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Surgical extraction of a giant trichobezoar: A rare presentation

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ABSTRACT

Introduction: Trichobezoar occurs when a trichotillomanic patient eats his or her hair after extraction leading to surgical emergency. The aim of this study is to report a case of giant trichobezoar presenting as a abdominal mass and underwent surgical extraction. Case Report: A 14-year-old girl with anorexia, epigastric pain and loss of weight for three month duration. The patient reported history of early satiety and constipation. Abdominal examination showed a palpable, firm, mass in the left hypochondrium. Blood examination revealed hypochromic microcytic anemia with hemoglobin. Computed tomography scan of the abdomen demonstrated intragastric mass with concentric rings with air in between the rings. Endoscopy showed that the stomach was filled with a hairball mixed with food particles that occupy the whole gastric cavity. Through an upper midline incision, a gastrostomy done and the hair ball was extracted. The stomach was closed in double layers using continuous Vicryl and interrupted silk sutures. Post-operative period was uneventful. Conclusion: Trichobezoar is a very rare disorder which may lead to surgical emergency.

Keywords: Hair, Trichobezoar, Trichotillomania

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INTRODUCTION

Trichotillomania is a one's tendency to pull his or her hair which may subsequently be eaten and it is currently considered as a type of impulse control disorder [1]. Early diagnosis and prompt management is highly recommended to avoid various medical and surgical emergencies [2]. For a patient to be diagnosed as a case of trichotillomania should met with the following criteria (a) repeated attacks of hair pulling leading to considerable hair loss; (b) tension felt while trying to resist or prior to the attacks (c) gratification, pleasure or subsiding the tension associated with episode completion. (d) crucial impairment or distress in occupational, social or other essential areas of functioning because of the complaint; and (e) providing that hair pulling is not resulted from other mental or medical diseases [1]. Trichobezoar occurs when a trichotillomanic patient eats his or her hair after extraction leading to surgical emergency [3]. It was first described by Baudomant at the end of the eighteen century. Trichobezoar could result from other psychiatric disorders like depression and anxiety [4].

The aim of this study is to present and discuss a rare case of huge trichobezoar that underwent surgical extraction.

CASE REPORT

A 14-year-old girl presented to the surgical clinic with anorexia, epigastric pain and weight loss for three month duration. The patient had history of early satiety and constipation. There was no history of nausea and vomiting. The patients had no past medical and surgical history. Examination showed a thin girl with normal vital signs with pallor. Abdominal examination revealed a palpable left hypochondrial mass measuring about 15 cm × 15 cm. The mass was firm, not mobile, non tender, not pulsatile with smooth surface. Blood examination revealed hypochromic microcytic anemia with hemoglobin level of 9 mg/dl. Computed tomography scan of the abdomen demonstrated intragastric mass with concentric rings with air in between the rings, with no other abnormal findings (Figure 1). Endoscopy showed that the stomach was filled with a hairball mixed with food particles that occupy the whole gastric cavity (Figures 2 and 3). The patient diagnosed as having trichobezoar and decision for laparotomy done as the facility and experience for laparoscopy is scanty in our locality. Through an upper midline incision, a gastrostomy done and the hair ball that took the shape of the stomach extracted from the gastric cavity (Figure 4). The stomach was closed in double layers using continuous Vicryl and interrupted silk sutures. The patient admitted for three days and discharged home with uneventful post-operative period. The patient was referred for psychiatric consultation.

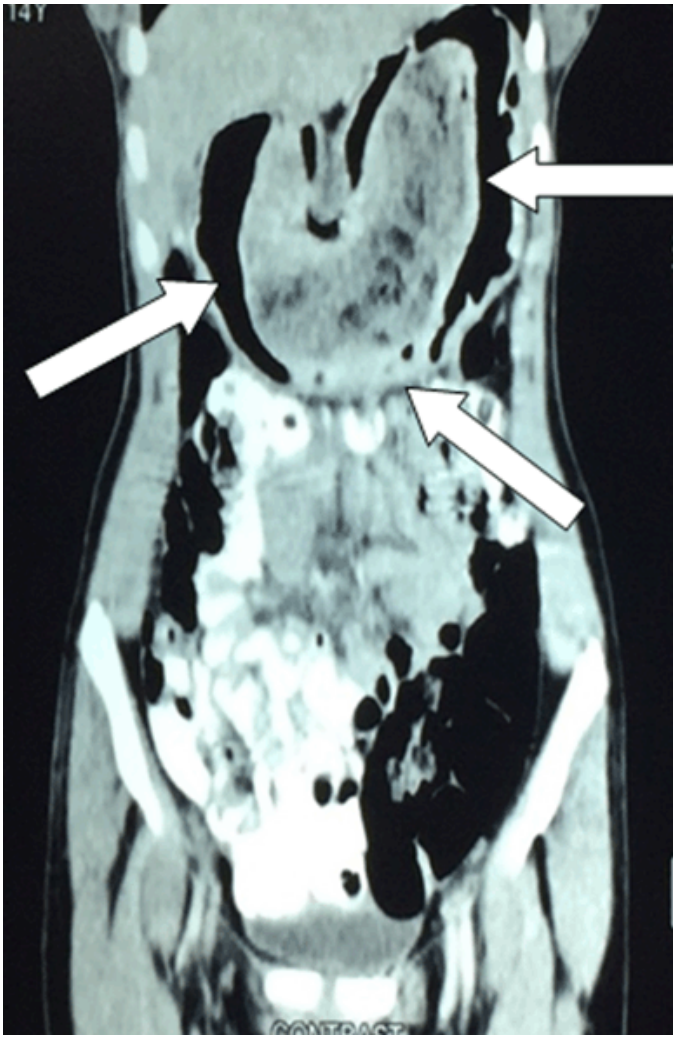

Figure 1: CT scan image showing the hairball inside the gastric cavity (white arrows).

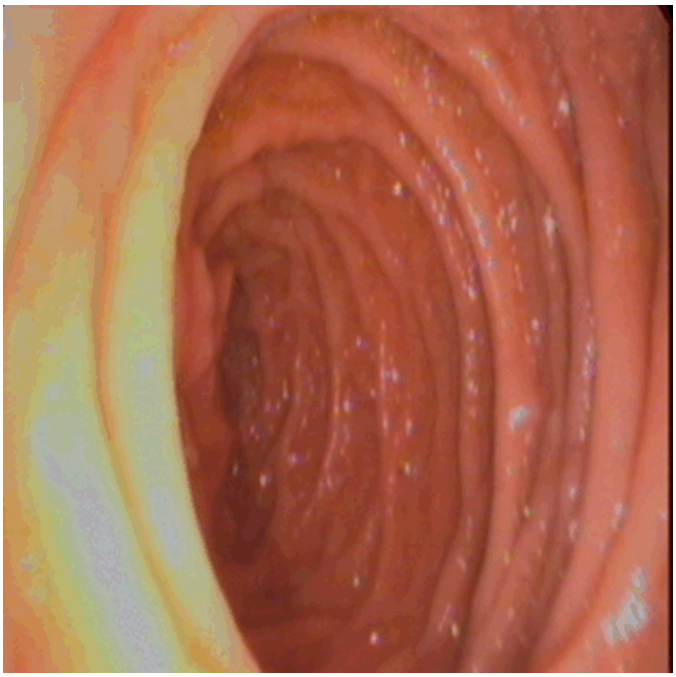

Figure 2: Duodenoscopy showing an empty duodenum with no extension of the hair to the duodenum.

DISCUSSION

A trichobezoar is an extreme rare surgical disorder of young women consisting of a hair ball in the proximal part of the gastrointestinal tract. This may lead to obstruction and subsequent acute abdomen [1, 2]. The current case was a girl with only 14-year of age. Emotional problems including depression and anxiety account for majority of these cases. The prevalence rate varies from 0.06% to 4% [3]. This patient did not show any mood disorder like depression or anxiety.

Trichotillomania (a compulsive urge to pull out one's hair) followed by swallowing the hair (trichophagia) is considered to be one type of pica, which is defined as 'the encessent crying out for and compulsive ingesting of non-food substances', such as soap, hair, sponge, sand and others [5].

Trichobezoars usually due underlying psychiatric conditions, such as, on the top, trichotillomania, followed by depression, obsessive-compulsive disorder and body dysmorphic disorder [6–8]. However, their prevalence and co-morbidity is unclear. Depending on the case series,

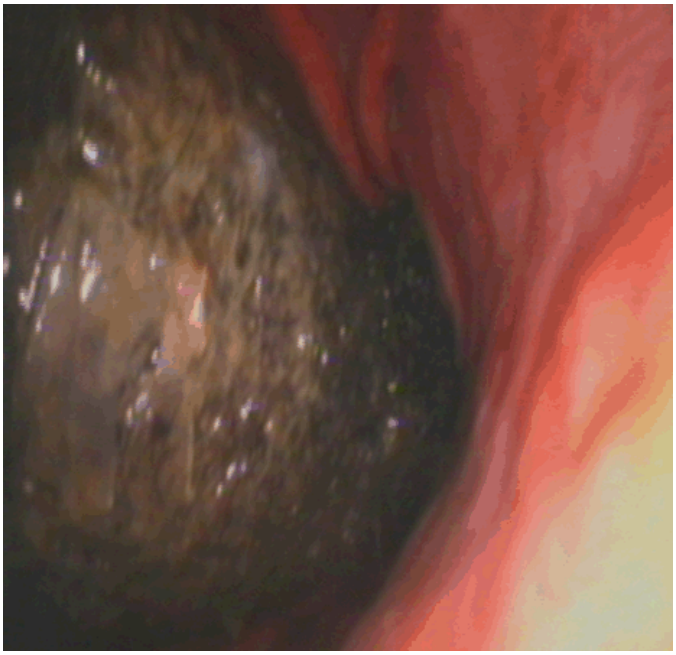

Figure 3: Gastroscopy showing the hair ball that is occupying the gastric cavity.

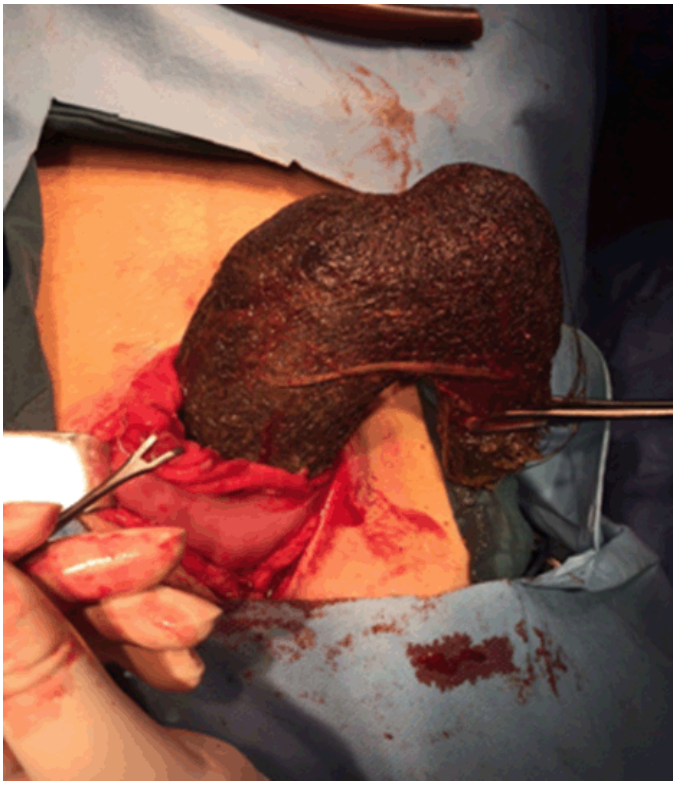

Figure 4: Intraoperative extraction of the hairball from the stomach.

5 to 30% of the patients with trichotillomania engage in trichophagia while 1 to 37.5% of these will develop a trichobezoar[9-13].

When eaten, because of its loose surface, hair confronts peristalsis and digestion, and assembles in the mucosal folds. Impaction of hair may result from continuous intake of hair which is usually mixed with mucus and food, leading to trichobezoar[14]. In addition, intestinal obstruction may occur due to pieces of the broken tail [15–17].

Presentation of the trichobezoar cases delays in most of the time, this is might be explained by low index of suspicion. The current case was diagnosed three months after the first complaint and visited several practitioners. The most common presentation is palpable abdominal mass (87.7%) followed by abdominal pain (70.2%), gasterointestinal upset (nausea and vomiting) (64.9%), weight loss and fatigue (38.1%), constipation or diarrhea (32%) and rarely haematemesis (6.1%). Low level of hemoglobin has been reported in about 62% of the cases [15].

The diagnosis of trichobezoars is based on imaging evidence. Ultrasound is competent in diagnosing of the condition however CT-scan is more authentic in demonstrating bezoar characteristics and increasing the chance of identification of gastrointestinal bezoars. Endoscopy gives the definite diagnosis [2, 6, 7].

Either laparotomy or laparoscopy is the management strategy of choice according to the facility and experience. Fragmentation of a large foreign body by using monopolar coagulation current and modified needle-knife. This was found to be difficult in most of the case reports, because of the density, size and hardness of the bezoars [16, 18]. Endoscopy is not recognized as an effective therapeutic option as it needs frequent introduction of the endoscope leading to esophagitis, pressure ulceration and esophageal perforation [19].

CONCLUSION

Trichobezoar which is one of the complications of trichotillomania is a very rare disorder which may lead to surgical emergency. In cases of acute abdomen pain, laparotomy is necessary. Psychiatric consultation is mandatory to prevent recurrence.

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Author Contributions

Ayad Ahmad Mohammed – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Final approval of the version to be published
Sardar Hassan Arif – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published
Reber Haji Qadir – Analysis and interpretation of data, Drafting the article, Final approval of the version to be published
Abdulwahid M. Salih – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published
Fahmi Hussein Kakamad – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None

Consent Statement

Written informed consent was obtained from the patient for publication of this case report.

Conflict of Interest

Authors declare no conflict of interest.