

Recurrent primary sigmoid colon obstruction due to phytobezoar in previously healthy adult

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Section: Abdominal imaging

Case Type: Clinical Cases

Authors: Mornjakovic A, Catic Dz.

Patient: 30 years, male

Clinical History:

A patient presented with abdominal pain and obstipation in the past five days.

Imaging Findings:

The patient was admitted to the Department of Abdominal Surgery complaining of a crampy left side abdominal pain and opstipation that started five days ago. On physical examination a markedly distended abdomen with generalized tenderness was detected. Rectal examination revealed an empty rectum. His personal history revealed a hospitalization because of acute intestinal obstruction four years ago. Only plain abdominal film at that time was done without determination of the exact site and cause of obstruction. Emergency laparotomy was performed showing sigmoid colon obstruction due to phytobezoar. After the surgery he was advised by the dietitian to avoid the food identified to lead to ppytobezoar formation. The recovery was complete. Following his previous history and current similar clinical feature, barium enema and abdominal CT were performed. Imaging findings of a huge intraluminal mass in the region of the sigmoid colon were strongly suggestive for phytobezoar again. On CT, similar masses elsewhere within the gastrointestinal tract were not detected. The obstruction was relieved by conservative endoscopic treatment including the use of colonic washouts. It was followed by passage of a large stool containing numerous undigested fruits and vegetable fibers.

Discussion:

Phytobezoar is a rare cause of mechanical intestinal obstruction. They generally occur in the stomach, less commonly in the small intestine and particularly in the colon. The phytobezoar is a compact mass of fibers, seeds, leaves, roots or stems of plants that collects in the stomach or intestine. Patients who have undergone surgical procedures for peptic ulcer disease or who for other reasons, such as diabetic gastrointestinal paresis, have a loss of normal pyloric function and decreased gastric acidity are prone to form phytobezoars formation. It is especially common in people without teeth who cannot chew food thoroughly. Phytobezoars have been reported in diabetics with autonomic neuropathy, in patients with myotonic dystrophy and in patients with delayed emptying of the stomach secondary to gastric carcinoma. Phytobezoars are rarely found in the intact, normal stomach, except in persons who eat persimmons frequently, have delayed gastric emptying secondary to anticholinergic therapy or have hypoacidity secondary to cimetidine therapy. In this case, phytobezoar obstruction of the same intestinal localization was developed two times emphasizing the question why? Why in this healthy man without history of gastrointestinal disorders as well as some other known diseases or eating of excessive amount of fruit or seeds before and after the onset of symptoms? Why in the same region of the sigmoid colon? The fact that this patient had a recurrent obstruction constitutes a pathophysiologic dilemma and reinforces the concept that any vegetable matter can form phytobezoars if taken in sufficient quantity and if not prepared or cooked properly. This case is highlighting

the point that an intact gastrointestinal tract does not exclude phytobezoars as a cause of obstruction.

Differential Diagnosis List: Recurrent primary sigmoid colon phytobezoar.

Final Diagnosis: Recurrent primary sigmoid colon phytobezoar.

References:

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Figure 1

a



Description: 1a: X-Ray, conventional

Frontal mono-contrast barium enema radiograph shows markedly distended sigmoid colon with large endoluminal mass consisting of the numerous filling defects and entrapped air. **Origin:**

b



Description: 1b: X-Ray, conventional

The oblique position shows almost the same pattern of sigmoid colon phytobezoar. Recognize the transition zone (large arrow) from the dilated sigmoid colon to empty rectum (small arrow). **Origin:**

Figure 2

a



Description: 2a: CT, spiral

Axial CT image through the sigmoid colon demonstrates an intrasigmoid bezoar consisting of numerous fibers, air and barium (barium enema two days previously). The transition zone between dilated sigmoid colon and collapsed, empty rectum is clearly visible (arrow). **Origin:**