

Epiploic Appendicitis: A rare case of acute abdominal pain

Epiploik Apandisit: Akut Karın Ağrısının Nadir Bir Nedeni

Ömer TAŞKIN¹, Ayça AÇIKALIN¹, Nezihat Rana DİŞEL¹

ABSTRACT

Epiploic appendicitis (EA) is a rare condition caused by the acute inflammation of an appendix epiploica which may interfere with the causes of acute surgical abdominal pain. Here we report a 22-year-old male who applied to the emergency room with an abdominal pain in left lower quadrant. He had a mild tachycardia, tenderness and guarding on the physical examination and elevated white blood cell count. The patient was diagnosed with EA which was confirmed by computed tomography. The patient was then hospitalized in general surgery clinic for pain management and follow up. The patient was discharged from hospital without any operative treatment or further complications. Epiploic appendicitis should be considered in patients with isolated abdominal pain without symptoms such as nausea, vomiting, fever. Our goal by reporting this case is to remind this diagnosis and prevent patients from unnecessary surgery.

Key words: Epiploic appendicitis, Surgical emergency, Abdominal pain.

ÖZET

Epiploik Apandisit (EA) cerrahi akut batın ile karışabilen, appendiks epiploica'nın akut inflamasyonuna bağlı bir durumdur. Biz bu yazıda sol alt kadranda ağrısıyla acil servise başvuran 22 yaşında bir erkek hastayı bildiriyoruz. Hastanın muayenesinde hafif taşikardisi, hassasiyeti ve defansı vardı ve beyaz küresi yüksekti. Hastaya bilgisayarlı tomografi kullanılarak epiploik apandisit tanısı konuldu. Hasta ağrı kontrolü ve takip için genel cerrahi servisine yatırıldı. Herhangi bir komplikasyon veya cerrahi operasyon olmadan taburcu edildi. Epiploik apandisit bulantı, kusma, ateş gibi bulguları olmayan izole karın ağrılı hastalarda akla gelmesi gereken bir durumdur. Bu yazıyı yazmaktaki amacımız karın ağrılı hastalarda bu tanıyı da hatırlatmak ve hastalara gereksiz cerrahi girişimi önlemektir.

Anahtar Kelimeler: Epiploik apandisit, Cerrahi acil, Karın ağrısı

Introduction:

Epiploic appendix are usually of 3 cm length, fat contained, peritoneal out pouched arising from the serosal surface of the colon. Located most frequently in sigmoid colon and cecum, there are about 50 to 100 epiploic appendix in every human being (1, 2). Currently there is no consensus on its exact function. Acute epiploic appendicitis (EA) is a self-limiting inflammation caused by the torsion of an appendix epiploica. A typical patient with an EA is a middle aged one with a pain in left lower quadrant (3). The cardinal sign is pain and can mimic acute appendicitis or acute diverticulitis. Here, we aimed to discuss an EA case to remind emergency physicians to differentiate patients with EA from those who need surgical interventions for abdominal pain.

Case Presentation:

22-year-old man presented to the emergency room with an abdominal pain in left lower quadrant that was on going for last 48 hours. He described his pain as constant and sharp, without any accompanying nausea, vomiting, diarrhea or urinary complaints. His past medical history revealed any significant medical or surgical treatments.

The physical examination of the patient revealed a mild tachycardia at a rate of 100 beats-per-minute, normal bowel sounds but a tenderness and guarding without rebound in the left lower quadrant. He was afebrile and quite calm without any other pathologic examination findings. His blood and urine tests results were in normal limits except an elevated white blood cell count ($14,63 \times 10^3 \mu\text{L}$). Abdominal computed tomography (CT) with intravenous (IV) contrast showed a 7 mm x 17 mm fat mass surround by a hyperdense frame in the proximal section of the sigmoid colon which was compatible with EA (Figure 1).



Figure 1

The patient was then admitted to the surgery ward for observation and pain management. Following three days in general surgery ward with pain management, the patient was discharged without any complications and surgical interventions.

Discussion:

Epiploic appendicitis is a rare condition caused by the acute inflammation of an appendix epiploica. In surgical case series, 57% of cases occurs in the rectosigmoid, 26% in the ileocecum, 9% in the ascending colon, 6% in the transverse colon and 2% in the descending colon. Obesity and strenuous exercise may cause the development of EA. There are no systemic signs or symptoms such as fever, nausea, diarrhea and vomiting (3). Immediate diagnosis therefore, can be difficult to reach. However, computed tomography has been proven useful to diagnose EA, as it usually appears as an oval fat mass surrounded by a mild hyperdense frame and mesenteric bend. Due to the fat necrosis, calcification may also occur in the center. An intraperitoneal free fluid can be formed by occlusion of the pedicle shaft of an epiploic extension. The treatment is almost supportive and conservative for pain management without administration of any antibiotics. Most of the cases get healed in one or two weeks (4, 5). However, in case of complications, surgery can be the only option for definitive treatment (3).

Epiploic appendicitis can be easily misdiagnosed as acute appendicitis or diverticulitis due to fact that there are no specific symptoms or laboratory tests for diagnosis. In this case, we were able to diagnose EA with the availability of computed tomography and patient did not receive unnecessary surgery. The pathognomonic signs of our patient in CT were paracolic, fat-containing, oval lesions with a rim of soft tissue density and pericolic fat stranding (6, 7). Literature bears similar findings associated with the EA for the middle-aged patients (1, 3, 6). In particular, our case was very similar to a case study of a 24-year-old woman, who was also diagnosed with EA with similar symptoms (8). Surgical literature suggests conservative management of EA (3-5, 7). However, our case study showed that when EA is diagnosed accurately with the help of IV contrast tomography, unnecessary surgical interventions can be prevented. The findings were in accordance with the literature that describes EA as a self-limiting condition which responds to non-steroidal anti-inflammatory medications within few days to four weeks if there is no complications such as abscess or sepsis (3-5, 7). In our case, the patient responded to medical treatment only in three days and he was subsequently discharged without surgical intervention.

Conclusion:

Epiploic appendicitis can cause a condition which may interfere with the causes of acute surgical abdominal pain. It can be easily misdiagnosed as acute appendicitis or acute diverticulitis. Epiploic appendicitis should be considered in patients with abdominal pain with mild systemic symptoms such as nausea, vomiting, fever or anorexia. It is important for an emergency physician to diagnose EA accurately to prevent patients from unnecessary surgery.

References

1. Almeida AT, Melão L, Viamonte B, Cunha R, Pereira JM. Epiploic Appendagitis: An Entity Frequently Unknown to Clinicians— Diagnostic Imaging, Pitfalls, and Look-Alikes. *American Journal of Roentgenology*. 2009;193(5):1243-51.
2. Smereczyński A, Kołaczyk K, Bernatowicz E. Intra-abdominal fat. Part II: Non-cancerous lesions of the adipose tissue localized beyond organs. *Journal of Ultrasonography*. 2016;16(64):32-43.
3. Sand M, Gelos M, Bechara FG, Sand D, Wiese TH, Steinstraesser L, et al. Epiploic appendagitis--clinical characteristics of an uncommon surgical diagnosis. *BMC Surg*. 2007;7:11.
4. Tachamo N, Timilsina B, Nazir S, Lohani S. Abdominal pain - learning when not to intervene! *J Community Hosp Intern Med Perspect*. 2016;6(6):32960.
5. Schnedl WJ, Krause R, Tafel E, Tillich M, Lipp RW, Wallner-Liebmann SJ. Insights into epiploic appendagitis. *Nature Reviews Gastroenterology & Hepatology*. 2010;8:45.
6. Ozkurt H, Karatag O, Karaarslan E, Rozanes I, Basak M, Bavbek C. CT findings in epiploic appendagitis. *Surgery*. 2007;141(4):530-2.
7. Cakiroglu B, Sinanoglu O, Abci İ, Tas T, Dogan AN, Aksoy SH, et al. An unusual cause of hematuria; primary epiploic appendagitis. *International Journal of Surgery Case Reports*. 2014;5(12):902-5.
8. Bastidas JG, Danzy LE, Blackwell L, Hayden R, Bostick PJ. Epiploic appendagitis in a 24-year-old woman. *The American Journal of Emergency Medicine*. 2008;26(7):838.e1-.e2.