Eiploic appendagitis: a non-surgical cause of acute abdomen

Karolina Akinosoglou, Pantelis Kraniotis, Konstantinos Thomopoulos, Stelios F. Assimakopoulos

University Hospital of Patras, Patras, Greece

Two patients, a 53-year-old man and a 27-year-old woman, presented at the Emergency Department of our hospital with symptoms of acute abdomen without concomitant fever. They both complained of severe acute abdominal pain localized at the right and left lower quadrants respectively, worsening during the last couple of hours, accompanied by moderate nausea. Rebound tenderness was present in the right and left lower abdominal quadrants respectively, with absence of other pathological findings on physical examination. In this setting our diagnostic thought was guided to the possibility of acute appendicitis in the first patient and acute diverticulitis, pelvic inflammatory disease or ruptured ovarian cyst in the second one. Laboratory tests were unremarkable. Both patients underwent contrast-enhanced abdominal computed tomography (CT) scan (Fig. 1A-D), which established the diagnosis of primary epiploic appendagitis (EA). Patients were administered a single dose of non-steroid anti-inflammatory drug intramuscularly with significant clinical improvement and were discharged from the Emergency Department with a short course of ibuprofen and advice to seek medical attention if symptoms worsened. Their clinical response was excellent and symptoms totally resolved three days later.

Primary EA is a benign, localized, sterile inflammation of the epiploic appendages, resulting from torsion or spontaneous venous thrombosis of a draining vein, usually involving the sigmoid colon or cecum. Secondary EA is associated with inflammation of adjacent organs (diverticulitis, appendicitis, cholecystitis) [1]. Patients present with acute abdominal pain mostly localized in the affected area with local tenderness on physical examination, while rebound tenderness may also exist, mimicking the clinical picture of acute abdomen, frequently leading to misdiagnoses such as acute appendicitis or diverticulitis. Notably, primary EA has been reported in 2-7% of patients in whom a clinical suspicion of diverticulitis was entertained and in 0.3-1% of patients suspected of having appendicitis [2-4]. However, in EA, fever, nausea, vomiting, decreased appetite and altered bowel function are usually absent, whilst inflammatory markers are usually normal or slightly elevated [1,5]. CT findings are virtually pathognomonic for EA, while excluding other causes of abdominal pain. The typical finding is a 2 to 3 cm, oval-shaped, fat density, paracolic mass with thickened peritoneal lining and peri-appendageal fat stranding. A high-attenuated central dot within the inflamed appendage that corresponds to a thrombosed draining appendageal vein is occasionally evident [6]. Magnetic resonance imaging findings of EA have not been well studied but appear to correlate with CT findings, while abdominal ultrasonography can be utilized in patients with a thin body habitus in experienced centers [7,8].

Patients can be managed conservatively with or without oral anti-inflammatory medications and occasionally with a short course of opiates. Complete resolution without surgical intervention usually occurs within 3 to 14 days. Complications are extremely uncommon, including intestinal obstruction and abscess formation; hence patients should be advised to seek medical attention if symptoms worsen [1,5].

Primary EA should be considered in the differential diagnosis of patients presenting with localized lower abdominal pain without fever or increased inflammatory markers. Inaccurate diagnosis can lead to unnecessary hospitalizations, antibiotic therapy and surgical intervention.

References


Departments of Internal Medicine (Karolina Akinosoglou, Stelios F. Assimakopoulos); Radiology (Pantelis Kraniotis); Gastroenterology (Konstantinos Thomopoulos), University Hospital of Patras, Patras, Greece

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Correspondence to: Stelios F. Assimakopoulos, MD, PhD, Department of Internal Medicine, University Hospital of Patras, Patras 26504, Greece, Tel.: +30 2610 999583, Fax: +30 2610 993982, e-mail: sasim@upatras.gr

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