



A Bizzare Trichobezoar-Cause of Gastric Perforation in a 17Yr Old Male

KEYWORDS

Trichobezoar; Gastric Perforation; Non-Psychiatric Male

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ABSTRACT A bezoar is an accumulation of exogenous matter in the stomach or intestine. Trichobezoars is composed of patient's own hair and is rare in children. The condition is usually associated with mentally retarded children and may be caused by a variety of conditions, including anxiety, depression, and family stress. It also may be seen in normal-functioning adults. Here we describe a seventeen year old boy with huge gastric trichobezoar causing gastric outlet obstruction.

Introduction

A bezoar is an accumulation of exogenous matter in the stomach or intestine. Trichobezoars is composed of patient's own hair and is rare in children. Hair pulling, or trichotillomania, is the abnormal desire to pull out one's own hair. The condition is usually associated with the mentally retarded or with young children and may be caused by a variety of conditions, including anxiety, depression, and family stress. It also may be seen in normal-functioning adults. Here we describe a seventeen year old male with huge gastric trichobezoar causing gastric outlet obstruction.

Case Report

A seventeen year old Indian boy presented to our hospital with history of abdominal pain, and fullness for two months, associated with occasional non bilious, non bloody vomiting. These symptoms are associated with a decrease of appetite. The boy had no history of diarrhea, night sweat, cough, urinary symptoms, and allergy or drug ingestion. He does not give any history of eating hair in the past. His mother also does not give any such history. The boy is a mason by occupation.

On physical examination, his weight and height are normal for age. Vital signs were normal. He was pale but not jaundiced, with no evidence of scanty hair or alopecia (Figure 1). The abdomen was soft, with large non tender, non compressible and non mobile firm mass in the epigastrium extending to right hypochondrium. The mass has smooth surface, rounded borders with no bruit. Liver is 1cm below

right costal margin and no splenomegaly. Other systemic examination was unremarkable.

Laboratory tests were notable for mild microcytic hypochromic anemia with a hemoglobin concentration of 10.5 gm/dL (normal range, 11.5-14 gm/dl), Leukocyte count 11.0/cumm, Platelet count $760 \times 10^9/L$ (normal range, 150-450 $10^9/L$) and normal coagulation profile. Serum iron level is 2 umol/L (normal range 14-23 umol/L) and serum iron binding capacity is (90 umol/L) (normal range 20-70 umol/L). Other blood tests including urea, electrolytes and liver function tests were normal. Plain abdominal X-ray demonstrated a soft tissue mass occupying central upper abdomen with extension to the right side with no evidence of calcification. Ultrasound of Abdomen showed

a well defined hyper echoic mass with acoustic shadow in the epigastric region. Barium meal study revealed a highly distended stomach with a large filling defect with some contrast penetration through it (Figure 2). Imaging studies are consistent with diagnosis of bezoar. (figure 3)

Since the bezoar has a very large size, the patient underwent surgery (figure 4). A hard, hairy, mass, mixed with food particles, measuring 30x15 cm was removed in one piece (figure 5), with uneventful post-operative course. He was prescribed Iron supplements and assessed by a psychologist to rule out trichotillomania and trichotillophagia.

Discussion

A bezoar is an accumulation of exogenous matter in the stomach or intestine. Hair pulling may be caused by a variety of condition, including anxiety, depression, and family stress. But here, the boy or his mother did not give any such history in the past or present. The affected often receives much attention for hair pulling, which in turn strengthens the urge to engage in the act. In some, hair pulling can become a very strong, compulsive habit.

Most bezoars have been found in females with underlying personality problems or in neurologically impaired individuals. The peak age of onset of symptoms is the second decade of life. Bezoars are classified on the basis of their composition. Trichobezoars are composed of the patient's own hair, and phytobezoar are composed of a combination of plant and animal material [1,2]. Lactobezoars were previously found most often in premature infants and may be attributed to the high casein or calcium content of some premature formulas [1-3].

The genesis of bezoars may follow impaired gastric emptying as in post gastric vagotomy, antral resection, gastroparesis of any reason, or gastric outlet obstruction [4,5]. Poor mastication and the ingestion of large quantities of indigestible solids may precipitate bezoar formation [5].

Trichobezoars can become large and form cast of the stomach. They may enter into the proximal duodenum as occurred in our case, to present with symptoms of gastric outlet or partial intestinal obstruction including vomiting, anorexia, and weight loss [1,2]. Patients may complain of abdominal pain, distension, and severe halitosis.

Patients may occasionally have iron deficiency anemia, hypoproteinemia or steatorrhea caused by an associated chronic gastritis, protein losing enteropathy and pancreatitis. Physical examination may demonstrate patchy baldness and a firm mass in the right upper quadrant. Only two cases of gastric trichobezoar in children have been reported from Saudi Arabia [6-8], possibly because of the under-recognition of this clinical entity. Therefore symptoms could develop for several months or years before reaching a diagnosis.

An abdominal plain film may suggest the presence of a bezoar

which can be confirmed by barium or ultrasound examination. Unlike phytobezoar, which is generally impervious to barium, trichobezoars tend to absorb barium, adding in the radiological diagnosis [1,2]. Endoscopy provides a diagnosis and a possible mean of therapeutic disruption and removal of material [8].

The treatment of bezoars should be tailored to their composition. Lactobezoars usually resolve when feeding is withheld for 24-48 hours [1,2]. Trichobezoars are resistant to enzymatic dissolution, and must be removed endoscopically or surgically [8]. Operative removal is usually indicated for large trichobezoar [9]. Gastrosopic removal carries some risks such as perforation or intestinal obstruction. After a bezoar is removed, a plan should be developed to prevent recurrence by modifying if possible any obstruction, correction of dietary routine, or addition of prokinetic agents.

Psychological assessment and support is very important in the evaluation of a patient with bezoar. Therapy of hair pulling includes behavior modification and family or individual counseling. Until the underlying causes for the condition are cleared up, the only solution is to keep the hair too short for pulling.

In conclusion, a diagnosis of gastric bezoar should be suspected in a healthy young male can be made only with high index of suspicion and with symptoms of loss of appetite and vomiting, and surgical removal is usually indicated for large trichobezoar.

Acknowledgements

The authors thank the department of general surgery, JSS Hospital and the entire team in the operation theater.



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE4



FIGURE 5

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