



# MULTIPLE TRICHOBEZOAR (GASTRIC & ILEAL) PRESENTING AS INTESTINAL OBSTRUCTION: CASE STUDY OF TWO PATIENTS

Vineet Choudhary, Ravi Kumar Mathur, Sadhna Mathur, Brijesh Singh

NIMS Medical College & Hospital, Jaipur, Rajasthan, India

## ABSTRACT

**Aim:** We are presenting two rare cases of simultaneous occurrence of Gastric and Ileal trichobezoar presenting with intestinal obstruction.

**Case Report:** First case is 22 year old female with 6 months pregnancy complicated by intestinal obstruction due to multiple trichobezoars, Gastric and Ileal, which were removed successfully by exploratory laparotomy. Pregnancy and simultaneous occurrence of gastric and ileal trichobezoar presenting as intestinal obstruction makes this case rare and interesting. The second case is a 10 year old girl presenting with intestinal obstruction due to trichobezoars in both Gastric and Ileum. In this patient in view of the clinical history of trichophagia, trichotillomania, radiological imaging studies suggestive of intestinal obstruction due to trichobezoar; Exploratory laparotomy done which revealed simultaneous Gastric and Ileal trichobezoar which were successfully removed.

**Discussion:** Isolated Gastric trichobezoar, those with extension into the duodenum and small intestinal trichobezoars have been described in the literature however the presence of discrete gastric and intestinal trichobezoars are rarely presented.

**Conclusion:** These cases emphasize the importance of careful clinical history, role of radiological studies including USG, Barium contrast study, complete intraoperative evaluation of intestine at the time of dealing with a Gastric trichobezoar in diagnosis of trichobezoar.

**Key Words:** Trichophagia, Trichotillomania, Bezoar, Trichobezoar, Intestinal obstruction, Simultaneous

## INTRODUCTION

The Term Bezoar refers to a tightly packed mass of fruit, vegetable matter, hair or other material that formed in gastro intestinal tract. The term Bezoar derives from the Arabic word Badzehr which mean antidote. (1) Trichobezoar is a Greek word Trich which mean hair. (2) Trichobezoar consist of hair with other fiber and usually occur in young women (90%), including those with Psychiatric difficulty.

The incidence of small bowel obstruction due to bezoars including food boluses is 0.3-6%. (3) Trichobezoars are often associated with Trichophagia(hair swallowing). Trichotillomania may be unintentionally done and is part of the DSM IV psychiatric classification of impulse control disorders.(4,5) Trichobezoars most commonly occurs in adolescent females.(6) Acute intestinal ob-

struction during pregnancy has reported incidence of 1 in 1500.(7)

**CASE 1:** A 22yr old female with 6mths pregnancy was referred by Dept of Gynaecology with complaints of abdominal pain, vomiting off and on and constipation for last ten days. Abdominal pain was severe in nature, vomiting was bilious. On examination Patient was depressed and dehydrated. Vital signs were normal. Abdominal examination revealed distention, tender upper abdomen with sluggish bowel sounds. No organomegaly except uterus, which was palpable upto umbilicus. Fetal movements were felt by patient. Haematological investigations were normal. USG abdomen revealed 26 weeks live pregnancy, dilated fluid filled bowel loops with minimal interloop fluid. A trial of conservative management was given initially which failed. Patient developed absolute constipation with distention, visible loops of intestine

### Corresponding Author:

Vineet Choudhary, NIMS Medical College & Hospital, Jaipur, Rajasthan, India, E-mail:vineetms@yahoo.com

**Received:** 17.02.2014 **Revised:** 20.03.2014 **Accepted:** 21.04.2014

after 72 hrs of admission. Exploratory laparotomy done which revealed distended loops of the small intestine and a palpable mass in terminal ileum, 20 cms away from ileocaecal junction causing intestinal obstruction. Ileal mass was found to be Trichobezoar measuring 10x4x3 cm which was removed by enterotomy. On further exploration an intragastric mass was palpable, gastrotomy was performed and a huge trichobezoar measuring 20x11x-6cm was removed. It was occupied whole stomach. Post-operative period was uneventful. Patient was discharged on the 10th postoperative day.

**CASE 2:** A 10 yr old girl presented to the emergency surgery department with complaints of colicky abdominal pain and bilious vomiting. Patient's medical history was positive for trichophagia & trichotillomania. On physical examination patient's hairs were normal. Her abdomen showed epigastric fullness, slight guarding, abdominal distention. Bowel sounds were absent. Blood picture showed hypochromic microcytic anaemia (Hb 9gm%). Her Xray abdomen (erect) showed dilated bowel loops. Ultrasound abdomen showed dilated bowel loops with minimal free fluid and a mass adjacent to the left lobe of liver. No definite diagnosis was made regarding mass on ultrasound. Barium contrast study showed mottled intraluminal space occupying lesion with a honeycomb appearance in fundus of stomach suggestive of trichobezoar. In view of clinical features of intestinal obstruction and a provisional diagnosis of trichobezoar, decision made for exploratory laparotomy. On exploration stomach was found to be dilated, containing a large mass within gastric lumen. Mass was adherent with the thickened gastric wall all around. A gastrotomy was made over body of stomach and 14x7x6 cm trichobezoar was removed. One separate mass was palpable in the terminal ileum. It was measuring 6x4x3 cm. which was also removed by enterotomy. Postoperative period was uneventful.

## CASE DISCUSSION

Clinical manifestations of Trichobezoar are nonspecific abdominal pain, nausea, constipation but Trichobezoars can lead to serious complications like bowel obstruction, haemorrhage or perforation.(8,9) Although 1 in 2000 children suffer from Trichotillomania, only half of the patients give history of Trichophagia and just 1% of these individuals eat enough hair to accumulate Trichobezoar that require surgical intervention.(10)

Case 1: Small Bowel Bezoars are managed surgically if intestinal obstruction supervenes. At laparotomy attempts can be made to advance the bezoars into colon manually if these efforts are unsuccessful enterotomy and extraction are necessary. One must guard against not infrequent occurrence(4-17%) of multiple bezoars by examining the stomach and the entire small bowel at

laparotomy. Preoperative endoscopy have important in cases of small bowel obstruction as a result of bezoars in order to recognize unsuspected gastric or duodenal bezoar and extract or fragment these if possible, as they may be readily missed upon attempted palpation specially when there has been previous Gastric surgery.(11) In this Case preoperative endoscopy was not done as the patient was initially seen by Gynaecologist and excessive vomiting was confused and treated as Hyperemesis gravidarum. Abdominal Ultrasound revealed 26 weeks live pregnancy, dilated bowel loops. X Ray Abdomen and Barium contrast study were not done due to pregnancy. Exploratory laparotomy revealed Trichobezoar in the terminal ileum and on further exploration huge gastric trichobezoar was also detected. This emphasizes strongly that when dealing with intestinal Trichobezoar one should never forget to look for unsuspected Trichobezoar in the stomach, duodenum and the rest of Intestine. Bezoars as a cause of acute small intestinal obstruction were studied in another series of 12 patients. In 9 of them Bezoars were localized in ileum, 3 in jejunum. Necessity of surgical intervention in these patients is noted. Bezoars were removed with enterotomy in 10 patients, in 2 patients with fragmentation and transposition in caecum. No complications reported in this series. (12) The approach to intestinal obstruction is the same in pregnancy as in the general population except that decisions are more urgently required because both the fetus and intestine are at risk. Fetal exposure to radiation is a concern. Morbidity & Mortality from intestinal obstruction are related to the diagnostic delays. Mortality is <6% in most series with fetal mortality of 20-30%.(13) In this case diagnostic delay was because no radiological investigation(X Rays, CT Scan) were possible due to pregnancy and ultrasound abdomen findings were not supporting diagnosis of Trichobezoar. Furthermore No history of trichophagia & trichotillomania can be elicited in our patient even in postoperative period. In this patient laparotomy was delayed upto 4<sup>th</sup> hospital stay because the patient was managed conservatively initially in view of anaesthetic risk during pregnancy and her initial clinical presentation of subacute intestinal obstruction which later transformed to acute intestinal obstruction. Patient was also followed by Psychiatric evaluation.

CASE 2: This 10 years old young girl presented to Surgery OPD with clinical features of Intestinal obstruction. There was history of trichotillomania & trichophagia specially during her anxiety periods. In upto 10% of patients of trichotillomania trichophagia occur; one third of patients of trichophagia develop trichobezoar.(6) Preoperative upper GI Endoscopy was not done due to lack of consent. Ultrasound abdomen revealed dilated bowel loops, minimal free fluid and a mass in the abdomen near the left lobe of liver. No definite opinion made regarding mass. X Ray Abdomen(Erect) showed dilated bowel loops and multiple air fluid levels. Barium contrast

study showed mottled intraluminal space occupying lesion with a honeycomb appearance in fundus of stomach suggestive of trichobezoar. Ultrasound, the primary image modality for evaluation of upper abdominal mass in children, demonstrates a superficially located broad band of high amplitude echoes along an anterior wall of mass with sharp clean posterior acousting. Plain abdominal radiographs and barium meal study are helpful in confirming gastric trichobezoar and excluding calcified masses which are confusing in ultrasound abdomen. (14) In view of history of trichophagia, trichotillomania, radiological findings suggestive of acute intestinal obstruction due to Trichobezoar, Decision made for laparotomy. In this case operative findings were a huge trichobezoar and small trichobezoar in terminal ileum which were removed by gastrotomy and enterotomy respectively. Postoperative period was uneventful. Surgery should be reserved for acute complications of bezoars such as perforation, haemorrhage or obstruction. Surgery may become necessary for bezoars that resist medical dissolution and can not be removed or fragmented endoscopically. (15) In most cases, Trichobezoars are present only in stomach. 5% of Gastric Bezoars are multiple. 15% of Trichobezoars are intestinal. The term Rapunzel syndrome was given to Trichobezoar extending continuously through the entire length of small intestine as a tail and was described by Vaughn et al in 1968. (16) Small Bowel obstruction from trichobezoar is very uncommon because trichobezoars usually do not migrate into small bowel. The small Intestinal bezoars has been rarely reported. (17,18,19) Bezoars may be removed either laparoscopically or by open laparotomy. (20) Due to high success rate, relatively low complexity and ability to carefully examine the entire gastrointestinal tract for satellites in a short period of time, laparotomy is still considered the treatment of choice. Endoscopic fragmentation may be attempted, but often fails. (1)

## CONCLUSION

Possibility of Trichobezoar though uncommon, should always be kept in mind while dealing with intestinal obstruction in young female patients especially those with Psychiatric illness. One should be very careful in dealing with pregnancy complicated by intestinal obstruction due to Trichobezoar as both mother & foetus are at risk. Attempts should always be made to elicit history of trichophagia, trichotillomania by good communication skills with patient and relatives. Psychiatric evaluation and follow up is also necessary in these patients. Another emphasis is, that when dealing with intestinal Trichobezoar (planned surgery / incidental finding), one should never forget to look for gastric, duodenal or remaining intestinal trichobezoar as the simultaneous occurrence of trichobezoar though rare but has been reported. These

cases emphasize the importance of careful clinical history, role of radiological studies including USG, Barium contrast study, complete intraoperative evaluation of intestine at the time of dealing with Gastric trichobezoar in diagnosis of trichobezoar.

## ACKNOWLEDGEMENT

The authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors/editors/publishers of all those articles, journals and books from where the literature of this article has been reviewed and discussed. Authors are grateful to IJCRR editorial board members and IJCRR team of reviewers who have helped to bring quality to this manuscript.

## REFERENCES

1. A Samad, M. Ahmed, and Z latif, "Bezoars" a review of Two cases, "Journal of the college of Physicians and Surgeons, Pakistan, vol 7, no 6pp263-265, 1997.
2. M.E. Rabie, A.R. Arishi, A Khan, H. Ageely, G.A.S. El- Nasr, and M Faghl, "Rapunzel Syndrome: the unsuspected culprit" World Journal of Gastroenterology, vol 14, no7, pp1141-1143, 2008.
3. Safford S. Goldstein, James H. Lewis, Robin Rothstein, Intestinal obstruction due to bezoars, The American Journal of Gastroenterology, vol 79, No4, 1984:313-318.
4. American Psychiatric Association, Diagnostic and statistical manual of mental Disorders, American Psychiatric Association, Washington, DC, USA, 4th Edition, 2000.
5. G.A. Christenson and SJGow, "The characterization and treatment of Trichotillomania" Journal of clinical Psychiatry, vol 57, no8, pp42-49, 1996.
6. C. Bouwer and D.J. Stein, "Trichobezoars in Trichotillomania: case report and literature review" Psychosomatic Medicine, vol 60, no5, pp658-660, 1998.
7. Andrus CH, Ponsky JL. Bezoars: Classification, Pathophysiology, and treatment. American J. Gastroenterol. 1988;83:476-478.
8. Krausz MM, Moriel EZ, Ayalon A, Pode D, Durst AL. Surgical aspects of gastrointestinal persimmon phytobezoar treatment Am J Surg. 1986 Nov;152(5):526-30.
9. Escamilla C, Robles-Campos R, Parrilla-Parcio, Lujan-Mompean J, Liron-Ruiz R, Torralba-Martinez JA. Intestinal obstruction and bezoars JA. Intestinal obstruction and bezoars J. Am. Coll Surg 1994;179:285-288.
10. Yao cc, Wong HH. Chen CC. Wang cc, Yang cc. Lincs. Laparoscopic removal of large Gastric Phytobezoar Surg. Laparosc Endosc percutan technique 2000;10:243-45.
11. Michael N. Margolies, Foreign Bodies and Bezoars, Oxford Text Book of Surgery 2000 vol 2:1339-1341.
12. Kurguzov, Bezoars as a cause of Acute Small Intestinal Obstruction. Khirurgiia (Mosk) 2004(12)18-21 ISSN:0023-1207.

13. Mitchell S Cappel, David, Friedel Abdominal pain during Pregnancy. Gastroenterology Clinics of North America. March 2003:22-23.
14. Narindr K Kaushik, Yash P Sharma, Asha Neg, A Jaswal, Indian Journal of Radoiology & Imaging 1999/vol 9/issue3/pno137-139.
15. Robert S Sander, Andresa Todisco, Gastric Bezoars, Text Book of Gastroenterology, 1999,vol1:1551-1552.
16. Vaughan ED, Sawyers JL, Scott HW. The Rapunzel Syndrome. An unusual complication of intestinal bezoar.SURGERY.1968;63:339-343.
17. Malhotra A, Jones L,Drugas G. Simultaneous gastric and small intestinal Trichobezoar. Pediatric Emergency care 12/2008, 24(11)774-776.
18. Hoover R, Piotrowski J, St Pierre K, Katz A, Goistein AM. Simultaneous gastric and small intestinal Trichobezoars-a hairy problem.J Pediatric Surgery.2006,41(8)1495-1497.
19. Kovacs V, Bruncak P, Cseri J, Malatnec J Simultaneous bezoars in the stomach, ileum and caecum causing illeus in a 30 year old imbecile.case report Rozhi Chir 2002;81:248-251.
20. Palanivelu C, Rangrajan M, Senthil Kumar R, Madan Kumar MV. Trichobezoars in the stomach and ileum and their laparoscopy assisted removal.a bizarre case. Singapor Med J 2007Feb;48(2):e37-9.
21. M.R. Phillips, S. Zaheer and G.T. Druges, "Gastric Trichobezoar: "Case report and literature review" Mayo clinic proceedings, vol 73, no7, pp653-656,1998 GASTRIC & ILEAL TRICHOBEZOAR.

