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Gastric trichobezoar - a case report with review of literature

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ABSTRACT

Trichobezoar represents a mass of accumulated hair within the GIT. Since clinical presentation alone seems to be misleading, ranging from abdominal mass to vague gastrointestinal symptoms, it has to be diagnosed with imaging techniques or upper GI endoscopy that makes the treatment easier and possible. We present a case of 8 years old girl with abdominal mass complaining of nausea, vomiting and weight loss. There was a positive history of trichophagia. This case emphasizes the role of radiographic importance and complete clinical examination in the process of diagnosis of trichobezoar. Another significant factor to study the case is due to the rarity of the case below adolescence.

Key words: Trichobezoar, Gastric, Trichophagia.

1. INTRODUCTION

Trichobezoar is a concretion of accumulated hair, over the years, within the Gastro-Intestinal Tract that could extend to the duodenum or till small intestine (which is distinctively known as Rapunzel syndrome). This is commonly found among the adolescent girls with psychiatric disorder with trichotillomania and/or trichophagia i.e. pulling and eating of hair. The usual presentation is with loss of appetite and malnutrition. The diagnosis is suspected in adolescent malnourished girls with abdominal pain, epigastric mass, having a history of trichophagia. Radiological imaging is the best method of diagnosis and surgery is the treatment of choice. Interestingly the case that is being mentioned here has been of those not among the adolescent age group. The eight year old girl with severe abdominal pain, fever and

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Figure 1
Clinical picture of mass felt in epigastric and right hypochondrial region

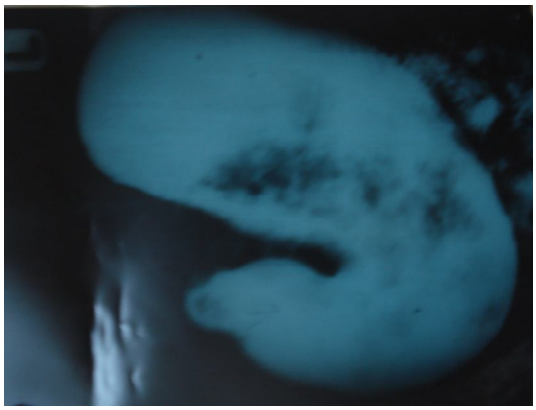

Figure 2
Abdominal radiograph with barium meal showed dilated stomach with multiple filling defects

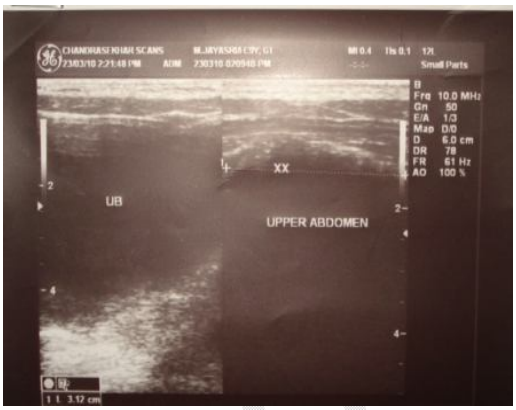

Figure 3
Ultrasound picture showing distal shadowing in upper abdomen and fecoliths in colon

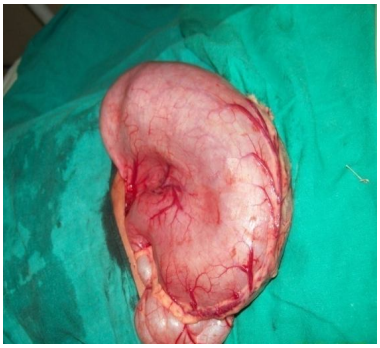

Figure 4
Intra operative picture of dilated and distended stomach

Figure 5
Trichobezoar with the shape of stomach and tail like extension

loss of appetite was detected with trichobezoar through imaging. This case emphasizes the role of radiographic importance and complete clinical examination of patient in the diagnosis of trichobezoar.

2. CASE REPORT

An eight year old girl presented to Paediatric Surgery OP in the year 2010 with complaints of pain and mass per abdomen, fever and loss of appetite since one week. Past history reveals trichophagia since 5 years of age and family history was nil significant. Bowel and bladder habits were normal. On general examination the patient was found to be pale with no signs of alopecia, jaundice or lymphadenopathy. Temperature, Pulse and Respiratory (TPR) rate are Normal. There were no other psychiatric problems. On clinical examination, mass was felt in epigastric and right hypochondrial region, firm in consistency as shown in (Figure 1).

Investigations revealed Hb-7.2gm percent, TC-6400cells/cumm, DC-P64 percent, L34 percent, E1 percent, M1 percent. Her blood sugar and liver function tests are within normal limits. Abdominal radiography with barium meal showed grossly dilated stomach with multiple filling defects (Figure 2). Ultrasonography showed a hyperechoic mass in the epigastrium with distal shadowing in upper abdomen and fecoliths in colon (Figure 3). Upper GI endoscopy revealed the nature of the mass as a large ball of hair and the scope did not enter the fundus of stomach. The diagnosis of trichobezoar was confirmed. Anterior longitudinal gastrotomy was done (Figure 4) and trichobezoar was removed, which was in the shape of stomach with tail like extension, a dark black hair mass, measuring 16x 6x 4 cms and weighing 480gms (Figure 5). Post operative period was uneventful. The case was followed for three years. There was no recurrence.

3. DISCUSSION

The term trichobezoar is derived from the Arabian word 'bezer' or to the Persian word 'pedzehr' both of which denote counter poison or antidote (De Bakey et al. 1939). Bezoars are classified according to their composition which may include hair (trichobezoar), vegetable matter like skin, seeds and fibre (phytobezoar), undigested milk (lactobezoar), red mud, stones (lithobezoar), (Lal et al. 1975). Out of all these trichobezoar is the commonest variety of bezoars. Trichobezoar is most common among adolescent girls and in females often associated with psychiatric problems is usually rare among children. Deba Bakey and Achnu looked at 172 cases of trichobezoar and found almost 90% cases in teenage females, half of the patients presented with trichophagia (De Bakey et al. 1939). It is not only associated with adolescent girls but also seen to occur in 4 years old girl (Begum Sharifun Nahar et al. 2010). Interestingly it is also found among boys in the similar age groups (Manish Jain et al 2011). The first case of

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trichobezoar was reported by Bendamomt in 1779 and first surgical removal was accomplished by Schouforn in 1883 (Carvajal Balaguera et al. 2008).

Trichobezoar; as the term implies consists of large quantities of hair of varying lengths firmly entangled when fully developed and forms a perfect cast of stomach and even duodenum (Figure 5). Mixed with the patients hair there may be various filamentous substances and other stringy material such as cotton, wool, thread, string bristle, vegetable fibres and animal hair. Usually the mass is dark greenish brown, or black with slimy surface and extremely vomit odour which is caused by fermentation, decomposition and putrefaction of various food and organic residues interspersed with the hair. Similar studies have shown that the use of ultrasound, CT scanning and endoscopy are vital in the diagnosis (Dindayal et al. 2008). Erect or supine abdominal radiographs show a prominent gastric outlet obstruction with an intra gastric mottled mass, outlined by gas in the distended stomach mimicking food filled stomach with small intra luminal filling defects with variable extension into duodenum, taking the form of comma (') sign (Figure 2). While concluding it is imperative to note that a treatment of trichobezoar is to be looked at from a holistic point of view by emphasising on radiological finding. Definitive treatment of trichobezoar is surgical removal and intensive psychiatric follow up for preventing relapse (Gockel et al. 2003). This case was followed for three years and no recurrence found.

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REFERENCES

1. Begum Sharifun Naher , Chowdhury Ali Kawser, RuhulAmin, SM Ishaq. a case report-Gastric Trichobezoar with outlet obstruction in a child of 4 years old. *Bangladesh J Child.* 2010, 34(1), 25-27
2. Carvajal Balaguera J, Martín García-Almenta M, Iborra Herrera J, Albeniz Aquiriano L, Camuñas Segovia J, Cerquella Hernandez C. Giant Gastric Trichobezoar In A Female Teenager. *The Internet Journal of Surgery*, 2008, 21(2)
3. DeBakey M, Ochsner A. Bezoars and concretions: A comprehensive review of the literature with analysis of 303 collected cases and a presentation of 8 additional cases. *Surgery*, 1939, 5, 132-60
4. Dindayal S, Bhuva NJ, Ramdass MJ, Narayansingh V. Trichobezoar presenting with the 'comma sign'in Rapunzel syndrome: a case report and literature review. Cases journal 2008, 286, doi:10.1186/1757-1626-1-286
5. Gockel I, Gaedertz C, Hain HJ, Winckelmann U, Albani MI, Lorenz D. The Rapunzel syndrome: rare manifestation of a trichobezoar of the upper gastrointestinal tract. *Chinurg* 2003, 74, 753–56
6. Lal MM, Dhall JC. Trichobezoar : A collective analysis of 39 cases from India with a case report. *Indian Pediatr.* 1975, 12, 351-53
7. Manish Jain, Sohan Lal Solanki. An Unusual Case Report of Rapunzel Syndrome Trichobezoar in a 3-Year-Old Boy. *Int J Trichology*. 2011, 3(2), 102–4

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