

Acute Epiploic Appendagitis: A Rare Case Report

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Abstract Acute epiploic appendagitis is a relatively rare cause of lower abdominal pain it clinically mimics other causes of acute abdomen that require surgical intervention such as acute diverticulitis or appendicitis. Here, we report a case of a 33-year-old male who presented with an acute left lower abdominal pain. Awareness of such a clinical condition with its characteristic imaging findings is important to avoid unnecessary surgical intervention.

Keywords: abdominal computed tomography scan, abdominal pain, epiploic appendagitis, acute abdomen

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1. Introduction

Epiploic appendagitis is a rare clinical condition resulting from torsion and inflammation of an epiploic appendix that lead to localized, usually acute abdominal pain. It usually has a good prognosis after correct diagnosis. Radiological studies, particularly enhanced abdominal computed tomography (CT) scan, have a critical role in reaching the correct diagnosis and sparing the patient unnecessary hospitalization or surgery in uncomplicated cases. The true incidence of epiploic appendagitis is not known. However, epiploic appendagitis has been reported in 2 to 7 percent of patients who were initially suspected of having acute diverticulitis and in 0.3 to 1 percent of patients suspected of having acute appendicitis [1]. Epiploic appendagitis occurs most commonly in the second to fifth decades of life with a mean age at diagnosis of 40 years. The incidence of epiploic appendagitis has been reported to be up to four times higher in men as compared with women [2,3]. In this case report we shall highlight the diagnostic dilemma associated with this pathology and the important role of imaging in reaching the final diagnosis.

2. Case Description

A 33 year old male, previously healthy, presented to the emergency department with sudden onset left side abdominal pain, it was mainly localized to the left lower quadrant. He described the pain as being sharp in nature and severe in intensity, it was non radiating. It started after he had his lunch meal. It was exacerbated by deep inspiration and would feel better when bending forward. There was no associated symptoms such as nausea, vomiting or bloody stool. He denied any hematuria, fever or chills. He never had appendicitis or diverticulitis and

his surgical history was unremarkable.

During the physical examination, the patient lay comfortably on the bed with slight pain. He was not tachycardic, tachypnic or febrile, and abdominal examination was positive only for localized rebound tenderness in the left lower quadrant. Laboratory result did not show leukocytosis, no neutrophilia or any features suggestive of severe inflammation.

The patient underwent further investigations where a CT of the abdomen without contrast was done. It showed a non-specific focal stranding in the proximal descending colon just below the splenic flexure with the presence of a subtle oval area that has central density and surrounding edema, the appearance of which was suggestive of epiploic appendagitis. The appendix was visualized and appeared normal, and the rest of the study was unremarkable (Figure 1, Figure 2).

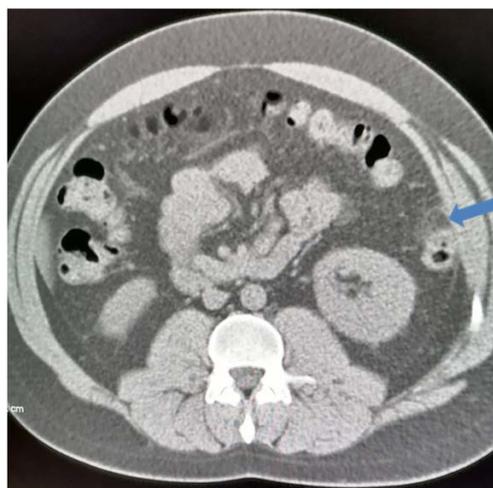


Figure 1. Axial computer tomography scan of the abdomen showing a non-specific focal stranding in the proximal descending colon just below the splenic flexure with the presence of a subtle oval area that has central density and surrounding edema (Arrow)

The patient was started on a nonsteroidal anti-inflammatory and was given a follow up appointment in the gastroenterology clinic after five days, he had an uneventful course and his symptoms improved. He was continued on a ten day course of ibuprofen 400 mg three times daily with proton pump inhibitor coverage.



Figure 2. Coronal computer tomography scan cut showing the same findings (Arrow)

3. Discussion

Epiploic appendagitis is a rare clinical entity that can be the cause of an acute abdomen it can easily mimic other causes of acute abdomen such as acute appendicitis or diverticulitis. By definition it is an ischemic infarction of an epiploic appendage caused by torsion or spontaneous thrombosis of the epiploic appendage central draining vein. Epiploic appendages are small outpouchings of fat-filled, serosa-covered structures present on the external surface of the colon projecting into the peritoneal cavity. Each appendage encloses small branches of the circular artery and vein that supply the corresponding segment of the colon. On average, the adult colon has approximately 50 to 100 appendages. Epiploic appendages occur along the entire colon but are more common and larger in the transverse and sigmoid colon. [1]

The pathogenesis is thought to be due to torsion of large and pedunculated appendix epiploicae, or spontaneous thrombosis of the venous outflow, resulting in ischemia, and necrosis [4]. The clinical presentation is that of acute abdomen with sudden onset, the pain is in the left abdomen in 60 to 80 percent of patients but has also been reported in the right lower quadrant [5], as discussed earlier with our patient the pain was localized to the left lower quadrant thus the presentation helped to exclude acute appendicitis to a certain extent. Localized abdominal tenderness and guarding are usually found on physical examination. The leukocyte count can be normal or slightly elevated [6].

Given the nonspecific presentation and the lack of distinctive clinical features, the diagnosis of epiploic appendagitis without imaging can be challenging. Additional imaging such as abdominal ultrasound or CT is usually

necessary to reach a final diagnosis. Typical CT finding is a 2 to 3 cm, oval-shaped, fat density, paracolic mass with thickened peritoneal lining and periappendageal fat stranding [7].

Epiploic appendagitis is a benign and self-limiting condition. Complete resolution without surgical intervention usually occurs between 3 to 14 days [8]. The risk of recurrence has not been described but is probably very low. Rarely, inflamed appendages can adhere to the abdominal wall thus predisposing to intestinal obstruction and intussusception [9]. Inflamed and necrotic appendages can also rarely progress to abscess formation.

Conservative management with oral anti-inflammatory medication is currently considered the standard management once an accurate radiological diagnosis has been established [10]. Antibiotics or surgical treatments are rarely warranted and surgical intervention (laparotomy or laparoscopic) is kept for complications such as inflammation-induced adhesions, secondary abscess, or intestinal obstruction. As discussed earlier our patient had a benign course and clinically improved with use of oral anti-inflammatory medications.

4. Conclusions

This case report highlights a relatively rare cause of acute abdomen which in majority of cases is self limiting, clinical awareness should be raised to have this condition as a differential diagnosis in a patient presenting with acute abdomen. We also emphasize the important clinical role of CT imaging in reaching the final diagnosis in such challenging cases.

Declarations

Availability of Data and Materials

All data are within the article.

Authors Contribution

We acknowledge that all the authors contributed to this case report whether in data gathering or editing

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Ethics Approval and Consent to Participate

Consent was taken from patient's parents and approval from hospital ethical committee.

Competing Interests

The authors declare that they have no competing interests.

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Not applicable.

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