

A Rare Cause of Abdominal Pain: Primary Epiploic Appendagitis

Nadir Bir Karın Ağrısı Sebebi:Primer Epiploik Apendajit
Radyoloji

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Özet

Primer epiploik apendajit, nadir görülen ve kolonun epiploik apendikslerinin inflamasyonu sonucu oluşan bir durumdur. Kendi kendini sınırlaması ve konservatif tedavinin yeterli olması nedeniyle, cerrahi gerektiren ve benzer klinik bulgular gösteren diğer abdominal ağrı nedenlerinden ayırımı yapılmalıdır. Bunun için bilgisayarlı tomografi en etkin ve kesin sonuç veren görüntüleme yöntemidir. Bu sayede, gereksiz cerrahiden ve antibiyotik kullanımından kaçınılmış olur.

Anahtar kelimeler: *Abdominal, Epiploik*

Abstract

Primary epiploic appendagitis is a rare disorder occurring as a result of the inflammation of the epiploic appendages of colon. Because it is self limiting and requires only conservative treatment, differential diagnosis from the other entities, which present with similar symptoms and need surgical intervention must be made. Computed tomography is the most efficient and accurate imaging modality for this purpose. Thus unnecessary surgery and use of antibiotics can be avoided.

Keywords: *Abdominal, Epiploic*

Introduction

Epiploic appendages are small outpouching sacs covered with serosa and filled with fat and localized in the tenia coli over the external surface. The number of these appendages is about 100, and their average size is about 3 cm¹. One or two small end arteries of vasa recta longa of the colon supply each appendage, and through its narrow pedicle passes the draining tortuous vein²⁻⁴.

Primary epiploic appendagitis (PEA) is rare and presents with the inflammation of the epiploic appendages without the inflammation of adjacent structures. The cause is usually a spontaneous torsion, or a hemorrhagic infarct, etc⁵⁻⁸.

PEA is a rarely encountered cause of localized abdominal pain. The accurate and the differential diagnosis of this situation is important, since the treatment is conservative and the patients can be saved from unnecessary surgical interventions. Because the clinical findings are similar to those requiring surgical treatment, radiology plays a major role in the management of the disease.

Here we present a case with epiploic appendagitis and its computed tomography(CT) findings.

Case Report

A 41 years old woman referred to our hospital with a left sided, sharp, non radiating, localized abdominal pain. It had an onset two days ago and was gradually worsening. She had a value of leukocyts as 9500 and CRP was 2,84.mg/L She did not have urinary symptoms or altering in bowel habits. She had a nonspecific ultrasound examination without a prediagnosis. Then she was directed to the tomography department to be scanned with CT,

to enlighten the reason of unexplained abdominal pain. In CT images, a round fatty lesion with an enhancing surrounding rim was detected in the left iliac fossa. This lesion was anterior to the descending colon with a mesenteric stranding around. There was no sign of obstruction, diverticulitis or bowel wall thickening. And there were no inflammatory changes in the surrounding organs either. These imaging findings were consistent with primary epiploic appendagitis. The patient was admitted to the hospital for observation, and treatment with analgesics, anti-inflammatory drugs, intravenous fluid. With the improvement of clinical condition and relieving of the complications overnight, she was discharged the other day with her treatment arranged as oral analgesia.

Discussion

Epiploic appendages are small pouches of peritoneum. They are filled with fat and small vessels that protrude from the serosal surface of the colon⁹. They have been reported to act like cushions to support the colon and to be involved in immune functions, like a small omentum, and also in colonic absorption^{10,11}. Their limited blood supply, together with their pedunculated shape, make epiploic appendages prone to ischemic infarction^{1,12,13}.

Epiploic appendagitis may occur anywhere in the colon; mostly in rectosigmoid junction with 57% of cases as the literature suggests. The second site, we see 26% of the cases in the ileocecal region, then 9% in the ascending colon, 6% in the transverse colon and 2% in the descending colon. The incidence is higher in males and mostly occurs in the fourth and fifth decades¹⁴⁻¹⁶.

PEA may mimic other disorders and present its symptoms according to its localization. But the main symptoms are non-radiating and localized abdominal pain of rapid onset. In abdominal examination the abdomen is usually soft not distended, whereas shows a localized tenderness⁹. The laboratory tests are usually nonspecific and does not give enough information about the diagnosis. CT utilization is very helpful, with the identification of round or ovoid lesions of fatty density with a hyperattenuating rim which is the diagnostic hallmark and surrounding ill-defined fat stranding in the mesenteric fat adjacent to the colon¹⁷ (Figure 1,2). This pathognomonic CT finding eliminates the need to perform an exploratory laparoscopy. Omental infarct can mimic PEA, but it has a bigger mass and generally located at right. Contrarily to PEA which is located to anterolateral of colon, omental infarct is found generally in the medial aspect of ascending and descending colon. Hyperattenuating rim and central spot can not be detected on CT¹⁸. Also CT can easily differentiate other acute disorders presenting with lower abdominal pain like acute appendicitis, diverticulitis etc. which require surgical intervention. Clinical findings and localization help with differential diagnosis with acute appendicitis. A long segment of thickened bowel wall which we don't observe in PEA is a typical finding for diverticulitis¹⁸.

In a study made by Singh et al.¹³ the CT findings have totally resolved in patients having a CT scan six months after the first presentation. Residual findings in the evolution of the PEA may be; decrease in size of the fatty core with increase in the overall density, decrease in size only, increase in overall density only, and mild residual stranding density in the mesocolon¹³. PEA is a self-limited situation and the treatment of PEA is conservative, usually with anti-inflammatory drugs. Many clinicians are not familiar with this entity, but it must be a differential diagnosis to be regarded. With the improvement of cross-sectional imaging modalities and contribution of CT to the diagnosis, many patients have been saved from unnecessary surgery, antibiotic use or hospitalization^{9,12,13}.



Figure 1

Transvers plane of epiploic appendagitis



Figure 2

Coronal reformatted image. The lesion is shown with black arrows

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