

Chronic Appendicitis as a Differential Diagnosis of Chronic Abdominal Pain: Clinical Case

Olga Nidia Montero-Sánchez

Hospital General de Saltillo, Coahuila. México

María Gabriela Pesqueira-Valerio

Hospital General de Saltillo, Coahuila. México

Octavio Javier Trujillo-Cedillo

Hospital General de Saltillo, Coahuila. México

Yadira Irasema Lugo-Guevara

Hospital General de Saltillo, Coahuila. México

Luis Arturo Falcón-Cancino

Clínica Hospital Mérida-APP ISSSTE, Facultad de Medicina -Universidad
Autónoma de Yucatán. México

Guillermo Padrón-Arredondo

Department of Investigation at General Hospital of Playa Del Carmen, Q. Roo.
México

ABSTRACT

Chronic appendicitis represents a rare surgical pathological entity, which is also tricky for first-contact physicians to consider as a differential diagnosis when faced with a patient with abdominal pain. There are currently well-described diagnostic criteria for it. The case of a 24-year-old female patient with no significant medical history presented with a picture of abdominal pain over three weeks of evolution. Moreover, diagnosed by contrast-enhanced computerized axial tomography with appendicitis, an open appendectomy was performed, and the histological examination confirmed the diagnosis of chronic appendicitis associated with fecalith obstruction.

Keywords: Chronic appendicitis, fecalith, chronic abdominal pain.

INTRODUCTION

Acute appendicitis is a surgical condition that frequently occurs in the emergency room, mainly affecting patients between 30 and 50 years old, and can occur at any age. (1) Its diagnosis is generally straightforward. It shows abdominal pain lasting a few hours, affecting the right lower quadrant (McBurney's point), fever, anorexia, nausea, and signs of peritoneal irritation with increased leukocytosis. However, insidious, poorly localized abdominal pain, which also presents a chronic course, will make us immediately rule out a case of appendicitis. It is

essential to evaluate our patient comprehensively since it could be a case of chronic appendicitis. We present the case of a patient with chronic abdominal pain. Her clinical presentation led us to rule out different differential diagnoses until we reached the diagnosis of chronic appendicitis.

CLINICAL CASE

24-year-old female, previously healthy, with the only history of a normal birth two years ago. He presented to the outpatient clinic with a three-week history of colicky abdominal pain in the periumbilical region, radiating to the hypogastrium and right lumbosacral region, 8/10 on the VAS scale, along with nausea and vomiting of gastric content, without aggravating or mitigating factors. He reported going to an external doctor for evaluation. He managed as a condition of urolithiasis treated with paracetamol with improvement in pain, with subsequent performance, three days later, of an abdominal ultrasound, which reported a condition of probable appendicitis.

The patient came to our hospital unit for evaluation by general surgery; however, the patient was asymptomatic with intermittent pain presentation at the time of review without clinical data of an appendicular process or acute abdomen with leukocytes of $10.8 \times 10^3/\mu\text{L}$, Hemoglobin 13.3 g/dL, Platelets $362.7/10^3/\mu\text{L}$, glucose 77 mg/dL, creatinine 0.97mg/dL, negative pregnancy test and non-infectious urine test. The diagnosis of appendicitis is considered unlikely, so a contrast-enhanced computed tomography (CT) is requested to guide the course of action and warning signs.

The patient returns two weeks later with the same intermittent pain, without aggravations or relevant changes since the last visit. The CT scan of the abdomen showed a retrocecal appendix with fecalith inside (Fig. 1).



She was admitted to the operating room electively, macroscopically finding a normal appendix (Fig. 2) of approximately 8 cm, with no signs of an inflammatory process; an induration suggestive of fecalith was palpable in the distal third.



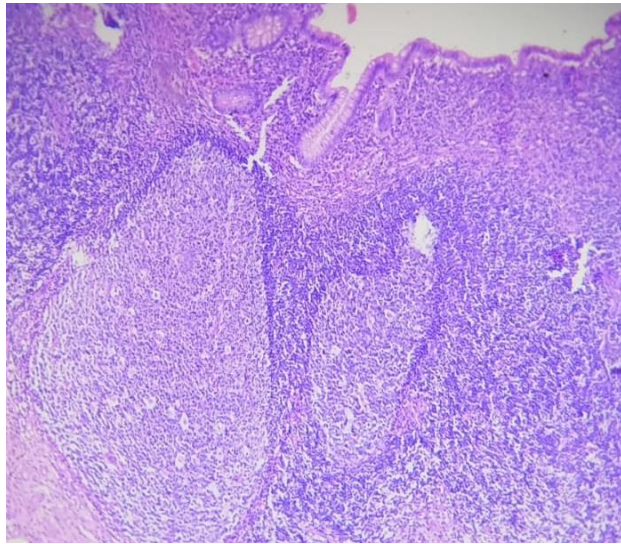
The cecal appendix was outside the surgical field, and the indurated region incised, draining approximately one cc of purulent material (Fig. 3)



Furthermore, it extracted fecalith measuring 0.5cm x 0.5cm (Fig. 4).



The histopathological report confirms the diagnosis of chronic appendicitis associated with fecalith obstruction and lymphoid hyperplasia (Fig. 5).



The patient progresses adequately and is discharged 24 hours after the procedure with follow-up by the outpatient clinic.

DISCUSSION

Chronic appendicitis is a pathology with which doctors are currently unfamiliar and for which a well-defined definition or diagnostic criteria still needs to be used. Some authors define it as a prolonged state of inflammation or fibrosis that presents as abdominal pain >48 hours or intermittent. Others have proposed a series of criteria that still need to be standardized for this condition: 1) persistence of symptoms for more than two weeks, 2) confirmation of chronic inflammation by histopathological study, and 3) cessation of pain after appendectomy is achieved (3). Its etiology is unknown, but it is believed that it may be due to partial obstruction of the appendiceal lumen (1-3).

One must be thorough when dealing with chronic and recurrent abdominal pain, always considering appendicitis as a differential diagnosis. CT remains essential in this type of patient, and although the findings are similar between acute and chronic appendicitis, it will guide us in the diagnosis (4).

The University of L'Aquila conducted a histopathological review of 269 cecal appendages, of which 14.2% presented evidence of chronic appendicitis. The histopathological study of chronic appendicitis included leukocyte infiltration by lymphocytes, histiocytes, plasma cells in the lamina propria, hyperplasia of lymphoid tissue, and fibrosis (1). This case coincides with the reported incidence of chronic appendicitis reported in the literature (1-1.5%) (5, 6).

In your casuistic, Kanat et al. (7) find 207 appendectomies. The data of 182 of these patients could be accessed fully, and we could get answers to the criteria we thought. Only eight patients screened were likely to be diagnosed with chronic appendicitis in the preoperative period. CA was found in one of the eight patients (12.5%) who underwent surgery after a preliminary

diagnosis of CA. Two patients were reported as malignant (25%), three patients (37.5%) as reactive lymphoid hyperplasia, and one patient as peri appendicitis (12.5%). Bleeding and congestion were reported in the last patient (12.5%). On the other hand, the diagnosis of chronic appendicitis is done by pathological examination. It may not always be possible to consider "chronic appendicitis" as a preliminary diagnosis.

The presence of appendicolith may lead to diagnostic confusion, and it should differentiate from other conditions for calcification in right iliac fossae like renal lithiasis, ureteral lithiasis, vesical calculus, gallstone ileus, phlebolith, ovarian tumors, lithopedion, calcified lymph nodes, foreign bodies and radiological artifact and follicular hyperplasia (8, 9).

The clinical features of chronic appendicitis are similar to those of acute appendicitis but with a longer duration, less intensity, and less pain. They usually persist longer than the typical 1-2 days in acute appendicitis, especially for more than seven days of evolution, even without significant clinical, laboratory, or imaging inflammation data. On several occasions, the clinical manifestations with episodic and recurrent pain may extend for weeks, months, or years. The most prolonged reported duration of chronic abdominal pain associated with recurrent appendicitis was 18 years. The clinical picture may or may not present with fever or associated with systemic symptoms. The diagnosis of recurrent or chronic appendicitis can be considered in all cases of long-standing abdominal pain, although it is often made by exclusion (10).

CONCLUSION

Although chronic appendicitis is a rare condition, it is essential to consider it in patients with chronic abdominal pain of uncertain etiology. CT was suggested as the preferred imaging study in these patients since a small percentage could suffer from chronic appendicitis, requiring surgical treatment to avoid subsequent complications.

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