

# Primary Epiploic Appendagitis of vermiform appendix: a rare case

Şahin Kaymak(\*), Mustafa Tahir Özer(\*), Hasan Şahin(\*), Orhan Kozak(\*), Murat Urkan(\*), İbrahim Yavan(\*\*)

## ÖZET

### **Appendiks vermiformisin primer epiploik apandisiti; nadir bir olgu**

**Giriş:** Epiploik apandisit (EA), apendiks epiploikanın torsiyonu sonucu gelişebilir. EA kolunu etkiler ve diğer akut karın patolojileri ile karışabilir. Biz yanlış tanı konulan apendiks vermiformisin iskemik epiploik apandisit vakasını sunmak istedik.

**Vaka:** 63 yaşında bayan hasta karın ağrısı şikayeti ile başvurdu. Hastada sağ alt kadran ağrısı, ve hassasiyet ve rebaund hassasiyet mevcuttu. Hastanın tam kan tahliliinde lökosit değeri 13300 / $\mu$ L olarak bulundu. Hastaya uygulanan abdominal cerrahi ile apendektomi yapıldı. Ameliyat esnasında apendiks vermiformisin iskemik ve gangrenöz epiploik apandisiti gözlendi. Ardından infarkt eklenmiş epiploik apandisit için apandektomi yapıldı.

**Sonuç:** Apendiks vermiformisin iskemik epiploik apandisiti vakaları, diğer akut karın tablolarının klinikleri ile karışılmamıştır. Cerrahlar kendi kendini sınırlayan bu hastalığın farkında olmalıdır.

**Anahtar Kelimeler:** Epiploik apandisit, apendiks vermiformis, nadir olgu

## SUMMARY

**Introduction:** Epiploic appendagitis (EA) may develop as a result of torsion of appendix epiploicae. EA affect the colon and is confused with other acute abdominal pathology. We present misdiagnosed ischemic epiploic appendagitis that present at the vermiform appendix.

**Case:** A 63 years-old patient presented with the complaint of abdominal pain. She had right lower quadrant pain, tenderness and rebound tenderness. Then, increased white blood cell(WBC) count (13300 cells/ $\mu$ L). We conform to the emergency abdominal surgery (Appendectomy). During the operation an ischemic and gangrenous appendix epiploica that present at the vermiform appendix was observed. Then, appendectomy was performed with attached infarcted appendix epiploica.

**Conclusion:** Case with ischemic epiploic appendagitis that present at the vermiform appendix may be confused with other acute abdomen clinique. Surgeons should be aware of this self-limiting disease.

**Key words:** Epiploic Appendagitis, vermiform appendix, a rare case

## Introduction

Epiploic appendagitis (EA) is a rare self limiting inflammatory/ischaemic condition. It may develop as a result of torsion of appendix epiploicae, spontaneous thrombosis of the venous outflow (resulting in ischaemia and necrosis) and / or inflammation of the appendices epiploica (1). Appendices epiploicae are small pouches of fat protruding from the serosal surface of large intestine. And it can be seen from caecum to rectosigmoid. Commonly, EA affect the descending colon particularly sigmoid colon, and is confused with other acute abdominal pathology such as diverticulitis, regional enteritis, ovarian torsion, salpingoophoritis, typhillitis and perityphillitis (2). If it affect the caecum, the clinical manifestations can be similar to acute appendicitis or any other cause of acute pain in the right lower (3). Therefore we can say; nonspecific abdominal pain is the most common diagnosis in these patients.

Herein, we present a 63 years old patient with misdiagnosed preoperatively as acute appendicitis; who was later upon surgical exploration found to have ischemic epiploic appendagitis that present at the vermiform appendix.

## Case

A 63 years-old patient presented to the emergency department (ED) with the complaint of abdominal pain of 2 (two) day duration. In her past medical history; she had a coronary cardiac disease. On the examination: right lower quadrant pain, tenderness, and rebound tenderness. She was subfebrile (37,3°C) and had leucocytosis with 11000 cell /  $\mu$ L. In time, her blood tests showed increased white blood cell (WBC) count (13300 cells/ $\mu$ L) with predominance of neutrophils (89,3%). Urine examination was normal. We did not find any evidence about US research and other radiological graphic. So, we conform to the emergency abdominal surgery (Appendectomy) instead of conservative management and pain control. At the time of surgery, we had seen a little hyperemic (inflammatory) appendix. In other word, the appendix was grossly normal. However, an ischemic and gangrenous appendix epiploica that present at the vermiform appendix was observed (figure 1). At the same time; we did not see any pathology about adjacent tissue. Appendectomy was performed with attached infarcted appendix epiploica. After performed of appendectomy it was sent to the histopathological examination. And histopathologically; lobulated fibrofatty tissue with congestion, acute inflammation and fat necrosis of vermiform appendix were seen (Figure 2). The early postoperative period was uneventful and the patient was discharged home on POD 3.

## Discussion

Epiploic appendagitis has been described in the Emergency Medicine literature mostly as a case series and review of

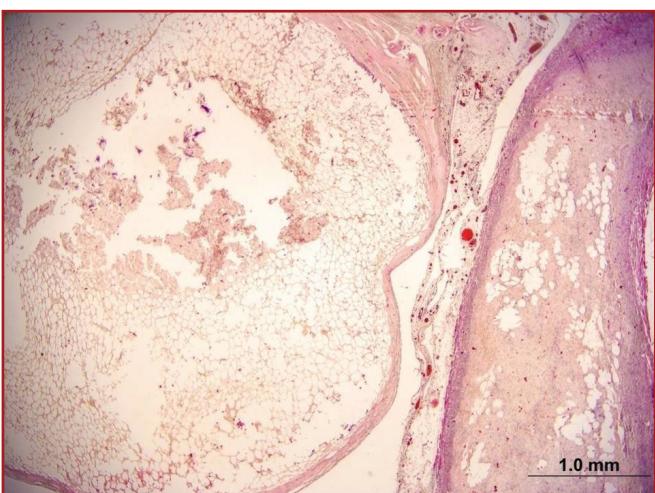
\*Gülhane Eğitim ve Araştırma Hastanesi Genel Cerrahi AD. Etlik-Ankara/Türkiye

\*\*Gülhane Eğitim ve Araştırma Hastanesi Patoloji AD. Etlik-Ankara/Türkiye

**Reprint request:** Şahin Kaymak

Gülhane Eğitim ve Araştırma Hastanesi Genel Cerrahi AD. Etlik-Ankara/Türkiye  
 (sahinkaymak@hotmail.com)

Date submitted: Jul 25, 2015 • Date accepted: Jan 26, 2016 • Online publication date 30 Aralık 2016



the literature. EA can occur at any age and has a wide range, though the peak incidence of EA is 4th and 5th decades (4). Anatomically, each appendage is supplied by one or two small arteries from the colonic vasa recta and is drained by a single vein with a thin neck. So, torsion of EA can be easily with any reason. A normal adult human being usually has about 50–100 appendices epiploicae increasing progressively in size and number (2).

In the published literature, the most common location of the reported infarcted appendices epiploicae is the left-sided colon (5). In other word it is generally located along the sigmoid colon (57-83%), while locating at the ileocecal area (26%) infrequently (6). On the other hand, a few case of EA (infarcted appendix epiploica) in the vermiform appendix has been published previously. So herein, we present scarce type of case with ischemic epiploic appendagitis that present at the vermiform appendix.

Patients are commonly seen well, rather than diffusive sickness. The pain is typically focal. Right lower quadrant pain and tenderness has been reported in 50–55% of patients and in the left lower quadrant in 30% (6,7). Likewise, in our case; the patient was performed as a focal illness (nonmigratory symptoms). In laboratory evaluations, There are no pathognomonic diagnostic laboratory values as we saw. The white blood count may be abnormal but is generally not markedly elevated. Because of the scarcity of specific diagnostic symptoms or signs, EA has a clinical diagnosis during laparotomy commonly. The most common preoperative diagnoses associated with

epiploic appendagitis include appendicitis, ovarian cyst or torsion, gallbladder disease diverticulitis, colon cancer, duodenal ulcer, abscess, mesenteric adenitis (8)adenitis. In recent time, however, the diagnosis of EA is more frequent with using new medical diagnosing technique such as CT scans and USG. As the radiological and clinical instrument upgrade day by day, overtreatment, unnecessary surgery can be avoided. In the same time we can exclude diverticular disease (2%–7%) and appendicitis (1%) with these advance technique frequently (9). The clinical features are nonspecific and include signs of peritoneal irritation localized to a part of the abdomen. So we have great disadvantage due to the location of EA. Moreover, the temperature may be normal or slightly elevated. At the same time WBC count is slightly elevated (3). As a result, ischemic EA was diagnosed during laparotomy. In diagnosed cases with EA; Although some authors suggested that definitive treatment of EA is a surgical excision, conservative treatment with antibiotics and analgesics seems also to be safe. However, failure to recognise this diagnosis could lead to unnecessary intervention.

## Conclusion

In conclusion, type of case with ischemic epiploic appendagitis that present at the vermiform appendix can make up a diagnostic quandary and may be confused with other acute abdomen clinique. Clinicians should be aware of this selflimiting disease and keep it as a differential diagnosis in acute abdomen.

## References

- Christianakis E, Paschalidis N, Filippou G, Smailis D, Chorti M, Rizos S, Filippou D. Cecal epiploica appendix torsion in a female child mimicking acute appendicitis: a case report. Cases J. 2009;2:8023. doi:10.1186/1757-1626-2-8023
- Ahmad S, Khan ZA, Sheikh MY, Khan S, Ur Rehman A, Uddin B. Primary epiploic appendagitis: 3 case reports. J Pak Med Assoc. 2011 Jan;61(1):83-85.
- Rashid A, Nazir S, Hakim SY, Chalkoo MA. Epiploic appendagitis of caecum: a diagnostic dilemma: a case report. GMS German Medical Science 2012, Volüm. 10:Doc14. doi:10.3205/000165.
- Abdulzhavadov IM. Torsion of the epiploic appendages of the vermiform appendix. Klin Khir 2006;3:62-3.
- Legome EL, Belton AL, Murray RE, Rao PM, Novelline RA. Epiploic appendagitis: the emergency department presentation. J Emerg Med 2002;22:9-13.
- Ozdemir S, Gulpinar K, Leventoglu S, Uslu HY, Turkoz E, Ozcay N, Korkmaz A. Torsion of the primary epiploic appendagitis: a case series and review of the literature. Am J Surg. 2010 Apr;199(4):453-458.
- Vinson D. Epiploic appendagitis: A new diagnosis for the emergency physician. Two case reports and a review. JEM 1999;17: 827–832.
- Eric L. Legome, Austin L. Belton, Robert E. Murray, Pat M. Rao, Robert A. Novelline. Epiploic Appendagitis: The Emergency Department Presentation. The Journal of Emergency Medicine, Vol. 22, No. 1, 9–13, 2002
- Van Breda Vriesman AC, Puylaert JB. Epiploic appendagitis and omental infarction: pitfalls and look-alikes. Abdom Imaging 2002;27: 20-28.