SPOT DIAGNOSIS (IMAGE GALLERY)



GASTRIC MASSES (TRICHOBEZOAR WITH RAPUNZEL SYNDROME) Charu Tiwari, Neha Sisodiya Shenoy, Mukta Waghmare, Kiran Khedkar, Hemanshi Shah

Department of Pediatric Surgery, Topiwala Nair Medical College and BYL Nair Hospital, Mumbai, Maharashtra, India

Address for Correspondence:

Prof Hemanshi Shah, Professor & Head, Department of Paediatric Surgery, TNMC & BYL Nair Hospital, Mumbai, Maharashtra - 400008. E-mail id: hemanshisshah@gmail.com

Case 1: A 10 year female child presented with abdominal pain, nausea and vomiting associated with abdominal lump and weight loss. A non-tender mobile mass was palpated in the epigastric region. Abdominal ultrasound (USG) showed an $8 \times 7 \times 6$ cm echogenic mass with posterior acoustic shadow. An upper gastrointestinal contrast study showed a mobile intraluminal filling defect in the stomach. The patient underwent mini-laparotomy with gastrotomy and removal of the mass.

Case 2: A 7 year old girl was admitted with an asymptomatic epigastric lump. A non-tender mobile mass could be palpated in epigastric region. USG showed a 12 x 8 x 6cm echogenic mass. CECT abdomen suggested a well distended stomach with mixed density lesion surrounded by oral contrast. Upper gastrointestinal endoscopy confirmed a large bezoar. The patient underwent laparotomy with gastrotomy and removal of bezoar. It had a tail like extension in the duodenum (Figure 1). Both patients were discharged after appropriate parental and psychiatric counselling.

What is the diagnosis?

Both patients had history of trichophagia and the second patient also had history of eating nails. The mass removed was trichobezoar. A trichobezoar is a conglomerate of trapped hair mainly originating in the stomach. (1,2) It is seen in young females. (1,2) The hair being enzyme-resistant and smooth, cannot be digested and accumulates between the gastric mucosal folds leading to formation of a hair ball together with entrapped food and mucus. (1,3) It is commonly associated with mental retardation and psychiatric disturbances like trichotillomania and trichophagia predominantly seen in emotionally disturbed or mentally retarded youngsters. (1,2,4) Predisposing risk factors include delayed gastric emptying, prior gastric surgery, peptic ulcer disease, chronic gastritis, Crohn's disease, carcinoma of the gastrointestinal tract, dehydration and hypothyroidism. (1,5,6)

Presentation can be asymptomatic or with dyspepsia, anorexia, nausea, vomiting, colicky abdominal pain, bowel disturbances and weight loss. (4) A palpable mobile mass in epigastric region may be present. (2) Complications include gastrointestinal bleeding (caused by ulceration in the gastric mucosa due to pressure necrosis induced by the bezoar), perforation, gastric emphysema, iron deficiency and megaloblastic anemia mandating early removal. (1,2,4) An unusual form of bezoar extending from stomach to the small intestine or beyond has been described as Rapunzel syndrome (2) which was seen in our second patient. USG, contrast study of the gastrointestinal tract, CECT scan and endoscopy help in diagnosis. (1)

Removal by endoscopic fragmentation is generally ineffective in large trichobezoars. (1) Specialized bezotomes and bezotriptors have been reported to fragment large and solid trichobezoars. Surgical excision can be done by laparotomy, mini-laparotomy or by laparoscopic techniques. (1,2,4) Successful pharmacotherapy for bezoars with cola, papain and cellulose and prokinetic agents like itopride, mosapride and metoclopramide has been reported. (1,2) Parental counseling, appropriate psychiatric treatment and long-term follow-up are mandatory to prevent recurrence.

REFERENCES:

- 1. Iwamuro M, Okada H, Matsueda K, Inaba T, Kusumoto C, Imagawa A et al. Review of the diagnosis and management of gastrointestinal bezoars. World J Gastrointest Endosc. 2015 Apr 16; 7(4): 336–345.
- 2. Czerwinska K, Bekiesinska-Figatowska M, Brzewski M, Gogolewski M, Wolski M. Trichobezoar, Rapunzel Syndrome, Tricho-Plaster Bezoar A Report of Three Cases. Pol J Radiol. 2015; 80: 241–246.
- 3. Gorter RR, Kneepkens CM, Mattens EC, Aronson DC, Heij HA. Management of trichobezoar: case report and literature review. Pediatr Surg Int. 2010;26:457–463.
- 4. Kaushik NK, Sharma YP, Negi A, Jaswal A. Images gastric trichobezoar. Indian J Radiol Imaging 1999;9:137-9.
- 5. Kumar GS, Amar V, Ramesh B, Abbey RK. Bizarre metal bezoar: a case report. Indian J Surg. 2013;75:356-358.
- 6. LaFountain J. Could your patient's bowel obstruction be a bezoar? Today's Surg Nurse. 1999;21:34-37

Funding: none

Conflict of Interest: none

DOI No.: 10.7199/ped.oncall.2017.39