. The Rapunzel syndrome: a case report and review of the literature. Eur J Pediatr Surg 1993;3:171-3. | 2.Vaughan ED Jr, Sawyers JL, Scott HW Jr. The Rapunzel syndrome: an unusual complication of intestinal bezoar. Surgery 1968; 63:339-43. | 3.Seker B, Dilek ON, Karaayvaz M. Trichobezoars as a cause of gastrointestinal obstructions: the Rapunzel syndrome. Acta Gastro-Enterol Belg 1996;59:166-7. | 4.Phillips MR, Zaheer S and Drugas GT "Gastric trichobezoar: case report and literature review," Mayo Clinic Proceedings. 1998;73(7):653–656. | 5.Christenson GA, Mackenzie TB and Mitchell JE, "Characteristics of 60 adult chronic hair pullers," American Journal of Psychiatry.1991;148(3):365–370. | 6. Coulter R, Antony MT, Bhuta P, Memon MA. Large gastric trichobezoar in a normal healthy woman: Case report and review of pertinent literature. Southern Med J.2005;98:10. | 7. Lee J. Bezoars and foreign bodies of the stomach. Gastrointest Endosc Clin N Am.1996;6:605–19. | 8. Sehgal VN, Srivastava G. Trichotillomania ± trichobezoar: revisited. Eur Acad Dermatol Venereol. 2006;20:911–5. | 9. Carr JR, Sholevar EH, Baron DA. Trichotillomania and trichobezoar: A clinical practice insight with report of illustrative case. J Am Osteopath Assoc. 2006;106:647–52. |