Differential Diagnosis of Acute Abdomen

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We present the case report of a 12-year-old male, complaining of a four hour course of abdominal pain, progressively worsening in the left iliac fossa irradiating to the hypogastric and ipsilateral inguinal regions, without improvement despite acetaminophen therapy. No fever, vomiting, or diarrhea were described. Past medical history was positive for a pattern of constipation with hard stools and sometimes with traces of blood. On examination, the patient showed pain facies, tenderness on palpation in the left iliac fossa, and discomfort on decompression. The inguinoscrotal region examination was normal. Blood studies showed no leukocytosis, neutrophilia, or C-reactive protein elevation. Abdominal ultrasound revealed an oval hyperechoic lesion, compatible with edematous fat, surrounded by a thin layer of fluid, at the transition of the descending to the sigmoid colon, corresponding to the tenderness point. Those images were consistent with epiploic appendagitis (Figs. 1 and 2). The patient was discharged home with oral anti-inflammatory medication for five days and acetaminophen as needed.

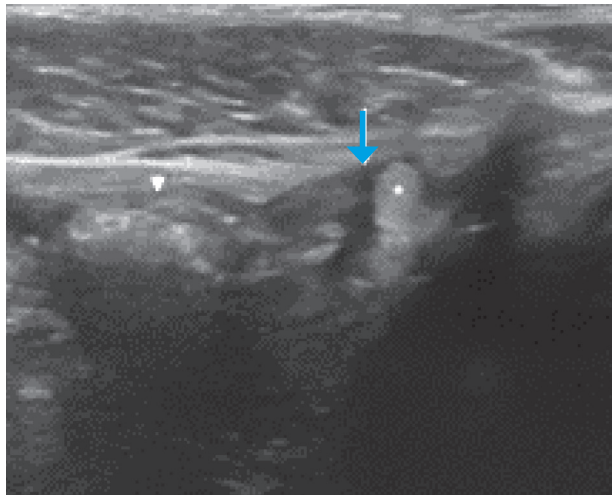

Figure 1. Ultrasound axial plane image, using a variable frequency linear probe (9-12 MHz), in the right low quadrant of the abdomen (the area of the symptoms). A hyperechogenic nodular lesion, in keep with edematous epiploic appendage (asterisk), immediately adjacent to the descending colon is observed. Those findings are suggestive of epiploic appendagitis.

Epiploic appendagitis is a self-limiting benign condition. It is related to an ischemic infarction due to torsion or spontaneous thrombosis of the epiploic appendage central vein. It occurs most commonly in the second to fifth decades of life, but the incidence is unknown.[1] Patients most commonly present with acute or subacute onset of lower abdominal pain, usually in the left abdomen. This condition is diagnosed with computer tomography in adult patients. In children, as a consequence of radiation hazard of computer tomography, ultrasound may be the only imaging technique used.[2] The ultrasound findings include an incompressible oval hyperechoic image (fat), surrounded by a thin layer of hypoechoic fluid and probe induced tenderness. Epiploic appendagitis is most often confused with acute diverticulitis and acute appendicitis. Treatment should be conservative with anti-inflammatories and analgesics.[3,4] Complete resolution usually occurs in 3-14 days. Surgery should be reserved for refractory cases with symptom persistence or worsening or the presence of complications.[5]

Keywords: Abdomen, Acute/etiology; Child; Colitis/diagnostic imaging; Diagnosis, Differential

WHAT THIS REPORT ADDS

- Pediatricians must consider epiploic appendagitis in the differential diagnosis of acute abdomen.
- Clinical presentation and abdominal imaging can usually differentiate epiploic appendagitis from other diagnoses.
- Epiploic appendagitis is a benign and self-limiting condition that can be managed conservatively with anti-inflammatory medication.

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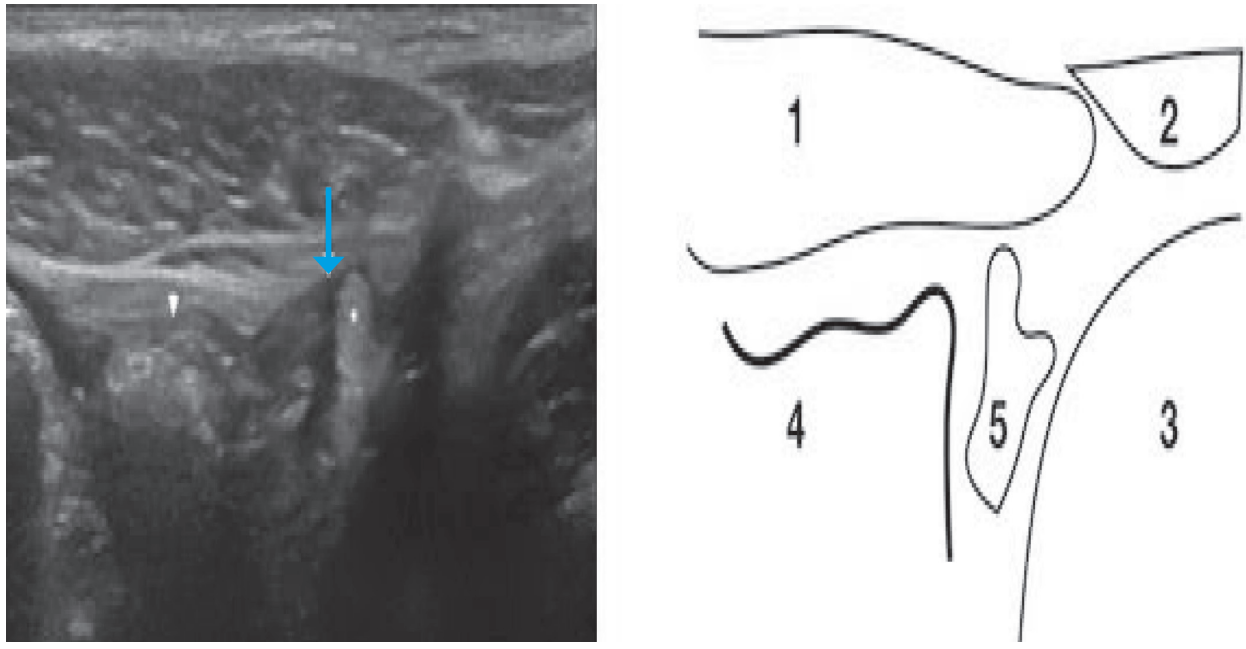

Figure 2. Schematic presentation of the ultrasound image. 1 - *rectus abdominis* muscle, 2 - abdominal wall lateral muscles, 3 - *psoas* muscle, 4 - descending colon, 5 - epiploic appendage.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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