

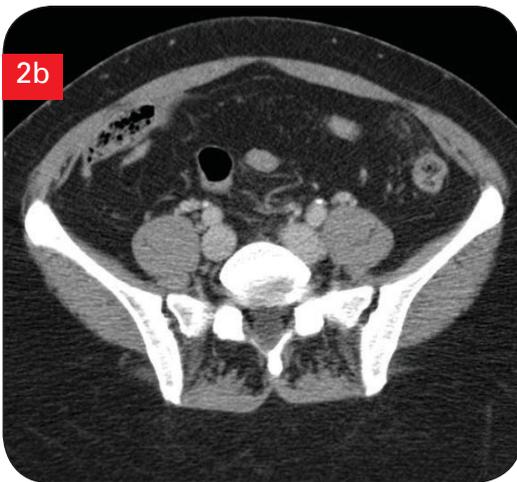
PROBLEM



Patient 1



Patient 2



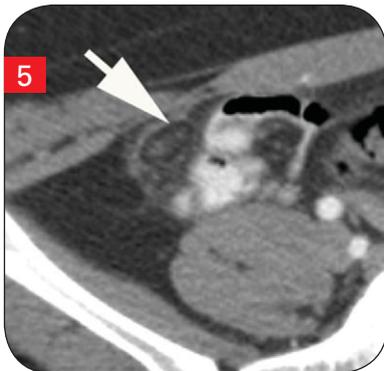
Patient 3

>> A 42-year-old man presents to your emergency department complaining of right lower quadrant pain. He has a low-grade fever and mild leukocytosis. A CT scan is ordered to confirm the presumed diagnosis of acute appendicitis. Figure 1 is an axial CT slice showing the pathology underlying this patient's pain; Figures 2a and 2b are CT images from other patients with the same condition.

Based on these images, what is the correct diagnosis and how would you treat it?

Turn page for answers >>

ANSWER



>> The patient has acute epiploic appendagitis. The epiploic, or omental, appendages are peritoneal outpouchings between 0.5 and 5 cm in size that contain adipose tissue and blood vessels. They are most commonly found projecting from the serosal surface of the sigmoid colon (and are associated with diverticular disease), but can occur anywhere along the colon.

In approximately three out of four cases, epiploic appendagitis occurs secondary to torsion and subsequent inflammation. Other causes include incarceration either within a hernia or as a complication of bowel obstruction. The average patient is a 30- to 50-year-old man presenting with acute abdominal pain. There is generally no fever or leukocytosis, but when present, these findings can further confuse the clinical presentation with acute appendicitis or diverticulitis.

The normal epiploic appendages cannot be seen on CT scans because they blend in with the peritoneal fat. In patients with appendagitis, however, they are visible as a round or oval structure (Figure 3, white arrow) surrounded by a well-defined wall of inflammation with a centrally located vessel. In rare cases, the central vessel will be absent, which does not preclude this diagnosis. Our patient has significant inflammatory changes in the surrounding peritoneal fat (Figure 3, asterisk). The patient in Figure 4 has similar findings, with a well-defined oval structure and central vessel (white arrow), but lacking the surrounding inflammation. In our patient, these changes are seen adjacent to the cecum (Figure 5, white arrow), resulting in a clinical presentation similar to appendicitis.

Prior to the widespread use of CT to determine the cause of acute abdominal pain, epiploic appendagitis was diagnosed and treated primarily by surgical means. When diagnosed preoperatively the condition is treated with oral anti-inflammatory agents. Epiploic appendagitis is self-limiting and typically resolves within 10 days.

SUGGESTED READING

Sandrasegaran K, Maglinte DD, Rajesh A, Akisik FM. Primary epiploic appendagitis: CT diagnosis. *Emerg Radiol.* 2004;11(1):9-14.

Singh A, Gervais D, Hahn P, et al. Acute epiploic appendagitis and its mimics. *Radiographics.* 2005; 25(6):1521-1534.

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