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Letters to the Editor

Bowel subocclusion due to *Anisakis*

Key words: Anisakis. Subocclusion. Infection.

Dear Editor,

Infection arising from the ingestion of *Anisakis* larvae, nematode from anisakiadae family, has been described more frequently in Western countries in the last years. Humans have been traditionally considered an accidental host for this parasite whose adult forms are present in marine mammals. The ingestion of raw or undercoocked fish is the way of acquisition of the larvae that usually produces allergic and/or gastrointestinal symptoms. In most of the cases the parasite dies not being able to mature in the human intestinal wall.

The most common allergic manifestations are urticaria, angioedema, and sometimes, anaphylactic shock. These depend on the number of larvae ingested and the sensitization by previous consumption.

We can divide the digestive manifestations among gastric and intestinal. The gastric ones usually appear within the first 24 hours after infection and are characterized by a pattern of intense epigastric pain accompanied by nausea, vomiting and in some cases, chest pain and upper gastrointestinal bleeding. This type of damage is the most prevalent in the world, but in our area more cases of intestinal involvement are described.

Intestinal manifestations move from a pattern simulating acute appendicitis to bowel obstruction after stenosis of the segment occupied by the parasite, reaching in some cases to perforation of the wall. Colonics forms are rare.

Case report

It is a 36-year-old male, with no antecedents of medical or surgical disease, who consulted due to crampy epigastric pain radiating to the rest of the abdomen of six hours of evolution. There was no fever, nausea or vomiting. He also presented notable borborygmi and was unable to vent. He was prescribed spasmolytics and absolute diet and improved from his symptoms.

Five days later he consulted back due to persistence of the symptoms, loss of appetite and an episode of watery diarrhoea without blood or pathological products. After a deep medical

Fig. 1.

Fig. 2.

anamnesis, the patient acknowledged having eaten raw anchovies with vinegar on the day of the symptoms onset. The abdomen was soft, depressible and painful to diffuse palpation, tympanic at percussion and presented increased peristaltic sounds. Laboratory tests emphasized the normality of all the biochemical data, blood (including the absence of eosinophilia) and coagulation. Radiographies of abdomen showed dilated loops of small bowel with jejunal dominance (Figs. 1 and 2). The patient was admitted into hospital and abdominal ultrasound revealed dilated small bowel loops with preserved peristalsis and the presence of abdominal free fluid, suggestive of mechanical ileus with not affiliated aetiology, as well as a minimal left pleural effusion. TC images showed dilatation of the stomach with liquid levels in duodenal and jejunal loops and found no evidence of either obstructive cause. During his stance at hospital it was performed a gastroscopy showing a pattern of chronic superficial gastritis.

At suspecting Anisakis infestation it was carried out a Prick-test, however, this was negative. The Anisakis specific IgE value was 15.9 kUA/l, considered positive.

The patient improved clinically after the restoration of absolute diet and intravenous fluids. Forty-eight hours later, oral diet was restored getting to normal tolerance. He was discharged three days after admission and remained asymptomatic in subsequent revisions.

Discussion

Diagnosis of *Anisakis* infestation requires surgical or endoscopic detection of the parasite. However, this situation can not be given in most of the cases, so it becomes an underdiagnosed disease. Sometimes it poses a differential diagnosis from several entities which require surgical treatment, but this situation, except when complications happen, is usually solved spontaneously within hours or days. Endoscopic location of *Anisakis* larvae is difficult in the European countries as the main location is ileum, while in Japan the stomach is the most prevalent location.

Several studies have shown great sensitivity of a history of previous raw or undercoocked fish consumption in the 48 hours prior to the instauration of the symptoms. Laboratory tests have not shown to be useful for diagnosis of the disease. Sometimes it can be observed leukocytosis and, more rarely, peripheral eosinophilia. The study of stools is not useful because the larvae fail to evolve into forms with mature reproductive capacity.

The characteristic radiological images, although not specific, are present in a high percentage of cases of intestinal anisakiasis. It can be seen wall thickening, dilatation of the proximal loops in obstructive forms, presence of free fluid and stenosis of the lumen.

In the last years several serological tests have been developed and some of them have great sensitivity and specificity. It should be remembered that the Prick-test may be negative in the first episode of contact because the immune response could be not yet developed. Early studies with monoclonal antibody techniques are yielding encouraging results.

We achieved a clinical diagnosis of Anisakis infestation in a sub-occlusion disease with good outcome. The combined use of anamnesis and physical examination along with radiological and serological test can offer a diagnosis despite not seeing the parasite in an endoscopic study and thus prevent more aggressive methods.

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