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Case Report

Colonic phytobezoar

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ABSTRACT

Bezoars, although rare, represent a small part of the etiologies of intestinal obstructions. They are indigestible masses formed in human beings consisting of hair, seeds, plant fibers, fruits, and even medications. The present report concerns a male patient with a complaint of interrupted flatus passage and feces elimination and pain in the left iliac fossa, initially suspected as a neoplasia of the sigmoid colon. However, analysis of the surgical specimen revealed that the condition was characterized by intestinal obstruction due to an encapsulated phytobezoar. This fact demonstrates the importance of a differential diagnosis, with emphasis on the relevance of considering the presence of bezoars despite their rare occurrence.

Fitobezoar cólico

Palavras-chave:
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RESUMO

Os bezoares, embora raros, representam uma pequena parte das etiologias das obstruções intestinais. São massas indigestíveis formadas em seres humanos que consistem em cabelo, sementes, fibras vegetais, frutas e até mesmo medicamentos. O presente relato retrata um paciente do sexo masculino com uma queixa de parada de eliminação de flatos e fezes somado à dor na fossa ilíaca esquerda, que inicialmente suspeitou-se como neoplasia

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do cólon sigmoide. No entanto, a análise das peças cirúrgicas revelaram que a obstrução intestinal ocorreu devido à presença de um fitobezoar encapsulado. Este fato demonstra a importância do diagnóstico diferencial, com ênfase em considerar a presença de bezoares apesar de sua rara ocorrência.

Introduction

The term "bezoar", derived from the Arabic "bazahr" or "badzehr", means antidote or antivenom,[1] and the first case report has been described in 1779 by Baudamant[2] in Paris. Bezoars are masses originating from the ingestion of poorly digestible or fully indigestible products, which leads to the condensation of this detritus in the stomach or another part of the gastrointestinal tract.

There are four types of bezoars: phytobezoars consisting of plant material and fruit, mainly persimmon; trichobezoars consisting of hair; lactobezoars consisting of milk residues, and pharmacobezoars consisting of medications.[3]

Intestinal obstructions caused by bezoars are rare and correspond to 0.4–4% of all such conditions, mainly occurring in the stomach and in the small bowel. The occurrence of colonic obstruction by bezoars is a very rare finding,[4] at time confused with neoplasias, gallstone ileus and fecal impaction, although imaging exams can reveal different patterns of presentation, thus being of help for a differential diagnosis.[5]

High-fiber diets, incomplete chewing, low gastric secretion, gastrointestinal motility and digestive surgeries are predisposing factors for formation of phytobezoars.

The pathogenesis of phytobezoars is based on the interaction of compounds found in leguminosae and fruits (shibuol and tannin) with gastric acid, forming a structure that accumulates cellulose and other proteins.[6]

The present report describes the clinical course of a patient with an initial suspicion of a sigmoid neoplasia, ruled out after analysis of the surgical specimen, which consisted of an encapsulated phytobezoar as confirmed by anatomopathological examination.

Case report

A 69-year-old male patient was admitted to the emergency room of the Carlos Fernando Malzoni Hospital in Matão, São Paulo.

The patient complained for intense pain, classified as 7 on a 0–10 verbal numerical scale, and stated that he had been unable to eliminate flatus and feces since the previous day. There are 6 months, reported that there were changes in your intestinal habits, feces of normal coloring, but were longer and thicker texture added to the evacuation effort and pain on defecation of progressive worsening. He denied bleeding, changes in fecal odor, nausea or vomiting. He reported a 6 kg weight loss since the beginning of these signs and symptoms.

Physical examination revealed a patient in regular general condition, hypotensive, afebrile and with tachycardia. Hyperactive bowel sounds were also detected, mainly in the left hypochondrium and LIF. The patient's abdomen was rigid and reported pain in the LIF upon superficial and deep palpation, with his entire abdomen being tympanitic upon percussion. The rectal examination revealed the absence of feces, blood or melena in the rectal ampulla.

Laboratory tests were requested for case resolution, revealing only eosinophilia. Next, Computed Tomography (CT) and Colonoscopy (CLN) were the imaging exams requested.

CT revealed irregular and asymmetric thickening in the sigmoid colon with focal reduction of caliber and no expressive changes in the fatty planes of the mesosigmoid. A primary expansive lesion was suspected (Fig. 1).

CLN revealed the presence of an expansive stenosing fixed lesion with edematous and hyperemic mucosa that did not permit the passage of the instrument in a section of the middle sigmoid (Fig. 2). A biopsy was obtained.

Evaluation of the results and of the diagnostic hypothesis of a sigmoid neoplasia plus the decline of the general clinical condition of the patient led to the decision to perform exploratory laparotomy through an infraumbilical median incision. O small amount of ascitic fluid was observed during the opening of the peritoneal cavity. Sigmoidectomy and descending colon to rectum anastomosis were performed. The cavity was washed with physological saline and the abdominal cavity was closed according to the anatomical planes.

Incision of the surgical specimen revealed the presence of material resembling compacted and encapsulated indigestible fibers in the topography of the lesion indicated by CT and CLN (Fig. 3), characterizing a phytobezoar (Fig. 4). The surgical specimens – sigmoid colon and bezoar – were submitted

Fig. 1 – CT transverse section demonstrating irregular and asymmetrical thickening of the sigmoid colon wall. Absence of lymph node enlargement in the mesosigmoid. Suspicion of an expansive primary lesion.

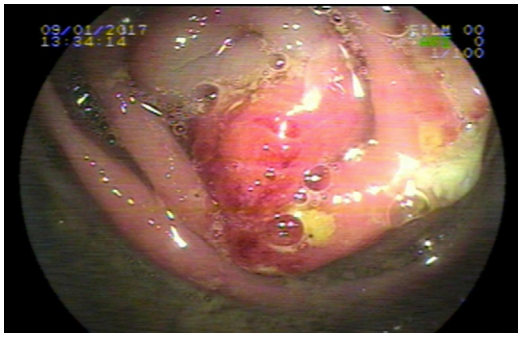

Fig. 2 – Colonoscopy revealing an expansive lesion covered with intraluminal mucosa in the sigmoid colon.

Fig. 3 – Incised surgical specimen showing the presence of an encapsulated phytobezoar.

to Anatomopathological (AP) analysis for diagnostic confirmation and for a full exclusion of the hypothesis of neoplasia.

The Postoperative (PO) period elapsed with no intercurrence, the patient showed good acceptance of the diet, defecated on the 2nd PO day and was discharged from the hospital on the 5th PO day.

The biopsy performed during CLN revealed a chronic inflammatory process and the absence of neoplastic cells.

AP analysis revealed the presence of a chronic inflammatory process throughout the sigmoid colon, the absence of neoplastic cells and the presence of a compacted amorphous

Fig. 4 – Phytobezoar.

substance (phytobezoar). Mesosigmoid lymph nodes showed the presence of a chronic inflammatory process.

Discussion

Few cases of intestinal obstruction secondary to bezoar impaction have been reported in the literature, representing only 4% of all cases, with this number being even smaller in relation to colonic obstructions. Clinically the complaints are nonspecific and resemble those induced by other causes such as neoplasia, sigmoid volvulus, vomiting, constipation, diarrhea, anorexia, and weight loss.[5] In the present case, the diagnostic hypothesis was a sigmoid neoplasia based on symptoms such as abdominal pain, progressive constipation, evacuation effort, weight loss, and flat stools before obstruction, events that led the patient to look for medical care.

Complementary imaging exams such as CLN and CT are fundamental for the confirmation of the diagnosis and for the possible staging of colonic diseases. In addition, they are indicated for therapeutic purposes such as obtaining a biopsy, endoscopic removal of bezoars, or surgical planning when indicated.[7] At CT, bezoars are seen as well-delimited air-containing masses inside the intestinal lúmen.[8] At CLN, they are also observed in the intestinal lumen, with a fecal aspect and of variable color according to their composition.[4,5,7] Despite the specific feature of bezoar in the CT, in this case there was a variant on your presentation, wich resembled the sigmoid neoplasia due to the lack of visualization of its borders and the absence of air in your interior. In addition, the CLN image revealed an expansive lesion covered with mucosa in the intestinal lumen rather than the bezoar itself.

The therapeutic options involve conservative treatment based on manual disimpaction, digital evacuation and

enemas.[5] If this strategy fails, there is the option of removal by CLN using bezoar fragmentation and extraction with the endoscopy instruments.[3] Finally, there is surgical removal consisting of colotomy followed by colorrhaphy in cases of complications such as obstruction, and sigmoidectomy is indicated in the presence of intestinal perforation and necrosis.[9] In the current case, the option was sigmoidectomy followed by descending colon to rectum anastomosis in view of the diagnostic hypothesis of sigmoid neoplasia. The presence of the encapsulated phytobezoar was observed only after analysis of the surgical specimen.

In view of the above considerations, we conclude that bezoars are a rare condition which, however, should be considered in the differential diagnosis of cases of mechanical intestinal obstruction. Since the presentation was unusual, the choice of sigmoidectomy as surgical treatment was necessary due to the obstructive signs and symptoms in order to reestablish evacuation function, to remove the primary lesion and to guarantee the wellbeing of the patient. Thus, we conclude that the diagnosis of bezoars is multimodal, with the condition being confirmed only after the surgical removal of the lesion.

Conflicts of interest

The authors declare no conflicts of interest.

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