ECRONICON OPEN ACCESS

EC GASTROENTEROLOGY AND DIGESTIVE SYSTEM

Case Report

Epiploic Appendagitis: The Forgotten Differential Diagnosis for Acute Abdomen

Carolina Oldoni[1]*, Cassio Henrique Taques[1], Júlia de Freitas Azzolini[2], Júlia de Martino Cruvinel Borges[3] and João Guilherme Boaretto Guimarães[4]

[1]Universidade Federal do Paraná - Curitiba, Paraná, Brazil

[2]Hospital Universitário Cajuru - Curitiba, Paraná, Brazil

[3]Radiologist, Hospital Cruz Vermelha Brasileira - Curitiba, Paraná, Brazil

[4]Chief of the Department of Radiology, Hospital Hospital Cruz Vermelha Brasileira - Curitiba, Paraná, Brazil

***Corresponding Author:** Carolina Oldoni, Universidade Federal do Paraná - Curitiba, Paraná, Brazil.

Received: August 28, 2018; **Published:** October 01, 2018

Abstract

Introduction: Epiploic appendagitis (EA) occurs due to ischemic lesions of the epiploic appendage such as torsion, strangulation or thrombosis. The appendices are projections of peritoneum of small size present mostly in the antimesenteric serosa of the transverse and sigmoid colon. In this report, we show a case of epiploic appendagitis, highlighting the main image findings.

Case Report: A 63-year-old male patient presented with left flank pain, with one-day onset, without irradiation or associated complaints. An abdominal CT scan provided a suspicion for diverticulitis. The scan was able to capture representative images of the acute appendagitis - a lesion with fat density measuring about 23 mm located in the descending/sigmoid colon, associated with densification of adjacent adipose planes. The patient received symptomatic treatment due to the benignity of the condition, with instructions to return should red flags raise and symptoms persist or worsen.

Discussion: The diagnosis is made by clinical history associated with a CT scan of the abdomen. This scan has excellent accuracy in the diagnosis of the condition, evidencing an oval and lobulated mass, in a paracolic region, accompanied by a hyperdense halo that reflects the inflammation in the adjacent serosa.

Conclusion: The differential diagnosis of appendagitis should be included in acute abdomen conditions. Situations such as the ones found in EA patients, although rare, demonstrate the importance of having familiarity with the condition, in order to accurately diagnose appendagitis. Differential diagnosis with diverticulitis, ruptured ovarian cyst, among others, is crucial for the correct management of EA.

Keywords: *Epiploic Appendagitis; Abdomen; Epiploic Appendage*

Introduction

Epiploic appendagitis (EA) occurs due to ischemic lesions of the epiploic appendage such as torsion, strangulation or thrombosis. The appendices are projections of peritoneum of small size present mostly in the antimesenteric serosa of the transverse and sigmoid colon [1-3].

Although it is a rare condition, EA is a more frequent condition in males and has a benign and self-limiting course. In obese patients, appendages are usually bulky and larger in size. Ischemia of these appendages evolves into inflammatory clinical signs such as acute abdominal pain, throughout the large bowel. EA also has the identifying feature that it combines with significant, very well localized pain

with elevated temperature and elevated WBC count. Apart from fever, other symptoms such as hyporexia, nausea, and vomiting may be associated. Due to a lack of specificity on clinical signs, differential diagnosis is essential to avoid unnecessary interventions [4].

Clinical examination allows for a diagnosis when complemented by Computed Tomography (CT) scan. Treatment is conservative, done with anti-inflammatory and pain reliever drugs. Complications are rare, but when they are present, require surgical intervention. In this report, we show a case of epiploic appendagitis, highlighting the main image findings [1-3].

Case Report

A 63-year-old male patient presented with pain in the left flank, with one-day onset, without irradiation or associated complaints. Bowel movements and elimination of flatus were relieving pain factors, but the pain returned right afterward each time. Atenolol, rosuvastatin, clopidogrel, and enalapril were the drugs the patient was using at the time of onset. Long-standing cholecystectomy and herniorrhaphy had been performed, in addition to having a stent placed due to acute myocardial infarction two years ago. At physical examination, a globular and flaccid abdomen was found to be painful on palpation in the left flank without signs of peritonitis. Bowel and gastric sounds were present without masses or visceromegaly. Costovertebral angle tenderness sign was negative. The patient exhibited no fever, no pallor or icterus, no cyanosis or shortness of breath, and was adequately hydrated.

The first tests of choice for this patient were urinalysis (UA) and ultrasound (USG) of the urinary tract given the suspicion for nephrotic colic. The findings of these two tests were negative. After that, the patient received pain relief medication, and then underwent an abdominal CT scan given a suspicion for diverticulitis. The scan was able to capture representative images of the acute appendagitis - a lesion with fat density measuring about 23 mm located in the descending/sigmoid colon, associated with densification of adjacent adipose planes (Figure 1). The patient received symptomatic treatment due to the benignity of the condition, with instructions to return should red flags raise and symptoms persist or worsen.

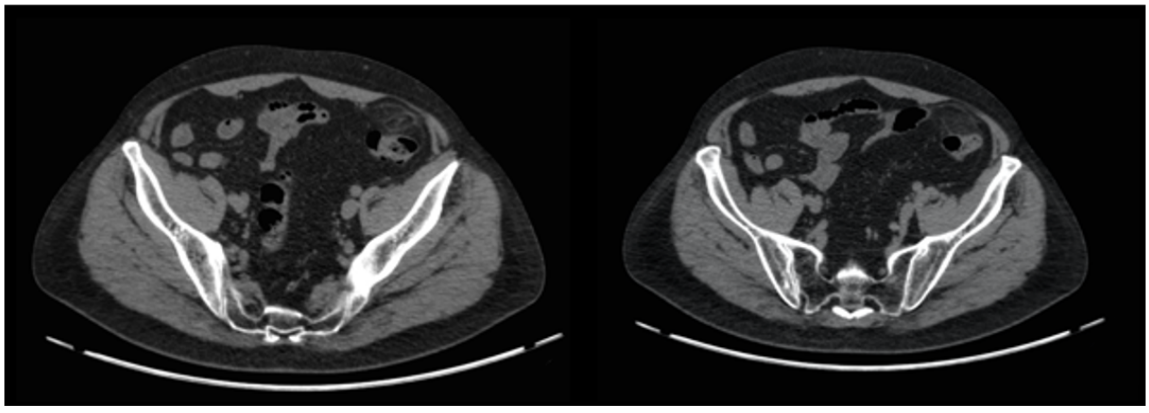

Figure 1: *CT of the abdomen with double-oval image with fat density measuring about 23 mm located in the descending/sigmoid colon, associated with densification of adjacent adipose planes.*

Discussion

EA is defined as a thrombotic, twisting of the venous drainage or strangulation of the epiploic appendages. These are small peritoneal sacs bathed in adipose tissue. Generally, they are distributed along the rectum and colon at the antimesenteric border, mainly in sigmoid and transverse, with sizes ranging from 0.5 to 5 cm [1].

EA is a rare clinical condition, with benign, self-limiting course and prevalence is yet unknown. It is estimated that 2 to 8% of the suspected cases of diverticulitis, or a smaller portion of appendicitis, are in fact cases of epiploic appendagitis. It affects men more frequently (about five times more) than women, with a higher incidence between the fourth and fifth decades of life. Obese patients tend to have multiple apoptotic appendages, usually of longer length [1-4].

The epiploic appendages are vascularized by two arteries and a vein, terminally, which increases susceptibility to spontaneous twisting and infarction. As a result of ischemia, there is an inflammation of these appendices, which causes the clinic of the persistent acute abdominal pain of moderate intensity. The location of the abdominal pain could be on either the left or on the right, given the location of the colon. On this patient case, however, it was localized to the lower left quadrant. More rarely, the patient may report mesogastric or hypogastric pain and signs of peritoneal irritation. Some cases may include constitutional symptoms such as increased body temperature, nausea, vomiting, and hyporexia. It is of great importance that physicians are alert to the presentations of this condition in order to make a differential diagnosis to other intraperitoneal pathologies, such as appendicitis, diverticulitis, ovarian twisting, ectopic pregnancy, ruptured ovarian cyst, cholecystitis, ulcerative colitis among others [1,4,5].

Laboratory tests often show no alterations and may be accompanied by increased leukocytes, neutrophils, and C-reactive protein. The diagnosis is made by clinical history associated with a CT scan of the abdomen. This scan has excellent accuracy in the diagnosis of the condition, evidencing an oval and lobulated mass, in a paracolic region, accompanied by a hyperdense halo that reflects the inflammation in the adjacent serosa. Also, it may present fat density, increase in peritoneal thickness and attenuation of periapendicular fat. The tomographic findings may last up to 6 months [1,4].

It is also possible to diagnose EA by using USG or magnetic resonance imaging (MRI), which have a higher cost, are operator-dependent and have low sensitivity. The USG may reveal a hyperechoic, lobulated and non-compressible mass. The inflammatory mass, in some cases, presents with perilesional edema, demonstrated by a hypoechoic peripheral halo and increased echogenicity of adjacent fat [1,4].

The treatment is conservative, based on analgesics and anti-inflammatory, no need for hospitalization. A surgical procedure is not indicated, but in some cases, the patient undergoes surgery after an erroneous diagnosis is made. In situations that lack imaging resources, an exploratory laparoscopy can also be used for diagnosis and treatment [1,3,5].

In this case report, the patient remained asymptomatic and without complications in the follow-up. Complications include colonic abscesses and bowel obstructions. Although rare, they would only then justify urgent surgical treatment [6].

Conclusion

The differential diagnosis of appendagitis should be included in acute abdomen conditions. Situations such as the ones found in EA patients, although rare, demonstrate the importance of having a familiarity with the condition, in order to accurately diagnose appendagitis. Besides, establishing the differential diagnosis with diverticulitis, ruptured ovarian cyst, among other diseases, is crucial for the correct management of EA. The well-established CT scan not only confirms the diagnosis of epiploic appendagitis, it may also be a determinant factor in the usually conservative treatment.

Bibliography

1. Freitas GP., *et al*. "Apendagite Epiploica: aspectos clínicos e radiológicos". *Arquivos de Gastroenterologia* 45.2 (2008): 163-165.

2. Eberhardt SC., *et al*. "Radiology of epiploic appendages: acute appendagitis, post-infarted appendages, and imagining natural history". *Abdominal Radiology* 41.8 (2016): 1653-1665.

3. Sousa D., *et al*. "Apendagite epiplóica-diagnóstico diferencial de apendicite aguda". *Revista Portuguesa de Cirurgia* 30.36 (2016): 29-32.

4. Martinez CA., *et al*. "Primary epiploic appendagitis". *Journal of Coloproctology* 33.3 (2013): 161-166.

5. Appendagitis E., *et al*. "Apendagite Epiplóica: Tratamento Conservador". *Revista Brasileira de Coloproctologia* 28.3 (2013).

6. Alves GR., *et al*. "Epiploic Appendagitis: a challenging imaging diagnosis". *European Journal of General Medicine* 9.4 (2013): 283-285.

Volume 5 Issue 10 October 2018