



Primary Epiploic Appendagitis: A Rare Etiology of Acute Abdominal Pain

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ABSTRACT

Torsion of an epiploic appendage (or epiploic appendagitis) is a rare condition that occurs mainly in adults between 20 and 50 years of age. The incidence of this pathology is relatively low and remains poorly documented due to its rarity and benign course. It accounts for approximately 2–7% of patients hospitalized for suspected appendicitis or sigmoid diverticulitis. We report a case of epiploic appendagitis and describe its clinical, radiological, and therapeutic features.

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KEYWORDS:

Epiploic appendagitis, imaging, medical treatment.

INTRODUCTION

Torsion of an epiploic appendage (or epiploic appendagitis) is a rare condition that mainly affects adults between 20 and 50 years of age. The true incidence of this pathology is not well established and ranges from 2 to 7% among patients hospitalized for suspected appendicitis or sigmoid diverticulitis. Through this case report and a review of the literature, we aim to highlight the clinical and therapeutic aspects of this condition.

PATIENT AND OBSERVATION

A 60-year-old woman, followed for ileocolic Crohn's disease for 19 years and treated with azathioprine (Imurel®), with a history of nephrectomy for renal neoplasia six years earlier, was admitted for left iliac fossa and hypogastric pain evolving for seven days. There was no fever, vomiting, bowel habit disturbance, Koenig's syndrome, or urinary symptoms. On physical examination, her temperature was 37.3°C, with tenderness in the left iliac fossa. The remainder of the abdomen was soft, non-distended, and painless. Laboratory tests revealed a white blood cell count of 9,200/mm³, hemoglobin of 11 g/dL, and C-reactive protein of 10 mg/L. Urine analysis was negative. Abdominal ultrasound showed a heterogeneous hyperechoic mass measuring 29 × 13 mm

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with a necrotic center. Abdominal CT scan revealed thickening of an epiploic appendage in the left iliac fossa measuring 27 × 22 mm, associated with increased density of the surrounding mesenteric fat, suggestive of epiploic appendagitis in the left iliac fossa (Figure 1). The patient was treated with analgesics. The clinical course was favorable, with improvement of symptoms within two weeks.

DISCUSSION

Primary epiploic appendagitis is a benign and self-limiting inflammation of the epiploic appendages. It is a rare cause of acute abdominal pain in adults [1]. The first description of this entity was reported by Lynn et al. in 1956 [2]. The incidence of this condition is not precisely known and ranges from 2 to 7% among patients hospitalized for suspected appendicitis or sigmoid diverticulitis. However, its prevalence is underestimated due to frequent underdiagnosis. It predominantly affects adults between 20 and 50 years of age, with a slight male predominance. Epiploic appendages are subperitoneal fatty structures measuring between 0.5 and 5 cm in length (mean 3 cm). They are distributed along the colon and are absent from the rectum. Their most frequent locations are, in descending order, the rectosigmoid junction (57%), ileocecal region (26%), ascending colon (9%), transverse colon (6%), and descending colon (2%). In our case, the localization was the left iliac fossa. The physiological role of epiploic appendages remains unclear [3,4]. Their limited vascular supply and pedunculated morphology predispose them to torsion, ischemia, and inflammation, collectively referred to as epiploic appendagitis. The clinical presentation is nonspecific, typically characterized by localized abdominal pain that may

Cheikh Baye A.L. et al, Primary Epiploic Appendagitis: A Rare Etiology of Acute Abdominal Pain

mimic acute appendicitis or diverticulitis. Associated symptoms such as bowel habit disturbances, nausea, vomiting, or fever are uncommon. Laboratory tests may show mild leukocytosis. Given this nonspecific presentation, epiploic appendagitis is rarely suspected clinically, highlighting the importance of imaging. Ultrasound typically reveals a hyperechoic fatty nodule surrounded by a hypoechoic rim, located anteriorly and adjacent to a normal colon. Contrast-enhanced abdominal CT scan is the diagnostic modality of choice. It demonstrates a hypodense nodular lesion adjacent to the colonic wall, surrounded by a hyperdense rim corresponding to inflamed serosa [4]. Diagnostic laparoscopy may be considered when CT scan is contraindicated, unavailable, or when diagnostic uncertainty persists. Laparoscopy reduces abdominal wall morbidity compared to laparotomy and shortens hospital stay [5,6]. It allows rapid diagnosis and, if necessary, treatment of the lesion while avoiding open surgery. Treatment of epiploic appendagitis is conservative, based on analgesics

(paracetamol) and nonsteroidal anti-inflammatory drugs for approximately ten days, as in our case. Symptoms usually resolve spontaneously within one week [7].

CONCLUSION

Epiploic appendagitis is a benign condition that is often difficult to diagnose due to its clinical presentation, which can mimic acute appendicitis or diverticulitis. It is usually caused by torsion of an epiploic appendage, leading to localized inflammation and sometimes acute lower abdominal pain. Diagnosis relies primarily on imaging studies, particularly ultrasound and computed tomography, which allow visualization of inflammation or torsion of the epiploic appendages. Treatment is generally conservative, using analgesics and anti-inflammatory drugs for pain control. Surgical management is rarely required and reserved for complicated cases with persistent pain or complications. In most cases, the clinical course is favorable, and the prognosis is excellent.



(A) CT scan showing a thickened epiploic appendage in the left iliac fossa measuring 27 × 22 mm.
(B) Perilesional mesenteric fat stranding consistent with inflammatory changes.

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