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**Journal**

Proceedings of UCLA Health, 28(1)

**Author**

Chung, Melissa

**Publication Date**

2024-11-13

## CLINICAL VIGNETTE

# Recurrent Epiploic Appendagitis

Melissa Chung, MD

### Case Presentation

A 66-year-old female presented to primary care clinic complaining of worsening left lower quadrant abdominal pain that started two days ago. The pain was non-migratory, constant, sharp, 8-10 in severity, localized to the left lower quadrant. She denied fevers, chills, nausea, vomiting, anorexia, change in bowel habits, black or bloody stools, diarrhea, and constipation. Past medical history included hypertrophic cardiomyopathy and paroxysmal atrial fibrillation. Past family history includes mother with a history of diverticulosis. Patient denied personal history of diverticulosis or diverticulitis. Past surgical history included cholecystectomy and tubal ligation. Social history was negative for alcohol, tobacco, and recreational drug use.

Vital signs were normal and she was hemodynamically stable with blood pressure of 106/68, heart rate 55, respiratory rate 18, temperature 97.6F, and 96% oxygen saturation. Her abdomen was soft and non-distended with moderate tenderness to palpation of left lower quadrant. There was no guarding or rebound and McBurney's and Rovsing's signs were absent.

Her history and physical exam raised concerns for diverticulitis or appendicitis. Stat CT abdomen and pelvis showed inflammatory changes surrounding a small fatty focus associated with the descending colon with a small central hypodensity, diagnostic of epiploic appendagitis. No diverticular disease was noted, as well as normal appendix. Patient was started on pain treatment with acetaminophen 1000mg three times daily, and her symptoms resolved within the next two weeks.

Two years later, patient presented with similar symptoms and left lower quadrant abdominal pain. Repeat CT abdomen pelvis showed a focus of fat attenuation measuring 2.2 cm with surrounding stranding abutting the descending colon. Patient was diagnosed with recurrence of epiploic appendagitis, and her symptoms again resolved with acetaminophen within a few weeks.

### Discussion

Epiploic appendagitis is a rare condition that resembles an acute abdominal infection, such as acute appendicitis or acute diverticulitis, and can lead to unnecessary antibiotic therapy.<sup>1</sup> It most commonly affects obese males in their fourth or fifth decade of life.<sup>2</sup> The most common comorbidities are obesity, hypertension, and diabetes.<sup>3</sup>

The epiploic appendage is an outpouching of peritoneal fat attached to the surface of the colon. These appendages are usually 1 to 2 cm thick and 0.5 to 5 cm long.<sup>3,4</sup> They can become enlarged with age, especially in obese adults. Because they are pedunculated, they can undergo acute torsion, which results in inflammation and ischemia of the appendage, leading to aseptic fat necrosis.<sup>2,3</sup>

Patients with epiploic appendagitis usually present with acute onset of lower abdominal pain. Symptoms may include rebound tenderness, nausea, fever, and vomiting.<sup>4,5</sup> Vitals are typically normal, with labs showing normal to mildly elevated WBC, and elevation of CRP.<sup>6</sup>

On CT imaging, epiploic appendagitis appears as an oval lesion surrounded by a hyperdense rim, which is called the "hyperattenuating ring sign". A high attenuation focus within a fatty lesion may also be observed, and is called the "central dot sign".<sup>6,7</sup> It is most frequently found in the descending colon, followed by the sigmoid colon, then the cecum.<sup>4</sup>

### Conclusion

Epiploic appendagitis is an aseptic, self-resolving condition that typically does not require the use of antibiotics. It is important to keep this condition in the differential when patients present with localized left lower quadrant pain, as misdiagnoses can lead to unnecessary use of antibiotics. It is easily recognized on CT imaging. Treatment is analgesics to manage the pain and condition usually resolves in one to two weeks.

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