



ISSN:0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 10, pp. 20490-20492, October, 2017

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

A RARE CASE OF INTESTINE OBSTRUCTION IN THE EDENTULOUS

Jayakrishna Reddy A., Shreya Rajkumar., Senthil Kumar S., Darwin P and Rajkumar J.S

Sree Balaji Medical College & Hospital, Chennai -44

DOI: <http://dx.doi.org/10.24327/ijrsr.2017.0810.0902>

ARTICLE INFO

Article History:

Received 16th July, 2017
Received in revised form 25th
August, 2017
Accepted 23rd September, 2017
Published online 28th October, 2017

ABSTRACT

Phytobezoar is defined as a concretion composed of vegetable matter like skins, seeds and fibres of fruit and vegetables. Phytobezoar has noted to cause small bowel obstruction, but it is a rare cause(1). It accounts for about 0.4% to 4% of all small bowel obstructions. The symptoms include vomiting, constipation, abdominal distension and pain as in any small bowel obstruction. Terminal ileum is the most common site of obstruction.(1),(2). Surgery is the main line of management in small bowel obstruction due to phytobezoar. They can be prevented by usage of prokinetics and by avoiding a high fibre diet. Here we present a 70 year old edentulous lady who came with features of intestinal obstruction. Laparotomy revealed the cause of obstruction to be plant phytobezoar.

Copyright © Jayakrishna Reddy A et al, 2017, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Phytobezoar is a concretion composed of vegetable matter like skins, seeds and fibres of fruit and vegetables.

Bezoars are normally found in the stomach, they may pass into the small bowel. Phytobezoar can also develop secondary to Crohn's disease, tumor, tuberculosis or previous surgery with stricture or small bowel diverticular disease, poor mastication and edentulous jaws, rapid swallowing of large amounts fruits and vegetables.(3),(2),(4) In such cases, the bile constituents or calcium salts contribute to bezoar development.

Case report

Here we present an interesting case of a 70 year old female who came with features of intestinal obstruction.

She presented with complaints of colicky abdominal pain associated with bilious vomiting for 2 days and was obstipated for 4 days. She had similar complaints 3 months ago. Previous CECT abdomen showed mild distension of ileum and multiple mesenteric lymph nodes at the distal ileum and ileocecal junction. She underwent an inconclusive diagnostic laparoscopy and node biopsy. Histopathology of node biopsy was suggestive of nonspecific inflammation

She is a known case of type 2 diabetes mellitus, hypertension, and hypothyroidism on regular treatment. On examination, she was hemodynamically stable. However, her abdomen was distended without any visible peristalsis and nil signs of

peritonitis. Bowel sounds were hyperactive. Rectal examination was normal. CECT abdomen (figure 1) showed small bowel obstruction involving the ileal loop showing small bowel faeces sign with abrupt zone of transition at the junction of mid and distal ileal loops. Minimal free fluid was found in the pelvis there was no evidence of gall stones.

Axial view(a, b) of computed tomography (CT) of the abdomen showing grossly dilated, thick-walled small bowel loops up to the region of the pelvis.

Coronal view(c) of the computed tomography (CT) of the abdomen showing grossly dilated thickened small bowel loops up to the region of right iliac fossa.

She was taken up for diagnostic laparoscopy(5) and was found to have multiple mesenteric nodes, multiple dilated bowel loops with collapsed distal ileum, impacted food bolus (bezoar) noted in ileum around 120-150 cm from ileocecal junction, with moderate ascites. Impacted bezoar was not able to be milked towards the caecum. Following which a transverse incision was made at the level of umbilicus, thorough bowel walk was done, and the site of impacted bezoar was identified. The site of obstruction was opened longitudinally and decompression of the entire small bowel along with the bezoar done. Strictured small bowel resected (15-20 cm) and end to end anastomosis done, mesenteric nodes biopsy taken.

*Corresponding author: **Jayakrishna Reddy A**
Sree Balaji Medical College & Hospital, Chennai -44

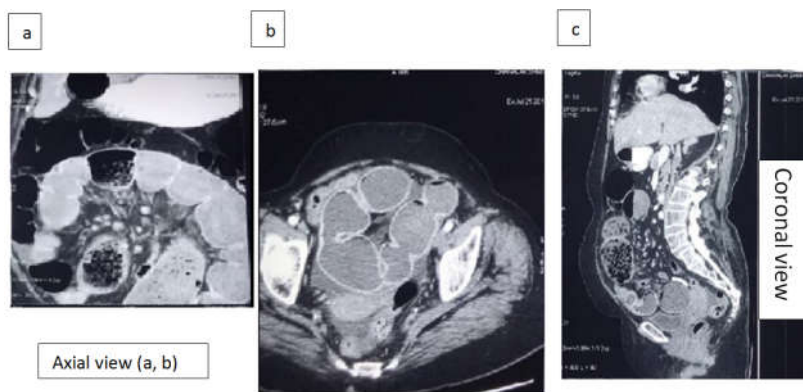
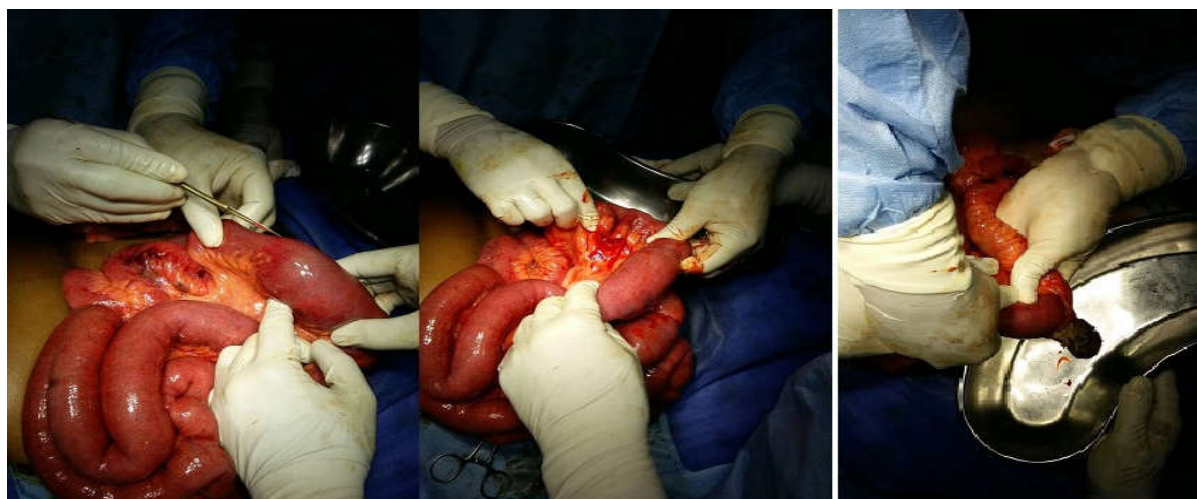


Figure 1 CECT Abdomen



Histopathology reports suggested of vegetable matter with distal hypertrophic constriction ring in the bowel wall. Lymph node showed non-specific inflammation.

DISCUSSION

The word 'bezoar' is derived from the Persian word 'padzahr' which means counter-poison or antidote(4). This word was first applied to a greenish, hard concretion found in the fourth stomach of the Syrian goat. The stone was felt to prevent poisoning and came to Europe as the bezoar-stone which was highly prized for its medicinal properties.

There are 4 types of bezoars. Phytobezoars are the most common, and are composed of vegetable matter and it contains large amount of non-digestible fibres. Trichobezoars are gastric concretion of hair fibres which usually presents in psychiatric patients. Pharmacobezoars consist of medication bezoars. Lactobezoars are milk curd secondary to infant formula usually seen in low birth weight neonates.(1)

Small bowel obstruction accounts for 20% of hospital admission. Common causes are adhesions, strangulated hernia, malignancy, volvulus, gallstones, foreign bodies, inflammatory bowel disease, hypothyroidism and diabeticgastro paresis (2),(1),(6). Phytobezoars are rare, accounting for only 0.4-4% of all intestinal obstruction. No particular age has been observed, but this is slightly more common in males.

Primary small bowel bezoars are very rare and invariably causes obstruction of small bowel. Clinical presentation of phytobezoar induced small bowel obstruction is similar to obstruction due to other causes, such as pain abdomen, distension of abdomen, nausea, vomiting and constipation. Hence, it is difficult to differentiate between small bowel obstruction due to phytobezoar and adhesions, particularly in patients who have previous history of abdominal surgery.(7),(1),(4)Our working diagnosis was intestinal obstruction due to faecal matter or vegetable matter impaction.

Plain supine x-ray shows a classic obstructive pattern of small bowel occasionally outline of bezoar can be made out, which is difficult to differentiate between abscess and faeces within the ileum.

The diagnostic rate of abdominal ultrasound in detecting phytobezoar is reported to be 88%-93%.But it is operator dependent and bezoar can be concealed by bowel gas. In this patient both investigations showed features suggestive of small bowel obstruction. The cause of obstruction can be diagnosed by computed tomography in 73%-95% of patients and its diagnostic accuracy for bezoar induced small bowel obstruction is about 65%-100%.(8),(1) It is an operator dependent investigation that confirms the level of obstruction, existence of multiple bezoars as well as any complications such as bowel ischemia and perforation. Well defined intra-luminal mass with mottled gas appearance associated with encapsulated wall is suggestive of phytobezoar.

The treatment of choice of small bowel obstruction due to phytobezoar is surgery. Most bezoars in small bowel are found 50cm-70cm proximal to ileocecal valve because it is narrow, slow intestinal motility and large amount of water absorption hardens the bezoar resulting in losing its motility.(1),(9) Surgical options reported are manual fragmentation of phytobezoar and pushing it towards caecum. If it is not possible enterotomy should be done to remove the bezoar.(9) Segmental bowel resection and anastomosis may be required in presence of complications such as gangrene of bowel and stricture. At the time of laparotomy thorough exploration of the abdominal cavity should be done to exclude the presence of concomitant gastric bezoar or intestinal bezoars.(2)About 1/3rd of the patients have multiple intestinal bezoars. Laparoscopic management of phytobezoar induced small bowel obstruction have been reported however it requires expertise.(5)In most cases, surgical treatment of small bowel obstruction can be accomplished successfully. General preventive measures include avoidance of high fibre diet, more water consumption, proper mastication, and treatment of underlying gastrointestinal motility disorders.(7),(4)

CONCLUSION

Small bowel phytobezoar is an uncommon cause of acute intestinal obstruction in the elderly with a virgin abdomen. Preoperative aetiologic diagnosis based on history and physical examination may be difficult. It is common in old and edentulous people with large amount fruits and vegetables in diet.(7)Plain abdominal X-ray and ultrasound findings are that of nonspecific small bowel obstruction. Abdominal CT scan is helpful in excluding other differential diagnoses.(8) Surgery is often required in resolving the diagnostic puzzle and for definitive treatment. Recurrence following treatment is common and can be prevented by appropriate dietary habits and control of underlying factors.(1)

References

1. Balogun OS, Osinowo AO, Afolayan MO, Adesanya AA. An Obstructing Small Bowel Phytobezoar in an Elderly Female Nigerian: A Case Report and Literature Review. *Case Rep Surg* [Internet]. Hindawi; 2017 [cited 2017 Sep 27];2017:6962876. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28740743>
2. Razavianzadeh N, Foroutan B, Honarvar F, Forozeshfard M. Small bowel obstruction attributable to phytobezoar. *Oxford Med case reports* [Internet]. Oxford University Press; 2016 Dec [cited 2017 Sep 27];2016(12):omw092. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28031856>
3. Ripollés T, García-Aguayo J, Martínez M-J, Gil P. Gastrointestinal Bezoars. *Am J Roentgenol* [Internet]. 2001 Jul [cited 2017 Sep 28];177(1):65-9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/11418400>
4. Kement M, Ozlem N, Colak E, Kesmer S, Gezen C, Vural S. Synergistic effect of multiple predisposing risk factors on the development of bezoars. *World J Gastroenterol* [Internet]. Baishideng Publishing Group Inc; 2012 Mar 7 [cited 2017 Sep 28];18(9):960-4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22408356>
5. Samdani T, Singhal T, Balakrishnan S, Hussain A, Grandy-Smith S, El-Hasani S. An apricot story: view through a keyhole. *World J Emerg Surg* [Internet]. BioMed Central; 2007 Aug 15 [cited 2017 Sep 29];2:20. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/17697369>
6. Escamilla C, Robles-Campos R, Parrilla-Paricio P, Lujan-Mompean J, Liron-Ruiz R, Torralba-Martinez JA. Intestinal obstruction and bezoars. *J Am Coll Surg* [Internet]. 1994 Sep [cited 2017 Sep 28];179(3):285-8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/8069423>
7. Hayes PG, Rotstein OD. Gastrointestinal phytobezoars: presentation and management. *Can J Surg* [Internet]. 1986 Nov [cited 2017 Sep 28];29(6):419-20. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/3779544>
8. Maglinte DD, Reyes BL, Harmon BH, Kelvin FM, Turner WW, Hage JE, et al. Reliability and role of plain film radiography and CT in the diagnosis of small-bowel obstruction. *Am J Roentgenol* [Internet]. 1996 Dec [cited 2017 Sep 29];167(6):1451-5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/8956576>
9. Erzurumlu K, Malazgirt Z, Bektas A, Dervisoglu A, Polat C, Senyurek G, et al. Gastrointestinal bezoars: a retrospective analysis of 34 cases. *World J Gastroenterol* [Internet]. Baishideng Publishing Group Inc; 2005 Mar 28 [cited 2017 Sep 28];11(12):1813-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15793871>

How to cite this article:

Jayakrishna Reddy A et al. 2017, A Rare Case of Intestine Obstruction In An Edentulous. *Int J Recent Sci Res.* 8(10), pp. 20490-20492. DOI: <http://dx.doi.org/10.24327/ijrsr.2017.0810.0902>
