

Letters to the Editor

Granulomatous appendicitis as an uncommon cause of abdominal pain. Description of a case

Key words: Granulomatous appendicitis. Acute abdomen. Crohn's disease of the appendix.

Dear Editor,

Granulomatous appendicitis (GA) is an uncommon cause of acute abdomen. Its etiology can be infectious, noninfectious, like in Crohn's disease (CD) or in the case of tumors, or indeterminate. The clinical picture can resemble an acute appendicitis (1-3).

We present the case of a patient of whom we got to know about due to a colonoscopy that was asked for by the Emergency Department.

Case report

This is the case of a 14 year old that arrived to the Emergency Room due to a pain in the right iliac fossa that had been lasting for the last 5 days. He had normal stools and was nonfebrile. He did not refer similar episodes in the past. On examination, the right iliac fossa was painful on palpation, and some muscular resistance was found.

The bloodwork showed a mild leukocytosis with a neutrophilia of 74%. The abdominal ultrasound was informed as compatible with invagination. At this point, the Surgical Services requested a colonoscopy that was complete and allowed us to get a good view of the colonic mucosa. An ileoscopy

was performed and multiple nodular images were seen and biopsied. At the cecum, near the appendicular fold, the mucosa had erythema, nodularity, edema, and the fold was thickened (Fig. 1A). We introduced a biopsy forceps through the lumen but no pus came out with it. The rest of the colonic mucosa was normal.

After these test an abdominal CT was performed showing an evident thickening of the terminal ileum wall in its last 4 cm. Also a soft tissue density image was seen near the ileocecal valve. This image extended until it contacted with another soft tissue density mass in the right iliac fossa. This mass was mainly hypodense and measured 4,3x4,3x5,5 cm. There was also a small amount of free fluid in the pelvis and no other findings were discovered.

A right hemicolectomy was performed due to the acute abdomen, the uncertain diagnosis and the impossibility to rule out a malignant neoplasm in the appendix. In the pathological assessment of the surgical specimen, which showed a greatly thickened appendix, the histopathological diagnosis was that of an evolved GA. This appendicitis had extensive fibrous and scar tissue that extended towards the periappendicular tissue, and the ileum with associated lymphoid follicular hyperplasia, chronic lymphadenitis and focal granulomatous reaction (Fig. 1B).

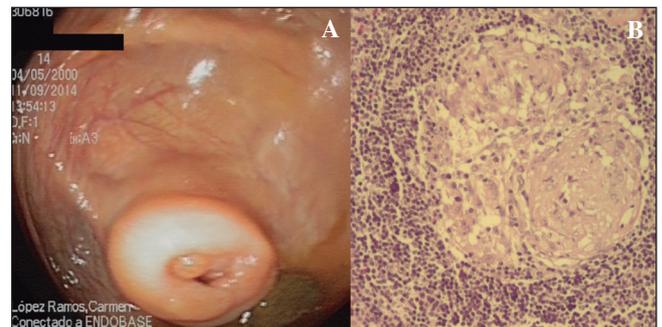


Fig. 1. A. Endoscopic image of the cecal pole. B. Non-necrotizing epithelioid granulomata.

Discussion

Granulomatous appendicitis constitutes less than 2% of all appendectomies performed. The etiology can be infectious (*Yersinia spp*, *Mycobacterium tuberculosis*, *Enterobius Vermicularis* and *Actinomyces spp*), and noninfectious (diverticulitis, CD, foreign body granulomatous reactions, tumors and sarcoidosis) (1-4). CD can affect the appendix and mimic an acute appendicitis. Patients that have been appendectomized and present granulomatous reactions in the pathological study, rarely develop an IBD in other areas of the digestive tract (5-7).

The clinical presentation is similar to an acute appendicitis. The diagnosis by imaging techniques does not show specific features and the abdominal ultrasound can be similar to a normal acute appendicitis. The CT can show a thickened appendix and also and increased density of the surrounding soft tissues (1).

The confirmatory diagnosis is made by pathology and is characterized by the presence of non-necrotizing epithelioid granulomata, activated T cell aggregates and mucosal ulcerations. The surgical treatment is curative, however it is advisable to follow these patients due to the possibility, even though small (5-10%), to develop CD (4-8).

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