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CLINICAL IMAGE IN GASTROENTEROLOGY

The string sign in Crohn's disease

El signo de la cuerda en la enfermedad de Crohn

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A previously healthy 48-year-old man came to the emergency service presenting with diffuse abdominal pain of three-month progression, associated with periods of diarrhea, bloating, and weight loss of approximately 10 kg. Upon admission, his vital signs were within normal parameters and abdominal examination showed no peritoneal irritation, masses, or visceromegaly. A calprotectin stool test reported fecal calprotectin of 2,351 $\mu\text{g/g}$ (reference value: $< 50 \mu\text{g/g}$) and a lower gastrointestinal barium x-ray revealed filiform contrast medium passage at the level of the ileum (string sign) (Fig. 1). During colonoscopy, active ulcerative ileitis was observed, with a polyp at the mouth of the ileocecal valve. The anatomopathologic study reported mild diffuse chronic inflammation (Fig. 2). Given the diagnostically inconclusive results, magnetic resonance enterography was performed, and the findings were consistent with Crohn's disease (CD) (Fig. 3 A and B). Treatment for moderate ileal CD was indicated: induction therapy with oral steroids and the later addition of thiopurines for remission maintenance. At three months of follow-up, the patient experienced symptom improvement, weight gain, and the absence of flare-ups.

Ethical considerations

The authors declare that informed consent was obtained from the patient. The present work meets the current bioethics research regulations and was approved by the



Figure 1 Intestinal transit, anteroposterior view of the abdomen 50 minutes after oral contrast medium administration, showing adequate passage through the duodenum and jejunum. Sudden narrowing of the caliber of the ileal lumen is visualized in a 10 cm tract, identifying filiform contrast medium passage, with the anteroposterior diameter measuring 1.5 mm (string sign) (arrows), suggestive of Crohn's disease.

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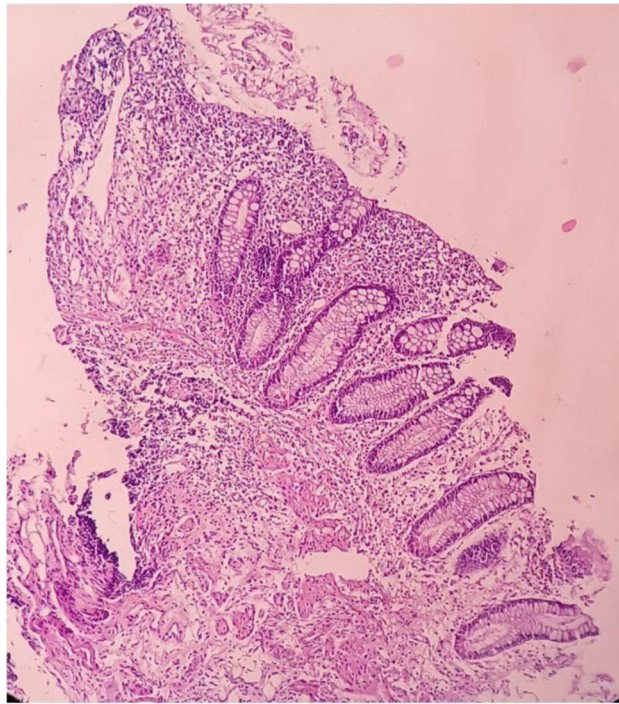


Figure 2 Biopsy of the ileum. H/E stain, x20. Moderate, active, chronic ileitis. Discontinuous architectural distortion, aphthous ulcers, mixed diffuse inflammatory infiltrate forming submucosal lymphoplasmacytic aggregates, with no presence of granulomas.

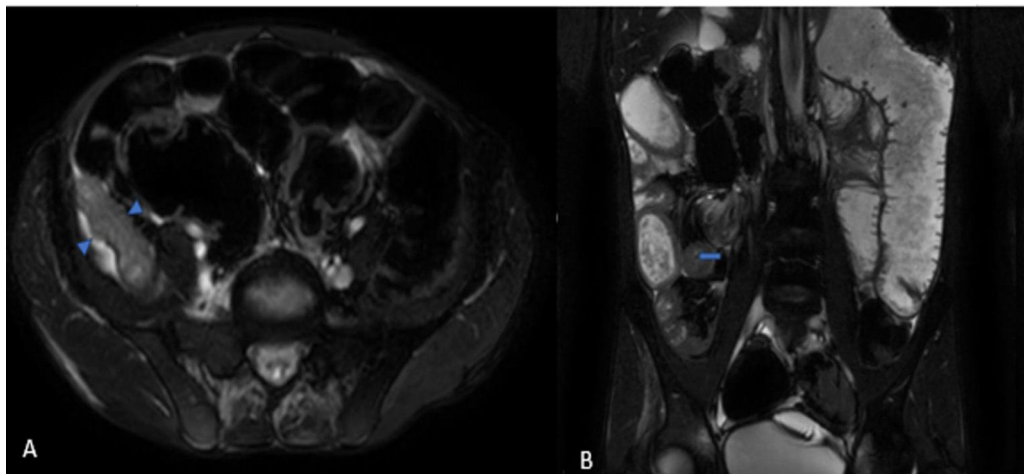


Figure 3 Magnetic resonance enterography, BTFF sequence: A) axial view, B) coronal view. Severe thickening and parietal stratified-looking edema of the terminal ileum (arrow heads) with thickness up to 20 mm and length of 10 cm, conditioning luminal narrowing (arrow) with 98% stricture, associated with edema of the mesenteric fat. The MaRIA scoring system was employed, adding the individual scores of the six segments (rectum, sigmoid colon, descending colon, transverse colon, ascending colon, and ileum), obtaining a global index of 3 points.

institutional ethics committee. The authors declare this work contains no information that could identify the patient and guarantees the right to privacy and preservation of anonymity of the patient. No experiments on animals or humans were conducted.

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Conflict of interest

The authors declare that there is no conflict of interest.