Eosinophilic gastroenteritis and bowel obstruction. Can surgery be avoided?

Key words: Intestinal obstruction. Eosinophilic enteritis. Emergency surgery.

Dear Editor,

Eosinophilic gastroenteritis (EGE) is a rare disease of an unknown aetiology, but with a heterogeneous manifestation and course, which affects patients at any age and in any part of the gastrointestinal tract (1). Diagnosis, occasionally in the context of emergency surgery, requires a high degree of suspicion, especially in the absence of peripheral eosinophilia. We report a case in which this entity is illustrated after indication of emergency laparotomy.

Case report

A 69-year-old male with multiple comorbidities (arterial hypertension, chronic obstructive pulmonary disease, wine alcoholism, stroke-induced hemiparesis, smoking) was admitted to our emergency unit for abdominal pain accompanied by progressive abdominal distension and bowel closure. CT with contrast (Fig. 1) revealed signs of intestinal obstruction due to a parietal lesion in the distal jejunum of a possible inflammatory/ infectious origin.

As the obstruction symptoms persisted we decided on emergency surgery, in which we encountered a clear-looking moderate ascites (negative cultures: No microorganisms, scarce polymorphonuclear leukocytes and no eosinophilia) and high bowel obstruction with an abrupt change in calibre in a segment some 4 cm from the jejunum, which was swollen. The segment was resected and a manual end-to-end anastomosis performed. The patient recovered without complications and was discharged. Since then, he has not presented with any gastrointestinal or systemic symptoms during a 1-year follow-up and stool studies for parasites and allergy tests have proved negative.

The pathology anatomy study of the surgical specimen (Fig. 2) reveals a bowel resection fragment with mucosal ulceration and transmural inflammatory infiltration with a prevalence of polynuclear eosinophils, grouping focally to form eosinophilic abscesses. These changes are consistent with a diagnosis of EGE.

Discussion

Eosinophilic gastroenteritis (1) was first reported by Kaijser (2) in 1937. Anatomical-pathological confirmation is necessary for diagnosis, as well as the absence of extraintestinal eosinophilic infiltration (3). Although it is often associated with peripheral eosinophilia this is not considered a diagnostic criterion, as it may be absent in up to 20 % of patients, such as the case we report here. It is a rare entity that affects up to 28 of every 100,000 people (4), more commonly in their 3rd to 5th decades of life and with certain prevalence in males. The natural history of EGE is little known, especially that which starts with bowel obstruction, because follow-up is discontinued once the case is resolved (5). Symptoms are variable and not even the few series published with more than 30 consecutive patients (6) allow a specific syndrome to be established. Pathological anatomy is characterized by an eosinophil-predominant infiltrate which must exceed 20-25 per high-power field (7). The aetiopathogenesis of the condition is unknown.

Surgery should ideally be avoided, except in the case of major abdominal complications (8,9), as steroid treatment and conservative measures can resolve the symptoms in most situations.
Fig. 1. Computed tomography: Dilatation of the duodenum and proximal jejunum of up to 3.5 cm in the area immediately distal to the angle of Treitz (A) as far as the distal jejunum. Axial (C) and coronal (D) images show a slight circumferential wall thickening (7 mm thick) which preserves the layered structure of a 4 cm-long stretch of the distal jejunum (white arrows), with a discrete rarefaction of the adjacent fat (asterisk in figure D); cf. a normal bowel wall (black arrow in figure D). Distal to this the calibre and wall of the bowel is normal. Small amount of ascites between the loops (asterisk in figure B), right subphrenic space, right paracolic gutter and prevalent in the bottom of the rectovesical pouch (not shown).

Fig. 2. Cross-section of the specimen with haematoxylin-eosin staining. A. Sized 33 mm. Close up we can see the discontinuity of the jejunal mucosa (1) with the presence of ulcers (2), in which no epithelium is observed. The thickened submucosa shows congestive vessels (3). Posteriorly, the muscle layer (4) and serous layer (5). B. x200 magnification shows the muscle layer with its myocytes (6), infiltrated by clusters of eosinophils (7), and red-coloured cytoplasm with a blue nucleus.
In our case a lack of improvement was what led to the indication for laparotomy, which finally established the diagnosis and resolved the symptoms.

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References


