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Case Report

Double acute appendicitis: cecal and epiploic; literature review of a case report

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ABSTRACT

Acute cecal appendicitis and appendagitis are two entities due to the inflammation of the cecal and epiploic appendix respectively. A case of a 34-year-old woman is presented, who is admitted for abdominal pain. Initial blood test and ultrasonography were not conclusive, subsequently with clinical deterioration, surgical intervention was required which noted acute appendicitis and appendicitis that were removed. This is an extremely unusual case, since the simultaneous presentation of these two entities has not been widely described and demonstrates the importance of exploring the abdominal and pelvic cavity in patients with suspected diagnosis of acute appendicitis.

Keywords: Acute appendicitis, Acute epiploic appendagitis, Abdominal pain, Case report

INTRODUCTION

Acute appendicitis results from the inflammation of the vermiform appendix and is considered one of the most frequent surgical emergencies in the world; on the other hand, the epiploic appendages are fatty appendages that originate in two rows parallel to the external surface of the three longitudinal muscular bands of the large intestine, the inflammation of these results in an infrequent entity known as appendagitis.[1,2]

We present the clinical case of a 34-year-old woman with initial suspicion of acute appendicitis, but the two entities mentioned above were found simultaneously during the surgical intervention.

CASE REPORT

A 34-year-old female with no significant medical history, allergic to penicillin, with an 8-hour history consisting of localized abdominal pain in the mesogastrium radiating to the hypogastrium, associated with abdominal distension, nausea, and emesis.

On physical examination, tenderness in the colic setting, doubtful McBurney's sign, no abdominal defense, negative Giordano. Laboratories with leukocytosis without neutrophilia, non-pathological urinalysis, negative pregnancy test. Initial abdominal ultrasound with a finding of non-obstructive bilateral nephrolithiasis, inconclusive for an acute abdominal process. It was decide to maintain clinical observation.

Initially, she presented improvement in symptoms tolerating the oral route and decreased abdominal pain, however, later she presented deterioration with tachycardia, tachypnea and signs of generalized peritoneal irritation. Control abdominal ultrasound with findings suggestive of generalized peritonitis, with collections in the right parietocolic leak and pelvic cavity with an approximate volume of 350 cc.

She was taken to surgery, initially by laparoscopy with a finding of 4-quadrant fibrino-purulent peritonitis in addition to acute appendagitis (Figure 1), and it was decided to convert to laparotomy. Generalized peritonitis drainage is performed, observing the cecal appendix in the pelvic and transverse position to the sigmoid colon, gangrenous in its entirety with an appendicular base in good condition, without perforations; also, epiploic appendix in sigmoid colon rotated 720 ° (Figure 2), necrotic. Given the findings, it was concluded with a cecal and epiploic appendectomy.

Figure 1: Exploratory laparoscopy in which acute appendagitis is evident, its pathological study revealed area of hemorrhage.

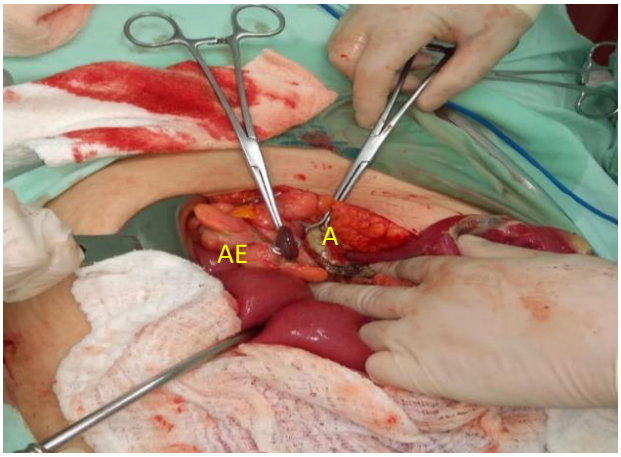

**Figure 2: Median laparotomy.
A-cecal appendicitis. AE: acute appendagitis.**

The patient required 5 more surgeries due to infection of the surgical site and abdominal sepsis, after which she presented a good evolution and was discharged 43 days after admission.

DISCUSSION

Acute appendagitis is a very rare condition secondary to inflammation of an epiploic appendix and whose pathophysiology includes venous or arterial thrombosis, torsion or primary inflammation, triggering a variety of symptoms such as acute non-migratory abdominal pain, vomiting, diarrhea, satiety, and weight loss.[3]

A diagnostic approach based solely on symptoms is virtually impossible, which is why historically it has been performed by laparoscopy, however the radiological methods commonly used for an initial approach are computed tomography of the abdomen and ultrasonography.[3] One has been described. incidence of 3 to 7.1% in patients with suspected diverticulitis and 0.3 to 1% when appendicitis is suspected.[4]

By ultrasonography, appendagitis has been described as a hyperechoic mass near the colonic wall, with a hypoechoic border in up to 93% of cases. Using doppler, it is possible to distinguish between an ischemic or inflammatory etiology.[5] The classic description in abdominal tomography is an ovoid lesion with a density of fatty tissue, 1-4 cm, adjacent to the antimesenteric border of the colon; Sometimes it is possible to observe the hyperdense ring sign consisting of a thin annular hyper density, 2-3 mm thick that represents the inflamed visceral peritoneum surrounding the epiploic appendix, and the central point sign or dot sign as a punctate or hyperdense linear image in the center of the lesion that represents thickened or thrombosed central vessels.[6,7] In the present case, no findings suggestive of appendagitis were reported in the two ultrasound scans performed on the patient, and no CT of the abdomen was performed due to its unavailability.

Treatment of appendagitis will depend on the existence of complications and varies from conservative to surgical management.[3]

On the other hand, acute appendicitis, as already mentioned, is one of the most frequent surgical emergencies. Its pathophysiology consists of fecalithic luminal obstruction, lymphoid hyperplasia, impacted fecal matter or, rarely, tumors. Recent theories also include genetic and environmental factors; being able to trigger abdominal abscesses, ileus, peritonitis or even death.[1]

Risk scores based on different findings on physical examination and paraclinical results are used for diagnosis, among which the most widely used is the Alvarado score. Diagnostic images such as CT or abdominal ultrasound are also widely used. Its treatment is considered surgical despite the recent and controversial conservative management.[1]

In the present case, both cecal appendicitis and appendagitis coexisted, producing abdominal pain, requiring resection in the same surgical time; Many authors have described appendagitis as a differential diagnosis of abdominal pain, however to our knowledge only Kumar et al and Savage et al describe a picture of acute appendicitis with acute appendicitis and none

describe the finding of these entities in the same surgical procedure.[8,9]

As Savage et al conclude, it is uncertain whether they are related or coincident inflammatory processes, however, the report of their co-existence reaffirms the need to consider other abdominal inflammatory processes in patients with suspected acute appendicitis as well as well as the importance of exploring the abdominal and pelvic cavity if it is technically possible when performing appendectomies.[9]

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