

Clinical Notes

An anemic patient who presented with abdominal pain due to trichobezoar

Sir,

We would like to report a case of bezoar that presented with generalized weakness and abdominal pain

A 9-year-old girl reported to the Hematology clinic with a history of generalized weakness and giddiness of 6-months duration. She also complained of epigastric pain off and on. There was nothing significant in the past medical history and drug history. Dietary history revealed low consumption of meat and fruits. She was markedly pallor and kailonychia was present on physical examination. Systemic examination including abdominal examination did not reveal any significant abnormality except hemic murmur. Laboratory investigation showed hemoglobin 7.5 g/dl, mean corpuscular volume 57 fl, mean corpuscular hemoglobin 19.5 pg, mean corpuscular hemoglobin concentration 35 g/dl and reticulocyte count 0.25%. Total leukocyte count was $5.2 \times 10^9/L$ with a differential count of neutrophils 55%, lymphocytes 38%. Monocytes 4%, eosinophils 3% and platelet count $438 \times 10^9/L$. Peripheral blood smear examination showed microcytic hypochromic red blood cells. Test for stool occult blood was negative. Hemoglobin electrophoresis did not reveal any abnormality. Blood chemistry revealed serum ferritin 1.5 ug/L (Reference value 15-300 ug/L), serum iron 7 umol (13-32 umol/L), and total iron binding capacity 75 umol/L (45-70 umol/L). Ultrasound abdomen revealed mass in the stomach. To confirm this barium contrast studies were carried out which revealed a large, mottled, intraluminal space-occupying lesion with a honeycombe appearance in the fundus of stomach (**Figure 1**). Delayed films taken 3-hours later showed multiple, small intraluminal filing defects in the duodenum. A radiological impression of gastrointestinal bezoar was made. On questioning she admitted later that she has been eating her hair for the last few years. Psychiatric evaluation of the girl and her parents revealed that parents were having no male issues. There were frequent domestic quarrels and she used to relieve her anxiety by eating her hair (Trichophagia). Keeping in view the large size of the bezoar and its extension to duodenum, laparotomy was carried out under general anesthesia and large hair mass was removed. Later the patient was discharged after psychiatric therapy. She was given oral iron for 6-months.

Pica is described as the persistent eating of non-nutritive substances for at least one-month. The name pica comes from the Latin word for "Magpie" a bird

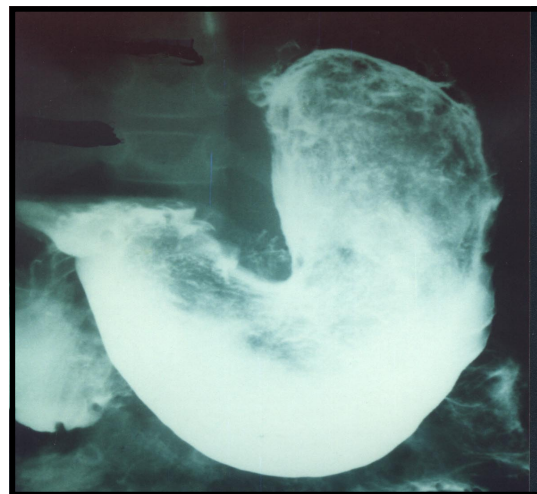


Figure 1 - Barium meal examination showing a large, mottled, intraluminal filling defect with honeycombe appearance in the fundus of stomach.

that is famous for eating anything and everything. Pica is estimated to occur in a 10-32% of children between one-6 years of age. In children older than 10-years reports of pica have indicated a rate of less than 10%. The onset of pica is usually between the ages of 12-24 months and in older children and adolescents with normal intelligence, the frequency of pica diminishes. Depending on the population, 0-68% pregnant women have pica. The presence of pica appears to affect both sexes equally.¹ The most frequent non nutritive substances involved in pica are dirty, clay, chalk, burnt match heads, plaster, hair, fruit seeds and number of other items that are not considered food.² Several theories have been proposed to explain the phenomenon of pica, but non has been universally accepted. Nutritional deficiencies have been postulated as a cause of pica. For example, cravings for dirt and ice are sometimes associated with iron and zinc deficiencies.³ In some, this may be the cause rather than the result of iron deficiency. A high incidence of parental neglect and deprivation has been associated with cases of pica.⁴ In certain regions of the world, pica is widely accepted as cultural rituals. The clinical manifestations can be benign or life-threatening depending on the objects ingested. It may cause dyspepsia, nausea, vomiting, colicky abdominal pain, and alteration of bowel habits, anorexia, weakness and weight loss. Among the most serious complications are lead poisoning usually from lead paints and intestinal obstruction from the ingestion of hairballs, stones or gravel.⁵ Distal extension of the bezoar can lead to obstructive jaundice, acute pancreatitis, protein losing enteropathy, steatorrhea,

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Table 1 - International classification of diseases - 10 criteria for pica of infancy and childhood.

There is persistent or recurrent eating of non-nutritive substances at least twice a week.

Duration of the disorder is at least one month

The child exhibits no other mental or behavioral disorder in the International classification of diseases-10 (ICD-10) classification

The child's chronological and mental age is at least 2-years

The eating behavior is not part of a culturally sanctioned practice

Adopted from: The ICD-10 Classification of Mental and Behavioral Disorders; Diagnostic Criteria for Research. World Health Organization, Geneva, 1993.

mechanical small bowel obstruction alone or with perforation. Rarely these bezoars are known to extend from the stomach to small intestine as a tail when they are termed as Rapunzel syndrome.⁶ No single laboratory test confirms or rules out a diagnosis of pica but serum iron and zinc level should always be carried out, which are usually low in pica.⁷ Hemoglobin levels are usually low in pica. Diagnosis of bezoars rests on clinical evidence and conventional radiological investigations such as plain abdominal film, contrast upper gastrointestinal series, ultrasonography or computerized abdominal tomography.⁸ Diagnostic criteria for pica are given

in **Table 1**. The first step in the treatment of pica is to determine the cause whenever possible. When pica is associated with situation of neglect or maltreatment, then efforts should be directed to psychotherapy. In some patients correcting an iron or zinc deficiency has resulted in the elimination of pica. Complication that develops secondarily to the pica must also be treated.

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