

Acute epiploic appendagitis: A rare cause of acute abdomen and a diagnostic dilemma

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ABSTRACT

Acute epiploic appendagitis is a relatively rare cause of lower abdominal pain that clinically mimics other acute abdomen conditions that require surgery such as acute diverticulitis or appendicitis. Here, we report a case of a 50-year-old lady who presented with an unusual lower abdominal pain. Awareness of such a clinical condition with its characteristic imaging findings is important to avoid costly hospitalization, unnecessary antibiotic courses, and the morbidity and mortality associated with surgical procedures.

Key words: Abdominal computed tomography scan, abdominal pain, epiploic appendagitis

INTRODUCTION

Epiploic appendagitis is an uncommon clinical condition resulting from torsion and inflammation of an epiploic appendix that lead to localized abdominal pain. Usually, it has a smooth clinical scenario after a correct diagnosis. The vagueness of the clinical presentation usually accounts for the difficulty of diagnosing this pathology. Radiological studies, particularly enhanced abdominal computed tomography (CT) scan, have a valuable role in reaching the right diagnosis and sparing the patient unnecessary hospitalization or surgery in uncomplicated cases.

CASE REPORT

A 50-year-old female who is known to have noninsulin dependent diabetes mellitus, hypertension and dyslipidemia presented to the Emergency Department complaining of localized, left the lower abdominal pain of a day's duration. The pain was acute on the onset, constant, and of increasing severity. It was partially relieved by over-the-counter analgesics. She denied fevers, chills,

nausea, vomiting, or anorexia or symptoms suggestive of urinary tract infection. She had never had appendicitis or diverticulitis. Her past surgical history was positive only for knee surgery.

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

The patient was referred to the radiology department with a concern for diverticulitis. Contrast-enhanced CT of the abdomen and pelvis showed a well-defined rounded fat density attached to the anti-mesenteric aspect of the distal part of the descending colon measuring 2.8 cm × 1 cm. This feature was suggestive of epiploic appendagitis [Figures 1 and 2]. The appendix was visualized and appeared normal, and the rest of the study was unremarkable.

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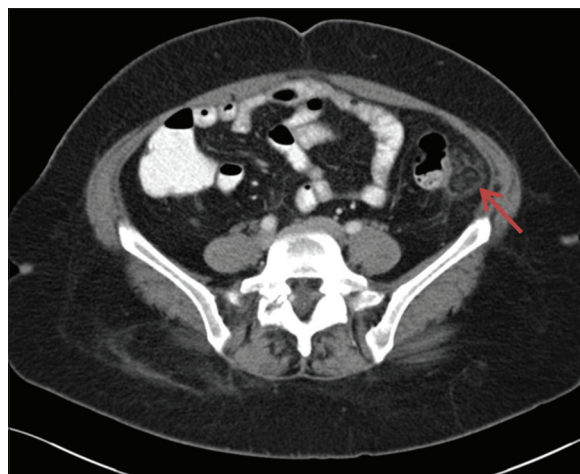


Figure 1: Axial computer tomography scan with double-contrast image of the abdomen showing fat-density ovoid structure adjacent to the descending colon, measuring 2.8 cm × 1 cm in diameter with thin high-density rim (1–3 mm thick) associated with surrounding inflammatory fat stranding, and thickening of the adjacent peritoneum. Presence of central hyperdense dot representing the thrombosed vascular pedicle

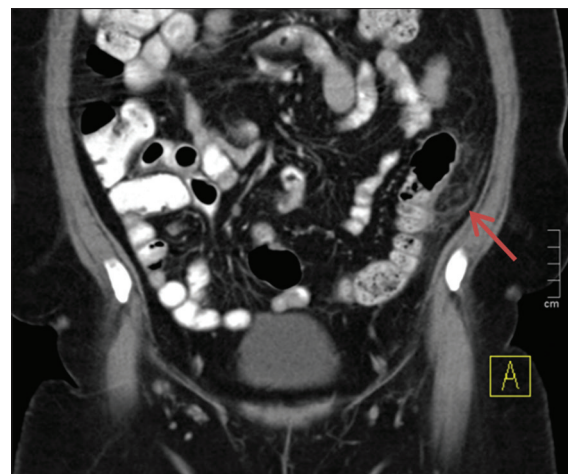


Figure 2: Coronal computer tomography scan cut showing the same findings

The patient was admitted to the surgical ward and started on a liquid diet, a nonsteroidal anti-inflammatory drug, an antibiotic, and was kept for observation for a couple of days and discharged in good condition. The patient was followed in the outpatient clinic once with the uneventful course.

DISCUSSION

Epiploic appendagitis is a rare clinical entity that can be the cause of an acute abdomen and may be easily misdiagnosed as acute appendicitis or diverticulitis. The condition can occur at any age, and there is a slight propensity for males over females.^[1]

Epiploic appendagitis merely denotes inflammation of one or more of the appendices epiploicae. These are small, serosa-covered fat pads measuring from 0.5 cm to 5 cm long and 1–2 cm wide attached to the outer surface of the colonic wall. There are approximately 100 appendages scattered throughout the peritoneal cavity^[2,3] distributed along the large bowel with variable frequency: Rectosigmoid junction 57%, ileocecal region 26%, ascending colon 9%, transverse colon 6%, descending colon 2%.^[4-6]

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 pain is usually localized to the left or right lower abdominal quadrant, mimicking diverticulitis or appendicitis. The abdominal pain is often rapid in onset and exacerbated by movement. In one study, all the patients presented with

abdominal pain within hours up to 1-week, and the majority did not have any associated symptoms such as fever, anorexia, nausea, vomiting, diarrhea, or constipation.^[7] Localized abdominal tenderness and guarding are usually found on physical examination. The leukocyte count can be normal or slightly elevated.^[7,8]

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 establish the diagnosis. Historically, the diagnosis of epiploic appendagitis was primarily surgical, but advances in radiological techniques made possible the first report of epiploic appendagitis on CT scan in 1986.^[9] Pathognomonic CT findings are a 1–4 cm oval-shaped fat density lesion surrounded by inflammatory changes.^[10] Thickening of the parietal peritoneum wall can sometimes be observed. These radiographic changes can last for weeks after the initial diagnosis.^[11]

Epiploic appendagitis is generally a self-limiting disease, with patients spontaneously recovering within 7–30 days.^[2] Conservative management with oral anti-inflammatory medication is currently considered the standard management once an accurate radiological diagnosis has been established.^[2] 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 occlusions^[1,12] or doubtful cases^[2] or recurrence of symptoms with the conservative management.^[1]

CONCLUSION

Our aim was to increase clinical awareness by presenting a rare etiology of localized abdominal pain which can easily

mimic the clinical presentation of other common causes of the acute abdomen such as acute appendicitis and diverticulitis. It was also to emphasize the importance of using the CT scan to diagnose vague clinical presentation, which would eventually help to avoid unnecessary surgery and hospitalization.

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Conflicts of interest

There are no conflicts of interest.

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