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Intestinal Obstruction Associated with Pharmacobezoar in a Patient with Crohn's Disease: A Case Report

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Abstract

Crohn's disease might result from a complex interplay between genetic susceptibility, environmental factors, and altered gut microbiota, leading to dysregulated innate and adaptive immune responses. The reported case presents a patient with intestinal subocclusion associated with a pharmacobezoar who had a good evolution with clinical treatment. This case report aims to demonstrate the complexity of diagnostic search, even with the classic version of the disease. And it also comes to show the need for a thorough medical history and differential diagnosis investigation.

Keywords

Intestinal Obstruction, Pharmacobezoars, Crohn's Disease

1. Introduction

Crohn's disease (CD) is a chronic inflammatory bowel disease that affects any part of the gastrointestinal system, being more common between 15 and 40 years of age [1]. Classic symptomatology includes diarrhea, vomiting, weight loss, abdominal pain, fever and malnutrition. Stenosis in CD varies from 12% to 54% frequency, it is more common in patients with already long term disease and the terminal ileum is the most commonly affected location [2] [3] [4].

The diagnosis is made through clinical data, radiological and histological findings, even without any characteristic that alone makes up the diagnosis of specific inflammatory bowel disease [1].

A bezoar is an accumulation of indigestible material that gets trapped in the

gastrointestinal tract. These masses can be formed by different substances, which may be ingested either intentionally or accidentally. Some of the materials that can form bezoars include plant derivatives such as fibers, vegetable and fruit skins or seeds (known as phytobezoars), ingested hair (trichobezoars), and medications (pharmacobezoars) [5] [6].

The pharmacological properties of drugs can contribute to the physiopathology of the development of bezoars. In the available literature, there are few reported cases of bowel obstruction linked to undissolved pills located above an area with stenosis [2].

2. Case Report

A 30 years old, male patient, born in São Paulo, complaining of crampy abdominal pain for 3 months associated with weight loss, postprandial vomiting and some episodes of arthralgia. Denies diarrhea. He also reports having been submitted to drainage of a perianal abscess 2 years ago, and earlier on he had presented with hematochezia.

He was firstly evaluated at another service and submitted to computed tomography of the abdomen in which signs of ileitis and sub stenosis were identified. Despite the clinical signs, they hypothesized a diagnosis of celiac disease associated with nonspecific enteritis and introduced Mesalamine 2400 mg/day and suggested a gluten-free diet.

Two days after starting the medication, the patient had severe abdominal pain and fecal vomiting without improvement with symptomatic medication. He was in regular general condition, dehydrated, emaciated, afebrile, with a distended tense and painful on diffuse palpation abdomen, with a positive rebound tenderness test.

Complementary exams showed iron-deficiency anemia, leukocytosis and accentuated diffuse liquid distention in the ileal and jejunal loops, interspersed with segments of loops with parietal thickening/enhancement (**Figure 1**). Presence of hyperdense bodies (compressed?) inside the ileal loop on the left flank (**Figure 2**). Therefore, the findings may correspond to active inflammatory bowel disease with associated intestinal subocclusion.

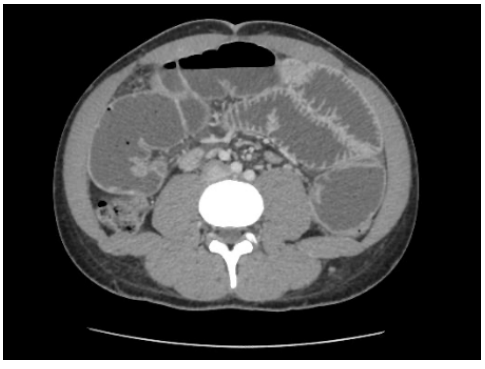

Figure 1. Tomography of the abdomen suggestive of involvement secondary to Crohn's disease.

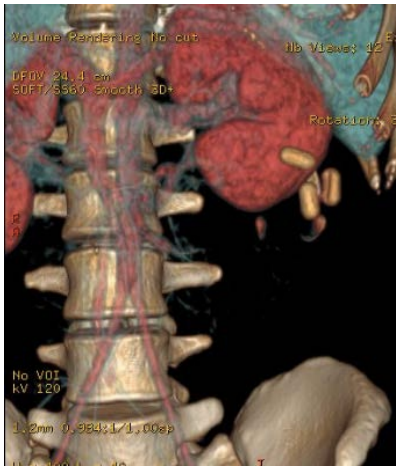

Figure 2. Tomography of the abdomen with 3D reconstruction demonstrating intact pills.

In view of the findings, the patient was hospitalized urgently for corticosteroid therapy, parenteral nutrition, intravenous antibiotic therapy and insertion of a nasogastric tube.

He showed improvement of the subocclusive condition and new control image examination was performed which showed complete absorption of the pharmacobezoar. The patient was discharged after a week with a restricted diet, prophylaxis for Strongyloides and a negative tuberculin skin test for the initiation of immunobiologicals. At the moment, he is in outpatient follow-up, in clinical remission.

3. Discussion

Crohn's Disease (CD) is a chronic inflammatory process of the gastrointestinal system. It is categorized under a broader group of illnesses known as Inflammatory Bowel Disease (IBD). It can involve any portion of the alimentary tract from mouth to anus but primarily targets the ileum of the small intestine [4] [7].

Patients with CD may complain for months, even years, of vague abdominal pain and diarrhea before the diagnosis is even made. Physical findings can vary depending on the activity of the disease. When the disease is active, the patient may present with weakness, pallor, fever, fatigue, and may appear chronically ill. Predominant symptoms of the disease include abdominal pain, diarrhea, and weight loss [1] [7]. Frequently, abdominal distention, nausea, and vomiting may present along with pain. The abdomen may be tender to palpation over the area of active disease, and a positive rebound tenderness test is common [4].

Crohn's disease (CD) can be challenging to diagnose due to its insidious onset and overlapping symptoms with other types of colitis. The process of differential diagnosis should involve considering conditions like acute appendicitis, small bowel obstruction, ulcerative colitis (UC), and infectious colitis [4] [6].

There have been a few reported cases of bowel obstruction in CD patients caused by bezoars. The tendency of stenosis development in CD patients also

increases the likelihood of gastrointestinal bezoar formation [2].

An accurate diagnosis relies on a comprehensive assessment that incorporates the patient's medical history, clinical presentation, imaging examinations, and endoscopy. A detailed history and thorough physical examination can facilitate the diagnostic process. Imaging studies, such as abdominal radiography with or without contrast and CT scans, are often valuable since they can reveal bezoars as masses or filling defects. Colonoscopy remains the gold standard exam, providing crucial information through observations of segmental inflammation, apthoid, and the presence of longitudinal and serpiginous ulcerations, which are typical findings in CD3.

Recently, Wu and Chen [5] presented a management algorithm for handling bezoars and foreign bodies in individuals with inflammatory bowel disease (IBD). According to their proposal, if a patient experiences asymptomatic or partial small bowel obstruction accompanied by an inflammatory stricture, they recommend adopting a "wait and see" strategy coupled with medical treatment involving steroids. However, if the conservative approach proves ineffective, they strongly advise considering endoscopic or surgical interventions. In the case of our patient, considering the inflammatory nature of the stenosis, an appropriate course of action would be to adopt a "wait and see" approach while administering intravenous corticosteroid therapy. Because the patient did not know that he had Crohn's disease, he had never been submitted to pulse therapy and we did not have a previous MR Enterography for comparison.

4. Conclusion

This report shows that there are still difficulties in identifying the disease, since CD isn't the most common diagnosis hypothesis and physicians end up researching infectious diseases and food intolerances first. The bezoar stood out as an incidental finding during the diagnostic investigation, however, to some degree, it may have contributed to the clinical picture presented by the patient. Both conditions were resolved with clinical treatment. Thus, we reaffirm the individualized character of the clinic and therapeutic management in cases of pharmacobezoars, mainly in patients with inflammatory bowel disease.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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