

Acute epiploic appendagitis

Published on 20.05.2018

DOI: 10.1594/EURORAD/CASE.15734

ISSN: 1563-4086

Section: Abdominal imaging

Area of Interest: Abdomen

Procedure: Diagnostic procedure

Imaging Technique: CT

Special Focus: Acute Case Type: Clinical Cases

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Patient: 54 years, female

Clinical History:

54-year-old female patient with a background of hypertension, type 2 diabetes mellitus and previous appendicectomy presented to A&E c/o lower abdominal pain.

The patient described a constant sharp pain in the RIF with no radiation. She was afebrile with no upper or lower GI symptoms.

CRP - 13, WCC - 12

Imaging Findings:

The contrast-enhanced CT shows a 15x7 mm ovoid fat-containing lesion located anterior to the caecum surrounded by a 2-3 mm hyperdense rim.

The intra-abdominal viscera are otherwise unremarkable apart from a paraumbilical hernia with a broad neck to the sac. There is no pneumoperitoneum or free fluid.

Discussion:

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Epiploic appendages are small peritoneal pouches along the external surface of the colon that consist of fatty tissue and small blood vessels. Epiploic appendagitis is a rare condition caused by torsion or venous thrombosis of an epiploic appendix, resulting in localised inflammatory changes. [1]

Clinically patients describe sudden onset, non-radiating sharp abdominal pain, more commonly in the left lower quadrant. It's rarely associated with diarrhoea or vomiting. Blood tests are usually normal but can show mild inflammatory changes. [1]

Although it usually resolves within 10 days after conservative management, its presentation may resemble other more serious causes of acute abdominal pain and can potentially lead to unnecessary medical or surgical intervention. [2]

- CT Findings:

Common findings include an ovoid fatty mass, approx 1-4 cm, on the outer aspect of the colonic wall. The localised inflammation is seen as a thin hyperdense rim surrounding the ovoid lesion (ring sign). [3]

- Ultrasound Findings:

Ultrasound of the area of maximal tenderness may reveal a non-compressible, avascular, hyperechoic mass surrounded by a hypoechoic line. They are not typically associated with bowel wall thickening or ascites. [4]

- Differential Diagnosis:

- Acute Diverticulitis:

Although both can present similarly, in general, however, patients with acute diverticulitis are more likely to experience nausea, vomiting, fever, leukocytosis. Patients with acute appendagitis can often present afebrile with normal white cell counts. [5]

Common CT findings include colonic diverticula with mesocolonic inflammation and wall thickening. There may be associated fluid accumulation, fat stranding or extraluminal air, which are seldom found in cases of acute appendagitis. [5]

- Appendicitis:

Classically presents with peri-umbilical pain referred to right lower quadrant associated with fever, vomiting and leukocytosis.

CT findings reveal a dilated appendix, thickened wall and a distended lumen.

- Omental Infarction:

This often presents with non-specific abdominal pain, normal/ moderately raised white blood cell count and is virtually indistinguishable from acute appendagitis solely based on clinical presentation.

CT findings reveal a solitary non-enhancing omental mass with heterogeneous attenuation, which is most often located in the right lower quadrant. Although the CT appearance is similar to that of acute appendagitis, it lacks the hyperattenuating ring and is more commonly located next to the caecum or the ascending colon. [6]

- Conclusion:

Epiploic appendagitis is unlikely to be suspected clinically – it is uncommon and its presentation non-specific. Its imaging characteristics are, however, often characteristic and allow a confident diagnosis of a self-limiting condition that may be managed conservatively.

Differential Diagnosis List: Acute epiploic appendagitis, Acute diverticulitis, Appendicitis, Omental infarction

Final Diagnosis: Acute epiploic appendagitis

References:

Cho MS1, Hwang-Bo S1, Choi UY1, Kim HS1, Hahn SH1. (2014) A case of epiploic appendagitis with acute gastroenteritis. (PMID: [25587527](#))

Jain TP1, Shah T, Juneja S, Tambi RL. (2008) Case of the season: primary epiploic appendagitis: radiological diagnosis can avoid surgery. (PMID: [18053822](#))

Uslu Tutar N1, Özgül E, Ö?üz D, Cakir B, Tarhan NC, Co?kun M. (2007) An uncommon cause of acute abdomen--

epiploic appendagitis: CT findings. (PMID: [17602359](#))

Rioux M1, Langis P. (1994) Primary epiploic appendagitis: clinical, US, and CT findings in 14 cases. (PMID: [8153333](#))

SinghAK, Gervais DA, Hahn PF, Rhea J, Mueller PR. (2004) CT of acute appendagitis.

PuylaertJB (1992) Right-sided segmental infarction of the omentum: clinical, US, and CT findings.

Figure 1

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Description: The contrast-enhanced CT shows a 15x7 mm ovoid fat-containing lesion located anterior to the caecum surrounded by a 2-3mm hyperdense rim.

Note the presence of a paraumbilical hernia approx 6x10 cm. **Origin:** Department of Radiology, Royal Wolverhampton NHS Trust, Wolverhampton, UK