Case Report

Bezoar by mesalazine tablets: cause of intestinal obstruction in Crohn's disease

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ABSTRACT: The stricturing and fistulizing forms of Crohn's disease (CD) exhibit many different results to clinical treatment and good response to surgical therapy. The prevalence of strictures in CD ranges from 12 to 54% and they are more frequently in patients with longer disease duration, and the terminal ileum is the most commonly affected location. The pharmacobezoars can be formed in any part of the gastrointestinal tract and are often associated with factors predisposing anatomic, functional or other concomitant conditions. The pharmacological properties of drugs may contribute to the pathophysiology of bezoars. The objective of this case report is to alert for the importance of the quality of prescribed medications that are used by patients with CD, through the finding of more than 350 tablets of mesalazine during the surgical treatment of a patient with the fibrostenotic pattern.

Keywords: Crohn's disease; intestinal obstruction; constriction, pathologic; mesalazine; surgery.

RESUMO: As formas estenosante e fistulizante da doença de Crohn (DC) apresentam resultado variável ao tratamento medicamentoso e boa resposta à terapia cirúrgica. A prevalência da DC estenosante varia de 12 a 54%, mais frequente nos pacientes com maior tempo de doença, sendo o íleo terminal o local mais acometido. Os farmacobenzoares podem se formar em qualquer porção do trato gastrointestinal e frequentemente estão associados a fatores anatômicos predisponentes, funcionais ou outras afecções concomitantes. As propriedades farmacológicas dos medicamentos podem contribuir na fisiopatologia da formação dos benzoares. O objetivo deste trabalho é alertar para a importância da qualidade dos fármacos prescritos e utilizados pelos pacientes com DC, por meio do achado de mais de 350 comprimidos de mesalazina durante o tratamento cirúrgico de um paciente com o padrão fibroestenosante.

Palavras-chave: doença de Crohn; obstrução intestinal; constrição patológica; mesalamina; cirurgia.

INTRODUCTION

Crohn's disease (CD), in both stricturing and fistulizing forms, presents a variable result to clinical treatment and good response to surgical therapy[1,2]. The presence of strictures in CD ranges from 12 to 54%, being most frequent in patients who have had the disease for longest. The terminal ileum is the most affected location[1-3]. The stricturing phenotype is characterized by the inflammatory and/or fibrotic luminal reduction of one or more segments of the gastrointestinal tract (GIT), shown by means of clinical, radiological, endoscopic examinations or surgical finding[3].

Pharmacobezoars may be formed in any portion of the GIT and are frequently associated with predisposing anatomical and functional factors or other concomitant affections[4]. The pharmacological properties of the drugs can contribute with the physiopathology of the formation of bezoars[4]. In literature, cases of bowel obstruction associated with undissolved pills above the stenosis are rare.

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The objective of this study is to alert the medical community and health administrators as to the importance of the quality of prescribed medicines used by patients with CD, by means of the finding of more than 350 pills of mesalazine during enterectomy for stricture in CD.

CASE REPORT

A 28 year-old male patient diagnosed with CD was referred to the inflammatory bowel disease outpatient clinic of the Coloproctology Service at Hospital Heliópolis, in São Paulo, . He had been using mesalazine 2.4 g/day for a year. One month earlier he had been complaining of crampy abdominal pain and abdominal distension associated with weight loss of 8 kg. At physical examination, he was thinner, with distended, tympanic and painless abdomen, with a palpable mass in the right iliac fossa (RIF). Rectal exam was consistent with normal mucosa up to 15 cm from the anal verge, and colonoscopy showed a stricture at the proximal sigmoid with pseudopolyps and an orifice suggestive of fistula.

He underwent exploratory laparotomy, which showed annular stenosis of the small bowel 150 cm from the ligament of Treitz, proximal dilation and luminal contents suggestive of a foreign body to palpation (Figure 1); ileosigmoid fistula 50 cm from the ileocecal valve; and ileocolic fistula involving the ascending colon and terminal ileum (Figure 2). After the enterectomy, 350 pills of mesalazine were found in the site of the stenosis (Figure 3).

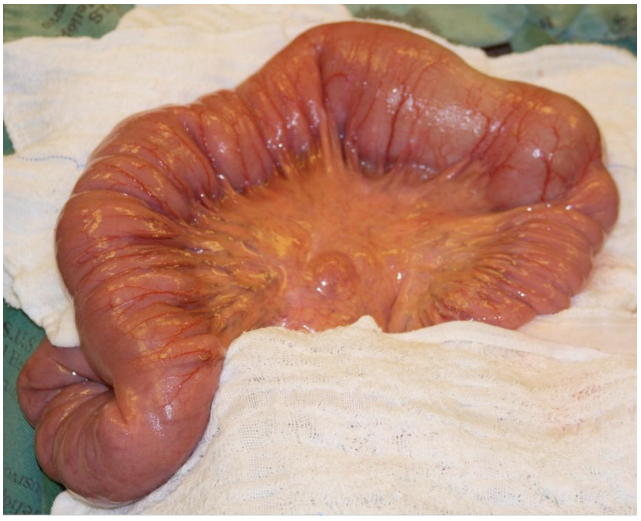

Figure 1. *Extensive dilation of the small bowel with mesenteritis.*

Ileocolectomy, sigmoidectomy and two enterectomies were performed with primary anastomoses. The patient is currently being followed-up at the inflammatory bowel disease outpatient clinic and is asymptomatic, using biological therapy.

DISCUSSION

The Montreal classification establishes three patterns of behavior for Crohn's disease: inflammatory, stricturing and penetrating. The fibrostenotic type may occur in up to half of the patients with CD. The forma-

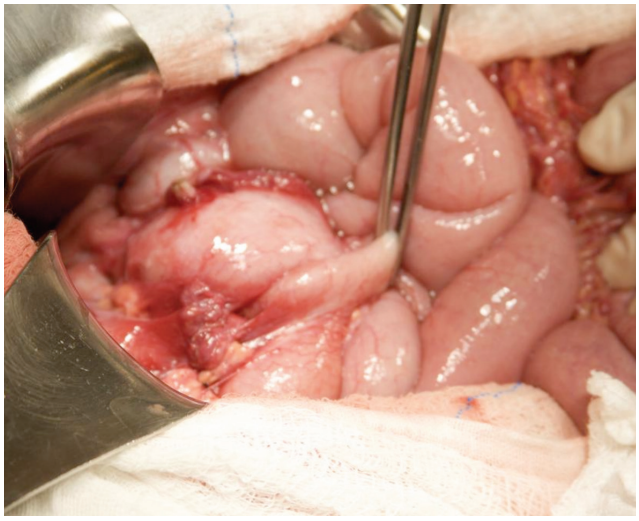

Figure 2. *Fistula of the terminal ileum with the right colon.*

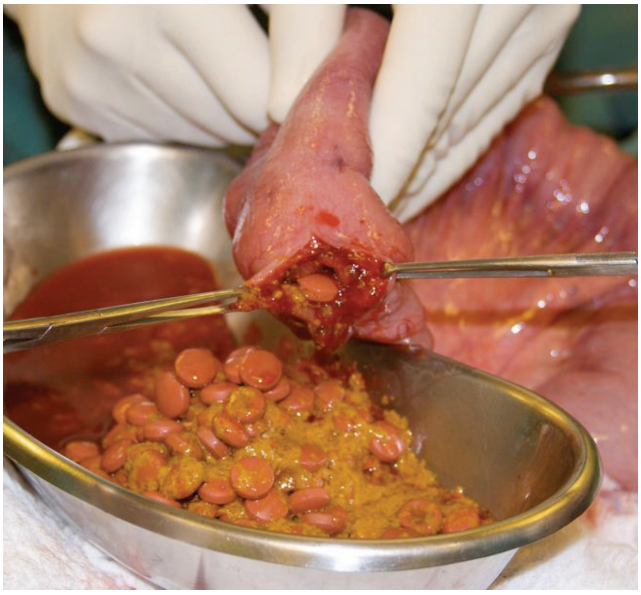

Figure 3. *Enterectomy with the removal of pills.*

tion of stenosis with decreased intestinal lumen due to fibrosis is a result of the wound repair process in the transmural inflammation[3]. The clinical manifestations of the fibrostenotic behavior vary according to the location of the disease, the intensity and extension of stenosis and the general status of the patient. Peritoneal irritation on physical examination means intestinal perforation or ischemia[3].

Bowel obstruction caused by fibrostenotic CD has a differential diagnosis with postoperative adherence[2,3], inflammatory parietal thickening[3], enterolytes[3,5-9], bezoars[3,10,11], seeds[3,12], medications in the form of pills[1], endometriosis[3], hernias[2,3], intussusception[3], pseudopolyps[13], tumors[14] and biliary ileus[3].

Bezoars are concretions of different materials, partially digested or not, which can be formed by fibers (phytobezoars), hair (trichobezoars), medications (pharmacobezoars), among others[4]. There are few reports in literature concerning bowel obstruction in patients with Crohn's disease caused by medications in form of pills[1]. The formation of pharmacobezoars is related to the chemical and pharmacological properties of the pills, with formulas covered with late absorption or continuous liberation, besides individual predisposing factors, such as inflammatory, tumoral or post-surgical strictures[4].

A simple abdominal x-ray shows the distension of bowel loops with hydroaeric levels, however, 30% of the x-rays' results are false negatives[3]. The contrast imaging tests of the GIT may show the reduction or the stagnant contrast transit, changes in the prominent mucous cell and areas of stenosis with dilation above[3,5]. Currently, the computed tomography of the upper abdomen and pelvis with contrast is the most used examination to establish the diagnosis and treatment of fibrostenotic CD. With 92% sensibility and 71% specificity, it identifies all the aforementioned findings, besides showing parietal thickening of the site affected by the disease, presence of intraluminal foreign body, signals of inflammatory activity in the mesenterium and complications such as abscesses and fistula[2,3,6,7],

Due to the advancements in imaging diagnostic tests and the poor response to drug therapy, the surgical approach for the fibrostenotic behavior of CD has been indicated earlier for two decades. Trece et al.[4], in 2010, reported a case of pharmacobenzoars with mesalazine pills which, associated to the present description, points to the importance of using the medications properly according to its pharmacological conditions, as well as to their adequate state of conservation, so that their active principle may indeed function to control the disease.

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