ORIGINAL RESEARCH PAPER

Internal Medicine

TRICHOBEZOAR: A CASE REPORT FROM THE NORTHERN STATE, SUDAN

KEY WORDS: bezoar, trichobezoar, trichophagia, Sudan.

Mohamed Osman Abdelaziz

(MD) Associate Prof. of Internal Medicine, Faculty of Medicine & Health Sciences, University of Dongola, Sudan.

ABSTRACT

Bezoars are made of indigestible material like hair, vegetable or fruit fibers, milk curds or cotton. The commonest type is trichobezoar, which usually occurs in adolescent females. Trichobezoar is rare and most patients suffer from psychiatric disorders associated with trichotillomania. One case of trichobezoar was reported from Sudan. We present a 16 years old female blind due to congenital rubella who was diagnosed with a huge gastric trichobezoar removed by laparotomy. The patient had alopecia due to frequent pulling of scalp hair and trichophagia. The patient showed improvement after surgery and was recommended to be seen by a psychiatrist for further management.

Introduction

The Word Trichobezoar is composed of two words; trich from Greek meaning hair and bezoar from the Arabic word badzehr which means antidote [1]. Bezoar is a mass formed mainly in the stomach or any part of gastrointestinal tract by compaction of ingested material that does not pass through the gastrointestinal tract. Bezoars are made of any indigestible material like vegetable or fruit fibers, milk curds and cotton but the most common type is composed of hair or hair fibers and is called trichobezoars [2]. Most patients with trichobezoars suffer from psychiatric disorders including trichotillomania and trichophagia (eating of hair). Trichotillomania is defined as recurrent pulling out of one's hair resulting in noticeable hair loss, increasing sense of tension immediately preceding or when resisting hair pulling, and pleasure or relief when pulling out the hair [3]. Gastric trichobezoars form when hair strands, escaping peristaltic propulsion because of their slippery surface, are retained in the folds of the gastric mucosa [2]. As more hair accumulates, peristalsis causes it to be enmeshed into a ball. This hair ball gets too large to leave the stomach. The ball of hair becomes even more matted together and assumes the shape of the stomach, usually as a single solid mass. Most cases of trichobezoars are reported in females, which may be attributed to the traditional long hair in females. Peak incidence occurs during the second and third decades of life and it is rare in males. We present the first documented case of trichobezoar in the Northern State, Sudan.

Case Report

A 16 years old girl presented to the outpatient clinic of Dongola Teaching Hospital with a 6 months' history of recurrent epigastric pain and vomiting. She was blind since birth due to congenital rubella. She had a good appetite and there was no significant loss of weight. She experienced no other symptoms related to the gastrointestinal tract or other systems except for generalized fatigue, mild sleep disturbances and frequent pulling of her scalp hair since the age of 10 years. She was pale and showed mild epigastric tenderness and fullness on examination. Investigations revealed a hemoglobin level of 9gm/dl. Urinalysis, stool microscopy, renal function tests and abdominal ultrasound were all normal. The patient underwent upper gastrointestinal endoscopy, which revealed a huge intra-gastric mass, not attached to the wall, starting at the gastric fundus and extending beyond the pylorus with black and glistening surface most likely composed of hair strands (Figure 1). The patient underwent laparotomy and a big hair ball of about 638.6 gram of weight was removed from the stomach (Figures 2, 3). The patient passed through a smooth post-operative recovery period and discharged from the hospital and the presenting symptoms of epigastric pain and vomiting subsided. Referral to a psychiatrist was recommended for further assessment and management.

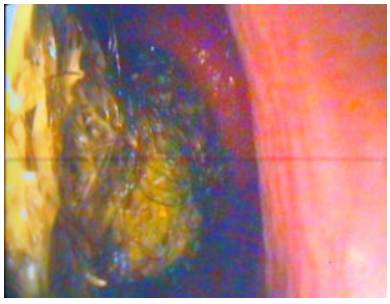

Figure 1: Upper gastrointestinal endoscopy of the 16 years old female patient from Dongola showing a big hair ball (trichobezoar) in the gastric lumen

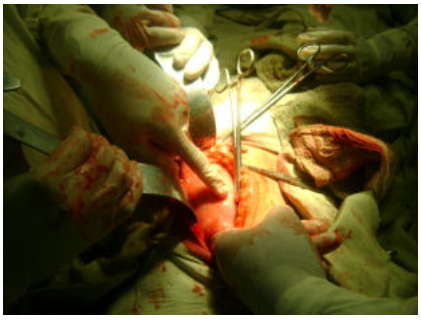

Figure 2: Laparotomy demonstrating a palpable mass inside the stomach of the patient just before starting gastrotomy to remove the hair ball

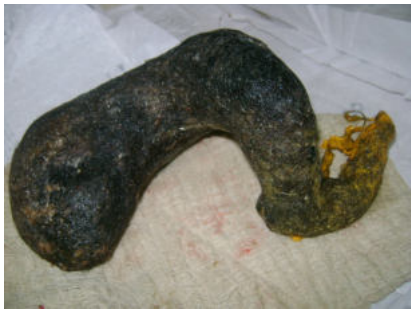

Figure 3: Trichobezoar after surgical removal from the patient's stomach

Discussion

Trichobezoar is rare. The first case of trichobezoar was described in 1779 [4]. Trichobezoars are usually black from denaturation of protein by acid, glistening from retained mucus, and foul smelling from degradation of food residue

trapped within the hair strands. The patient may be asymptomatic, but there is usually epigastric pain, vomiting and epigastric mass. Other clinical features include anemia, loss of weight, hematemesis and melena. Scalp examination reveals alopecia. Serious complications such as gastric outlet obstruction, perforation, bleeding and intestinal obstruction can develop. If untreated trichobezoars are associated with a mortality of about 30% due to serious complications [5]. Less than 500 cases of trichobezoar were reported in the literature and 80% of cases occur in patients younger than 30 years of age [6,7]. Gastric trichobezoar may extend through the pylorus to the duodenum, jejunum and ileum and can reach the large bowel as a long tail, a condition known as Rapunzel syndrome [7]. Diagnostic tests include endoscopy, computerized tomography (CT) scans, magnetic resonance images (MRI) and barium studies. Plain abdominal X-ray and ultrasound are of limited use. Most of the cases are treated by laparoscopy or exploratory laparotomy but endoscopic removal may have a role in small trichobezoars or after fragmentation of the hair ball [7].

Literature review revealed two studies from Sudan. The first study was a case report of gastric trichobezoar in a 17 years old female [8]. The second study was a report of an unusual case of bezoar in a 36 years old man in which the patient used to eat substances like asphalt stones, cloths and woody materials with retention of these materials in the colon [9].

Conclusion

A case of trichobezoar in an adolescent female patient with background psychiatric history is described in this report. Although trichobezoar is rare, it should be considered in the differential diagnosis of patients who present with unexplained gastrointestinal symptoms and a psychiatric assessment is recommended together with scalp examination to look for evidence of alopecia.

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Conflicts of Interest: None

Ethical Clearance: Informed consent was obtained from the patient and her father for the purpose of publication.

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