Duodenal Crohn's disease

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The Authors report on an uncommon case of duodenal Crohn's disease in an adult man.
The patient was admitted for a history of epigastric pain, recurrent vomiting, weight loss and low grade fever. He was evaluated with esophagogastroduodenoscopy and with radiological double-contrast technique.
Then, due to these untreatable clinical manifestations, he underwents a surgical treatment.

KEY WORDS: Crohn's disease, Duodenal Crohn's disease.

Introduction

Crohn's disease may affect any area of the gastrointestinal tract but the duodenal involvement is rare. In case of duodenal involvement symptoms are often non-specific however the most typical presentations are abdominal pain and/or cramps, nausea, vomiting and weight loss [1-6].
Diagnosis is achieved combining recognition of clinical data and radiological double-contrast features.
Medical therapy is the first choice of treatment but surgery is indicated in case of complications such as massive bleeding, progressive stenosis or fistulas [7-9].
The reported case concerns a duodenal localization of Crohn's disease.

Case report

A *52 year old man* was admitted to our hospital with a long-standing history of severe and repeated episodes of vomiting associated with crampy abdominal pain, especially after every meal.
The patient had a 7-year-old history of poor digestion with a diagnosis of gastritis but just 1 year ago he began to present with vomiting and weight loss.
Considering these clinical manifestations, he underwent esophagogastroduodenoscopy which showed a partial duodenal stenosis with an ulcer above: such restriction was not superable with the instrument and was also present a gastric dilatation with a big amount of biliary fluid; were also performed multiple biopsies through the stenosis.
Some days later, a small-bowel follow-through study was performed in order to further evaluate the patient, which demonstrated folds thickening with cobblestoned mucosa and several narrowings of duodenum. Therefore duodenal Crohn's disease was proposed as the most likely diagnosis.
The patient started a steroid therapy but two months ago, due to the progressive worsening of symptoms, he was readmitted for a surgical treatment.
A gastric outlet obstruction made necessary a manual transmesocolic gastroenteric anastomosis, according standard technique, to bypass duodenal stenosis.

Discussion

Duodenal Crohn's disease affects only 1% to 3% of patients with this condition [6].
The exact cause of Crohn's disease remains still unknown. Histologically it is characterized by the presence of noncaseating granulomas, fissuring ulceration, and transmural inflammation with focal collections of lymphocytes scattered across all layers of the gastrointestinal wall and extending into the serosa.
Although the disease is most common in young male adults, it is seen also in children, in whom growth failure and delayed puberty are important complication, and in the elderly patients.

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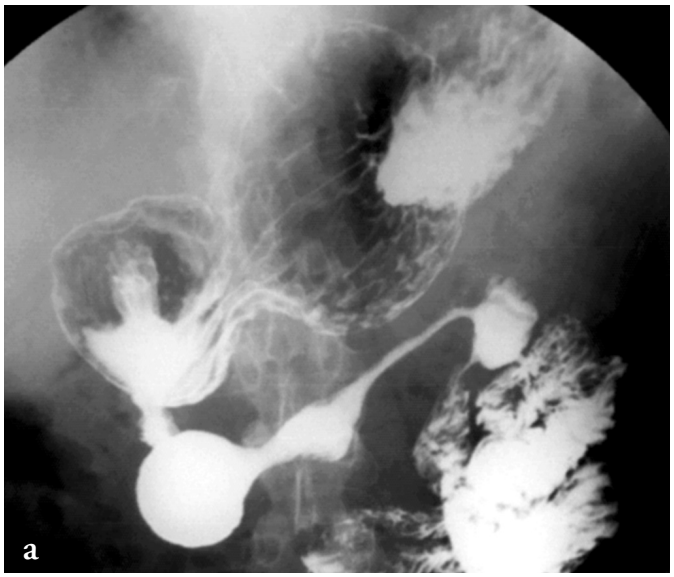

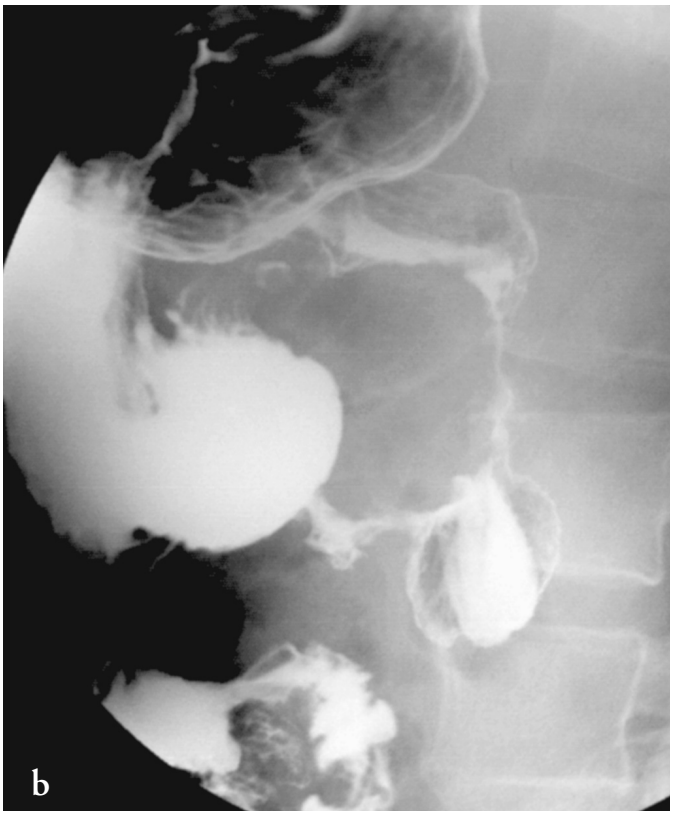

Fig. 1a-b: Before surgery: double contrast X-Ray shows duodenal segmental narrowings followed by dilatations up to the first jejunal loop with typical findings of Chron's disease.

Crampy abdominal pain, nausea and/or vomiting, weight loss, low grade fever and also intermittent diarrhea are the non-specific symptoms that may be observed. The main complications are due to the transmural nature of the disease. This leads to the formation of abscesses, fistulae, strictures, and adhesions, which also may contribute to the development of obstruction or bacterial overgrowth. The risk of malignancy is slightly increased with respect to the unaffected population. In addition to local complications, a variety of extraintestinal manifestations may be associated with Crohn's disease such as skin lesions, peripheral arthritis, ankylosing spondylitis and sacroiliitis, recurrent iritis and uveitis, kidney stones, gallstones, or other diseases of the liver and biliary system from simple elevation of enzyme levels to hepatic abscess [1-6]. Some of these problems may resolve during standard treatment, but some may require a specific therapy.

The aim of surgery is to be as much as conservative as possible and to be limited to treat local complications. In such case after the medical treatment has failed to restore a complete canalization, has been necessary to perform a gastroenteric bypass [8,9].

Radiologically, double-contrast barium technique allows an accurate diagnosis of duodenal Crohn's disease. This study is absolutely necessary in defining the nature, the distribution, the localization and the severity of such stenosis, not to be otherwise portrayed also with very thin flexible endoscopic instruments.

Small-bowel follow through study allows not only morphological but also dynamic informations concerning the activity of the disease and its extension [5,6].

Histopathological findings confirmed the diagnosis.

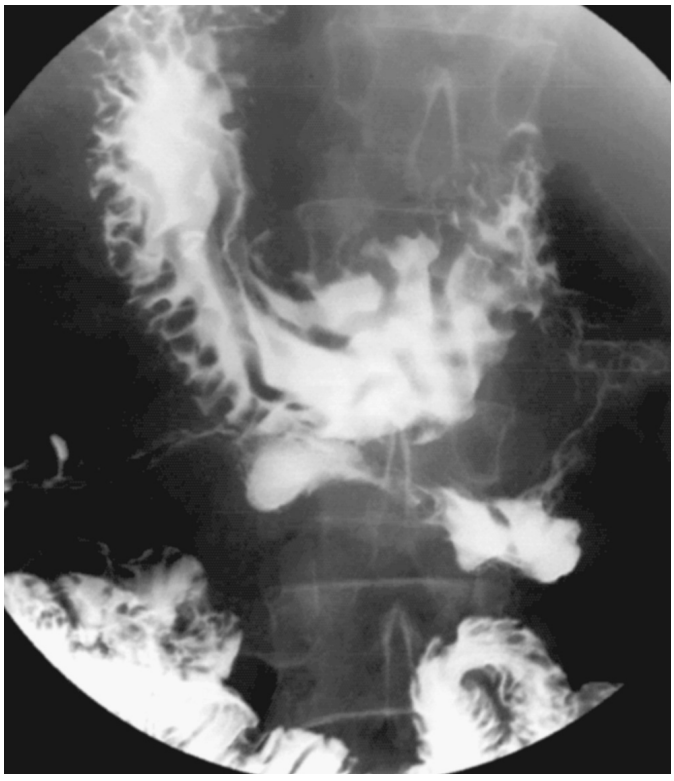

Fig. 2: After surgical treatment: water-soluble oral contrast media shows gastrojejunal by-pass and the filling of the excluded duodenal-jejunal tract.

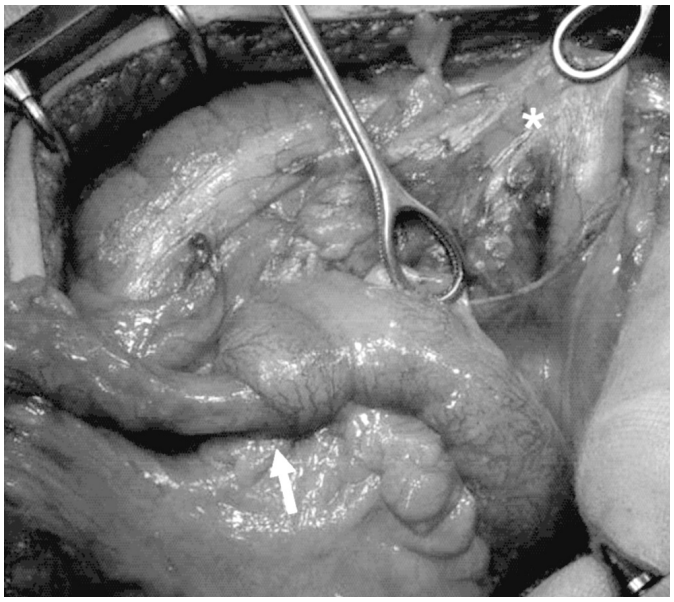

Fig. 3: The picture shows posterior gastric wall (*) and an intestinal tract with partial stenosis (arrow) due to Crohn's disease.

Riassunto

Viene descritto un caso poco comune di malattia di Crohn del duodeno in un adulto.
Il paziente era stato ricoverato per una storia di dolore epigastrico, vomito ricorrente, perdita di peso e febbricola. Venne studiato e diagnosticato con esofago-gastroscopia e radiografie con pasto opaco con tecnica a doppio contrasto. Il trattamento chirurgico venne deciso per l'intrattabilità della sintomatologia descritta.

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