

there are intra-abdominal abscesses, percutaneous drainage achieves good results.<sup>1,10,11</sup>

In chronic forms, which manifest as chronic pain or abnormal motility, analgesics and intestinal motility regulators may be useful.<sup>10</sup> Some authors support prophylactic resections due to the seriousness of some complications, such as perforation, while other authors affirm that they have demonstrated no greater benefits<sup>12</sup> and that, furthermore, most patients are elderly and have multiple associated diseases.

In conclusion, diverticula of the jejunum represent a rare disease with multiple clinical manifestations that, due to its low incidence and a lack of awareness thereof, is diagnosed incorrectly. This delays its suitable management and increases its mortality due to complications identified late.

## Conflicts of interest

The authors declare that they have no conflicts of interest.

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2444-3824/

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## Eosinophilic gastroenteritis in a teenager: A rare diagnosis<sup>☆</sup>



### Gastroenteritis eosinofílica en una paciente adolescente: un diagnóstico poco común

Primary eosinophilic gastrointestinal disorders are a group of rare clinical entities (except for eosinophilic oesophagitis), with a broad clinical spectrum. We believe this case is of interest due to the fact that there are few published cases at the patient's age, and the seriousness of her initial signs and symptoms.

A 15-year-old female patient was admitted due to vomiting and abdominal pain for the last 3 months that had

worsened in the last 48 h, accompanied by tetany of all 4 limbs and retrosternal pain.

Her personal history included gastrointestinal symptoms classified as a possible eating disorder with epigastralgia, leading to different consultations. She did not ingest toxins, take drugs or have any purging behaviours. She was diagnosed with *Helicobacter pylori* infection with a breath test and treated with triple therapy. She had no relevant allergies or familial diseases.

Notable findings on admission included her fair general condition, uncontrollable vomiting, tetany and abdominal pain. Initial laboratory testing showed hyperglycaemia with no ketonaemia, modest leukocytosis with a normal formula, CRP 0.6 mg/dl and ESR 26 mm, indicators of dehydration (urea 55 mg/dl and creatinine 1.5 mg/dl), and initially respiratory and, subsequently, metabolic alkalosis. Her fluid and electrolyte balance was corrected, and she was administered ondansetron, omeprazole and diazepam. After a few hours, she experienced clinical and laboratory deterioration with severe metabolic alkalosis (maximum pH 7.73, CO<sub>3</sub>H 38.4 mmol/l and BE 17.6), hypokalaemia and hypochloraemia. This led to her transfer to the

<sup>☆</sup> Please cite this article as: Masiques Mas L, Coll Sibina MT, Sans Tojo J, Conti R, Cuatrecasas M. Gastroenteritis eosinofílica en una paciente adolescente: un diagnóstico poco común. *Gastroenterol Hepatol.* 2017;40:401–403.

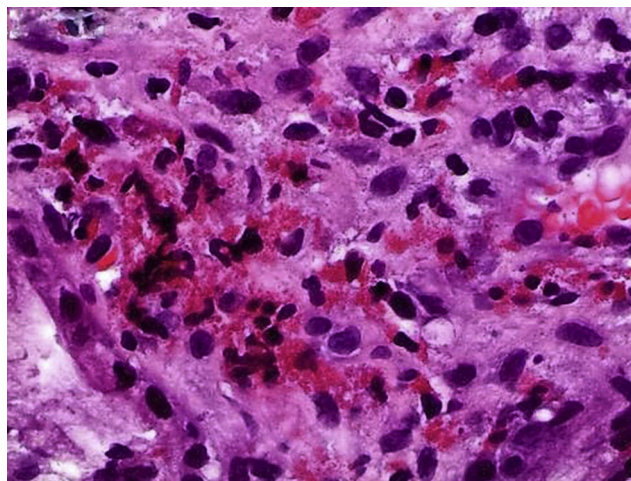
semi-intensive care unit. She required fluid and electrolyte replenishment, treatment with acetazolamide, an insulin pump and peripheral parenteral nutrition for 3 days. When she improved clinically and showed gradual tolerance to polymeric enteral formula, fibrogastroscopy was performed and revealed severe grade C peptic oesophagitis lesions from the middle third to the cardia, with confluent erosions without causing stenosis, a normal stomach and stenosis in the pyloric region. Biopsies reported eosinophilia with no malignancy. An abdominal CT scan was performed which ruled out a mass and reported thickening of the walls of the pylorus and duodenal bulb. After 7 days, for purposes of obtaining more information on the stenosed area, an endoscopic ultrasound was performed at another centre, and showed images of rings in the medial and distal oesophagus with a normal stomach, and stenosis at the duodenal bulb with a normal second part of the duodenum (Fig. 1). Biopsies reported fibrosis and oedema with more than 60 eosinophils/HPF in the medial and distal oesophagus, a normal stomach (with no *Helicobacter pylori* or parasites), and, at the duodenal bulb, oedema and fibrosis in the lamina propria and more than 100 eosinophils/HPF. These findings were consistent with eosinophilic gastroenteritis (Fig. 2). Subsequently, the study was completed and causes of secondary eosinophilia were ruled out.

With this diagnosis and obstructive clinical involvement, the patient was started on treatment with oral budesonide (9 mg/day) and maintenance with azathioprine (following determination of thiopurine methyltransferase activity), in addition to treatment with omeprazole. To date, her clinical course has been satisfactory.

Primary eosinophilic gastrointestinal disorders (EGIDs) encompass a group of diseases characterised by symptoms that cause abnormal infiltration of eosinophils into any part of the gastrointestinal tract, in the absence of other secondary causes, and that may involve different layers. Depending on their location and infiltration, there may be a variety of symptoms. Their treatment and clinical course are



**Figure 1** Image of the open pyloric sphincter in which the stenosis of the duodenal bulb is seen.



**Figure 2** Pathology image of the duodenal bulb mucosa with more than 100 eosinophils per high-power field (HPF).

variable depending on these parameters.<sup>1</sup> The latest studies in the United States reported the following prevalences<sup>2</sup>: 6.3/100,000 for eosinophilic gastroenteritis, 8.4/100,000 for eosinophilic gastroenteritis, 3.3/100,000 for colitis and 57/100,000 for eosinophilic oesophagitis (EoO). They are reported at any age, but the vast majority are elderly and there is a predominance of women. Overall, they are rare at young ages, such as that of our patient.

Pathogenesis reportedly involves a mixed mechanism<sup>3</sup> wherein eotaxin and allergens activate eosinophils, thereby stimulating helper T cells and causing IgE and IL5 to form. Subsequently, mast cells undergo degranulation and release histamine and serotonin, and the gastrointestinal smooth muscle contracts. Signs and symptoms<sup>1,4</sup> vary depending on the involved gastrointestinal tract and layers. Mucosal involvement results in abdominal pain, diarrhoea, weight loss and malabsorption. Muscle involvement results in signs and symptoms of obstruction. Serous involvement may cause ascites. In our patient, involvement of the oesophagus and duodenal bulb, as well as muscle infiltration, caused signs and symptoms of obstruction. Our patient had no eosinophilia or history of allergy. Eosinophilia occurs in 20–80% of cases, and is more common in the serous form. Allergic comorbidity is very common and occurs in up to 45% of patients. Diagnosis is confirmed by biopsy which reports the eosinophil count per HPF and the number of layers involved.<sup>5</sup>

Treatment depends on the area involved and its infiltration. In our patient, dietary treatment was rejected,<sup>6</sup> and it was decided to use oral budesonide<sup>4</sup> and maintenance with azathioprine due to the possibility of recurrences, and omeprazole to treat her peptic oesophagitis.

We believe the case is interesting, considering the age of the patient; the serious form of onset in a teenager with a history of gastrointestinal symptoms classified as a possible eating disorder, which caused us to initially doubt its organic nature; and the severe impairment, which required us to consider long-term immunosuppressant treatment.

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2444-3824/

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## Capsule endoscopy: Diagnosis of lobular capillary haemangioma<sup>☆</sup>



### Cápsula endoscópica: diagnóstico de hemangioma capilar lobulillar

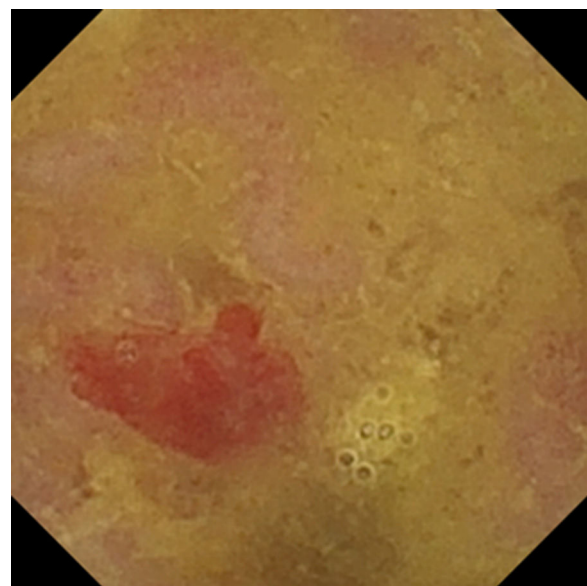
Lobular capillary haemangioma (also called pyogenic granuloma) is a benign vascular lesion of the skin or mucous membranes characterised by rapid growth and a friable surface.<sup>1,2</sup> Involvement of the skin is much more common than involvement of the mucosa, where the predominant sites are the gums and the oral cavity.<sup>3</sup> Its development in the gastrointestinal tract is very rare.<sup>4</sup> We present the case of a 52-year-old woman with no relevant history who was referred from outpatient care, due to a haemoglobin level of 4.5 g/dl, and admitted. Her only symptoms were asthenia and a single episode of haematochezia.

A gastroscopy was performed and detected only a mucosa with patchy erythema in the antrum and body, with no other associated lesions. An ileocolonoscopy showed isolated diverticular orifices in the sigmoid colon, with no evidence of bleeding. Subsequently, a capsule endoscopy was performed and showed a raised formation with a polypoid appearance in the jejunum and eroded mucosa at the apex of its surface, 1 cm in size (Fig. 1). As it could have been related to the patient's signs and symptoms, it was decided to resect the small bowel segment described and perform a latero-lateral surgical anastomosis. The results of the histology study revealed a polypoid haemangioma (lobular capillary haemangioma) in the mucosa, superficially ulcerated with signs of bleeding, with no signs of malignancy.

The most common indication for capsule endoscopy is an assessment of suspected bleeding from the small

bowel, including iron-deficiency anaemia and haemorrhage of unclear origin. However, even with the use of capsule endoscopy, it may be difficult to identify the cause of bleeding in the small bowel. Vascular abnormalities may end up being found in the gastrointestinal tract.<sup>5,6</sup> Some lesions are present from birth or as part of syndromes; however, most are acquired throughout life.

The aetiopathogenesis of lobular capillary haemangioma is unknown. Although it may occur at any age, it is more common in children and young adults in their teens and twenties.<sup>2</sup> In the case presented, the patient happened to be older. The surface of this lesion may ulcerate and bleeds very easily. In fact, in terms of signs and symptoms, when there is gastrointestinal involvement, patients range from being asymptomatic to presenting



**Figure 1** Capsule endoscopy image: vascular lesion consistent with lobular capillary haemangioma.

<sup>☆</sup> Please cite this article as: Magaz Martínez M, Martínez Porras JL, Barrios C, Abreu L. Cápsula endoscópica: diagnóstico de hemangioma capilar lobulillar. *Gastroenterol Hepatol.* 2017;40:403–404.