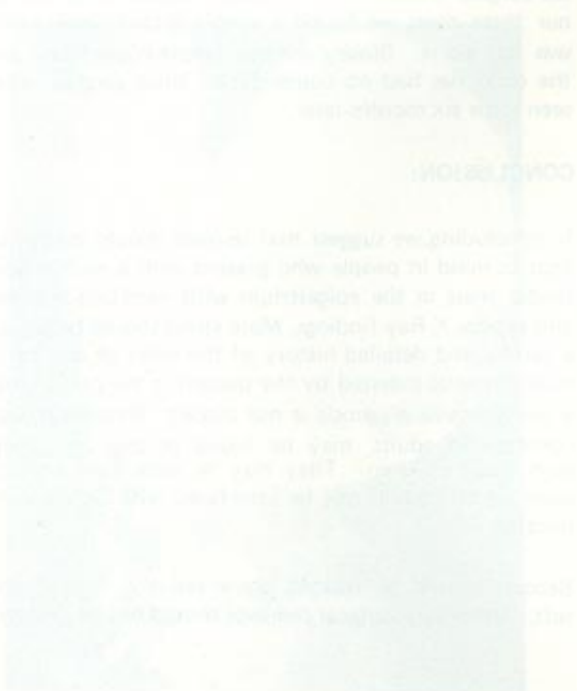


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postgastrectomy patients. Improper mastication of food in edentulous patients is another contributing factor and some surgeons routinely advise post gastrectomy patients to avoid citrus fruits. However, recently Liu et al⁴ reported 7 cases of ginger and drug bezoars in Chinese causing small Bowel obstruction without any previous Gastric surgery.

Complications which may arise from bezoars are pressure induced gastric ulcers which may bleed or perforate as any other peptic ulcer, intestinal obstruction (in postgastrectomy patients), and in children, vomiting, malnourishment, anaemia, and emaciation, is long standing cases. Bezoars have been mistaken for neoplasms and retrograde intussusception⁵.



Fig — III Barium Meal Showing a filling defect (phytobezoar) projecting into the lumen of the stomach.

Most of the Bezoars today are being treated conservatively by dissolving them with solutions or fragmenting them with the help of a gastroscope. Davis et al⁶ have been able to dissolve phytobezoars by certain enzymes through an endoscope. Others advocate the use of a solution containing Acetylcystine in normal saline 3-4 times a day followed by a good gastric lavage for 2 weeks. Pollard and Block⁷ have been able to dissolve Gastric phytobezoar by the enzyme cellulase and pepsin

given by mouth. But, it has been suggested that surgery should not be delayed in bezoars with imminent complications. We however advise that patients with large bezoars that can be felt by abdominal examination and found to be sufficiently hard should not be subjected to a conservative regimen, and, that it should be surgically removed. We have surgically removed all three bezoars without complications. Moreover, simple gastric ulcers left alone heal satisfactorily as confirmed by Walk⁹, who found good results in 13 such cases collected from the literature. In the presence, however, of complications such as haemorrhage perforation and stenosis, appropriate surgical treatment is ofcourse necessary. In one of our three cases, we found a simple gastric ulcer which was left alone. Biopsy showed simple hyperplasia, and the child has had no complication since surgery, when seen some six months later.

CONCLUSION:

In concluding, we suggest that bezoars should always be kept in mind in people who present with a mobile nontender mass in the epigastrium with vomiting anaemia and typical X-Ray findings. More stress should be laid on a careful and detailed history of the habit of any particular material ingested by the patient in the past, so that a preoperative diagnosis is not missed. Bezoars, though common in adults, may be found in any age group, even small children. They may be associated with an ulcer which should not be interfered with unless complicated.

Bezoars should be treated conservatively if small and soft. Otherwise surgical removal should not be delayed.

ACKNOWLEDGEMENT:

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CASE NO. 3

A 6 years old girl, presented with a mass in the epigastrium, ascites, edema, feet, marked anaemia, and vomiting. Plain X-Ray abdomen showed a dense rounded shadow in the stomach area. A Barium meal showed a big filling defect. Pre-operatively the patient was given blood transfusion. At laparotomy the stomach contained a big Trichobezoar made of hair and of pieces of cloth (rags) which extended into the duodenum. This was removed. No ulcer was found in this case. Her oedema vanished in two weeks and she was discharged home in excellent condition.

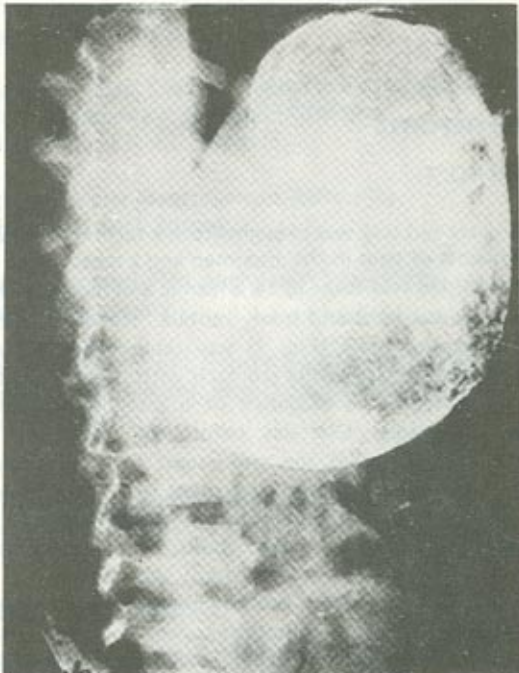


Fig - I Barium Meal X - Ray showing a large trichobezoar occupying and assuming the shape of the stomach.

DISCUSSION:

Bezoars are mainly of two types, trichobezoars and phytobezoars.

Trichobezoars are common in females in their second decade. The majority of them are associated with trichophagia¹. These females are usually mentally retarded and nervous. They pluck their hair and swallow it to get relief from pain.

Phytobezoars are commonly seen in men in their 6th decade¹ and the majority are the result of ingestion of

unripe persimmons. However, other food such as orange peels, cabbage, roots and stems of plants, seeds, leaves can become moulded and form a compact mass. They are firm when freshly removed, but later, on drying, crumble easily. They are usually foul smelling and dark brown or black in colour.

The possible explanation for the formation of these type of bezoars is the presence of a soluble chemical substance² present in the unripe persimmons which, under the influence of gastric juice, is transformed into a sticky coagulum, cementing into a ball which contains insoluble and indigestible pieces of skin, seeds, vegetable fibres etc. Other factors that cause food Bezoars are low gastric tone and poor digestion³.



Fig - II Large trichobezoar composed of hair only.

Debakey and Ochsner in 1938 in a review of the world literature on this subject were able to find 311 recorded cases, the commoner being Trichobezoar (58%). Since then, there have been many cases on record but majority occur between 2nd and 6th decade of life. We report our three cases in children under 10 years of age.

Bezoars may also form in the small intestine of post-gastrectomy patients¹⁰. In these patients, pepsin and acid are reduced and the triturating function of the antrum is lost. Moreover, large amount of cellulose in citrus fruits have also been blamed as a factor in

ORIGINAL ARTICLES

Bezoars in Children

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ABSTRACT:

Three consecutive cases of Bezoars (Two Trichobezoars and one Phytobezoar) in children of less than 10 years of age are reported in one year. They were all correctly diagnosed; mainly on history, clinical presentation, and radiological investigation. Gastroscopy facility was not available and therefore not done. These were all successfully treated surgically, although dissolution by certain solutions are suggested for smaller and softer ones.

Key words: Trichobezoars - Phytobezoars - Ulcer.

INTRODUCTION.

Bezoars are concretions of various foreign and intrinsic substances found in stomach and intestines of both, man and animals. The word Bezoar comes from a Persian word "PADZAHAR" meaning ANTIPOISON, because in ancient Persian civilization powders and tinctures made from them were used as antipoison, pesticides and promoters of wound healing, and at times for restoration of youth to the aged. Today they are no more than surgical curiosities lying in many pathology museums. The cases presented below demonstrate the importance of recognizing this condition in mobile masses of upper Gastro-Intestinal tract and also emphasise the similarity of their clinical picture with malignancies.

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CASE REPORTS

CASE NO. 1

A 9 years old boy was brought from a farflung area with complaints of pain in the abdomen and a mass in the epigastrium. He was found to be anaemic and malnourished. The mass was hard and freely mobile. He was admitted and a Barium meal (Fig. 1) was done which showed a radiolucent mass in the stomach with barium floating on its surface. A diagnosis of a possibly malignant mass was made. One day before the operation, the parents revealed that the child used to swallow hairs from wherever he would find them. This was noticed by other children playing with him in the village so the presumption that the mass could be a trichobezoar was kept in mind and a laparotomy was performed. At laparotomy a large mass was felt in the stomach, and on gastrotomy, a large Trichobezoar was found assuming the shape of the stomach (Fig. 2). The stomach also had an ulcer 1 x 1" in size on the greater curvature which we left alone. He had an uneventful recovery and was discharged on the 7th day.

CASE NO. 2

An 8 years old boy presented with a mass in the epigastrium and pain in the abdomen, anemia, vomiting and emaciation. The mass was mobile and non-tender. A Barium meal showed a filling defect in the stomach (Fig. 3). At laparotomy the stomach was opened and a large phytobezoar was seen lying in the fundal region adherent to the mucosal wall. It was removed. The parents gave a history of ingestion of large amounts of persimmons by the child. Seeds of persimmons were found inside the bezoars. No ulcer was found in this case. The patient had an uneventful recovery and was discharged.