Case Report

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Trichobezoar: a rare clinical rendezvous with twin sisters

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ABSTRACT

Trichobezoar is very uncommon in the pediatric age group. Till now no familial predisposition has been reported. We hereby report our clinical experience with eight years old twin sisters one of whom had a huge gastric trichobezoar and other one had a history of trichotillomania with recurrent vomiting and weight loss. An eight years old female child, one of the twin, presented with history of recurrent vomiting. Abdominal examination revealed firm mass in epigastric region. X-ray abdomen showed the transverse colon pushed down. Ultrasonography revealed echogenic mass in the stomach. Preoperative diagnosis of trichobezoar was achieved by a computed tomography (CT) scan. Laparotomy was done through the midline abdominal incision after initial session of resuscitation. A huge mass of hair was retrieved from the stomach part of which was passing into the duodenum. Patient was found to have underlying trichotillomania and obsessive compulsive disorder. As the patient was one of the twins, other sibling was called and evaluated for the mental health. Interestingly, she was found to have trichotillomania and trichophagia. Examination revealed sparse scalp hair. X-ray and the sonography of the abdomen were normal. Patient was advised endoscopic examination which the guardian of the patient refused. Patient was put on outpatient department (OPD) follow up after psychiatric counselling. Trichobezoar should be suspected in a pediatric patient of gastrointestinal symptoms, epigastric mass and anemia with history of trichophagia. Open surgery gives optimum results. Sibling of an affected twin must be evaluated on the similar lines and managed accordingly.

Keywords: Trichobezoar, Trichotllomania, Laparotomy

INTRODUCTION

Trichobezoar is a hard and compact mass of hair which may obstruct the human gut commonly stomach. ^{1,2} It is very uncommon in the pediatric age group and is usually associated with underlying psychiatric ailments. ³ Patients commonly present with the gastric outlet obstruction as the hair mass fails to negotiate the narrow pylorus. ⁴ Till now no familial predisposition has been reported. We hereby report our clinical experience with eight years old twin sisters one of whom had a huge gastric trichobezoar and other one had history of trichotillomania with recurrent vomiting and weight loss.

CASE REPORT

An eight years old female child, one of the twin, presented to our emergency department with history of recurrent vomiting. The vomiting was non-projectile and non-bilious. There was no history of fever, hematemesis, abdominal distension or rectal bleeding. On examination patient had weight loss (weight below 50th percentile), sparse hair and anxious looking facies. Vital signs were stable. Abdominal examination revealed firm mass in epigastric region extending into the right hypochondrium and umbilical region (Figure 1). Rectal examination was normal. Routine investigations were normal except for anemia (hemoglobin 10 mg/dl). X-ray abdomen showed

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the transverse colon pushed down (Figure 2). There was no other significant finding on the X-ray abdomen. Ultrasonography revealed echogenic mass in the stomach. Preoperative diagnosis was achieved by a computed tomography (CT) scan which revealed a huge trichobezoar in the stomach around 15×10 cm in size (Figure 3). Patient was resuscitated and planned for surgery, the next day. Laparotomy was done through the midline abdominal incision. Findings were revealed followed by transverse gastrotomy in the antrum of the stomach. A huge mass of hair was retrieved from the stomach (Figure 4) part of which was passing into the duodenum. Gastrotomy was closed back in two layers. A nasogastric (NG) feeding tube was left in stomach and removed on 1st postoperative day. On same day, patient was ambulated and water sips were started followed by first liquid orals and then soft diet by fourth postoperative day. Postoperative course was uneventful and the patient was discharged on fifth day of surgery. Before discharge patient was assessed by pediatric psychiatrist and was found to have underlying trichotillomania and obsessive compulsive disorder.



Figure 1: Mass in epigastrium extending into umbilical and right hypochondriac regions.

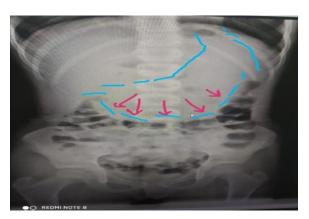


Figure 2: X-ray abdomen showing transverse colon pushed down.

As the patient was one of the twins, other sibling was called and evaluated for the mental health. Interestingly, she was found to have trichotillomania and trichophagia. There was also history of intermittent vomiting and weight loss. Examination revealed sparse scalp hair. X-ray and the

sonography of the abdomen were normal. Patient was advised endoscopic examination for further evaluation which the guardian of the patient refused. Patient was put on OPD follow up after psychiatric counselling. Both the sisters were doing well after follow up of 3 month.

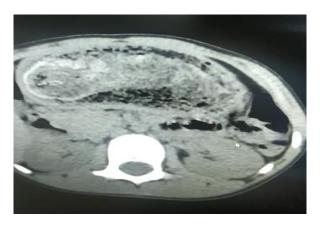


Figure 3: CT image showing stomach harbouring 15x10 cm heterogeneous material with gaseous and calcified foci forming a mass.



Figure 4: A huge mass of hair was retrieved from the stomach.

DISCUSSION

Trichobezoar is generally a problem of young females under the age of 30 years and is uncommon in the children.⁵ The most common location of the trichobezoar is stomach. History of trichotillomania is usually reported in one third of the cases.3 In our case history of trichotillomania was revealed only after the surgical findings were related to the parents. There was also sparse hair but no patches of alopecia. The common reason for the presentation, in the patients of trichobezoar, is nonbilious vomiting. The other presenting features may be palpable abdominal mass, abdominal pain, constipation and hematemesis. Weight loss is also observed in some patients. Our patient presented with the chief complaint of vomiting which was non-bilious and non-projectile and followed the meals. Examination revealed a firm mass in epigastric region extending into hypochondrium and umbilical regions. Our patient had also weight loss below

the 50th percentile for the respective age group. Blood investigations revealed anemia (Hb 10 mg/dl) which was microcytic hypochromic. Both iron deficiency and megaloblastic anemia may be present in the patients due to chronic malnutrition and malabsorption.⁷

In our patient the abdominal X-ray and sonography were the initial investigations. X-ray showed the transverse colon pushed down. There were no features of obstruction. Sonography revealed epigastric hypo-echoic rounded lesion with posterior acoustic shadowing. Plain X-ray films have a limited role in diagnosis of trichobezoar apart from confirming intestinal obstruction. Sonographic features too, are not pathognomic. An arc like surface echo casting a posterior acoustic shadow may be seen. CT scan may be necessary to attain preoperative diagnosis.8 CT scan clinched the diagnosis in our case too. CT scan unfolded a 15x10 cm heterogeneous mass like lesion with entrapped mottled gas and some calcific foci which was highly suggestive of gastric trichobezoar. CT is the best imaging modality currently available.8 Final and confirmatory diagnosis is achieved at the time of exploration.

Open surgery is the modality of choice for treatment of gastric trichobezoars with high success rates. Laparoscopic retrieval of the mass has been tried but success rates are less in huge masses like the one in our patient. Endoscopy is another minimally invasive modality but is effective usually in smaller trichobezoars. Recently combined endoscopic and laparoscopic technique has also been reported. As in our case the mass was very large, we opted for the open small midline laparotomy.

Postoperative course in our patient was smooth. Though there have been reports of gastric atony necessitating prolonged used NG tube, we removed the NG tube in next morning and started water sips on the 1st postoperative day. On the second postoperative day patient was put on liquid orals with steady increments till the patient was discharged on 5th postoperative day. There was no clinical evidence of gastric atony.

While in the hospital, patient was assessed by a pediatric psychiatrist and was found to suffer from obsessive compulsive disorder (trichotillomania). The association of trichobezoar with psychiatric conditions like mental retardation, childhood abuse, and bereavement is well established. Around 20% patients with trichotillomania will swallow the hair and among them 30% will form clinically significant trichobezoar. These patients need counselling for behavioral modifications. ¹²

Till now the familial predisposition for trichobezoar has not been observed. Our case is unique in this respect as the twin sister of the patient was also suffering from trichotillomania and trichophagia. She also reported intermittent vomiting and weight loss. Weight was below 50 percentile for the respective age group. X-ray and sonography were the normal. Patient was planned for

endoscopy which attending guardian refused. Endoscopy is recommended in a pediatric patient with long history of gastrointestinal symptoms and trichophagia. Since 30% of the patients of trichophagia eventually develop trichobezoar, the patient was put on regular long-term follow up. The operated patient was also put on long-term follow up as the relapses can occur. Psychiatric counseling and behavioral modification were instituted. Hair was cut short. Patient were reassessed after 3 months with significant improvement in weight and hair growth pattern.

CONCLUSION

Trichobezoar should be suspected in a pediatric patient of gastrointestinal symptoms, epigastric mass and anemia with history of trichophagia. Open surgery gives optimum results. Sibling of an affected twin must be evaluated on the similar lines and managed accordingly.

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