



RESEARCH ARTICLE

PRIMARY EPIPLOIC APPENDAGITIS OF ASCENDING AND DESCENDING COLON: TWO CASES

*Ayşe Özlem Balık, Levent Soydan and Zeynep Gamze Kılıçoğlu

Department of Radiology, Haydarpaşa Numune Eğitim ve Araştırma Hastanesi, Tıbbiye Street, 40, 34668, Istanbul/Turkey

ARTICLE INFO

Article History:

Received 15th April, 2016
Received in revised form
23rd May, 2016
Accepted 16th June, 2016
Published online 31st July, 2016

Key words:

Epiploic appendagitis,
Appendicitis,
Diverticulitis.

Copyright©2016, Ayşe Özlem Balık et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Ayşe Özlem Balık, Levent Soydan and Zeynep Gamze Kılıçoğlu, 2016. "Primary Epiploic Appendagitis of Ascending and Descending Colon: Two Cases", *International Journal of Current Research*, 8, (07), 35051-35053.

ABSTRACT

Primary epiploic appendagitis is an exceptional reason of the acute abdomen. It is an ischemic infarction of an epiploic appendage. If it happens on the right hemicolon, it looks like an appendicitis whereas a left-sided epiploic appendagitis can be mistaken for sigmoid diverticulitis. In this study, cases for both of these conditions are exhibited with respective clinical, computed tomography (CT) and ultrasonographic (US) findings. Both cases were analyzed conventionally.

INTRODUCTION

Primary epiploic appendagitis (PEA) is not common, self-limited condition usually is seen with an instant focal abdominal pain in the lateral lower quadrants, it is non-migratory, and it can get worse with vomiting and abdominal stretching (Sand *et al.*, 2007; Singh *et al.*, 2005; Sandrasegaran *et al.*, 2004). In often cases, right-sided PEA can be diagnosed as acute appendicitis or right-sided diverticulitis (Sand *et al.*, 2007). Left-sided PEA can mimic sigmoid diverticulitis. With the widespread usage of computed tomography (CT) in order to evaluate cases related acute abdominal pain, recognition of PEA is now more popular (Thomas *et al.*, 1974). It is important that the PEA must appraised in the differential diagnosis list in patients with a right lower quadrant pain in order to avoid unnecessary surgical procedures.

Case Reports

A 65-year-old female who has acute onset and non-migratory, sharp right lower quadrant pain. She was afebrile, and she had no anorexia, nausea, difference in bowel habits or rectal bleeding. Abdominal examination indicated that there is tenderness on the right lower quadrant.

Her complete blood count was normal whereas C-reactive protein (CRP) level was 80 mg/dl (normal range: 0-0.8 mg/dl). On an US examination (Philips, IU22, Bothell Washington, USA) a hypo echoic oval mass was identified posterior to the abdominal wall muscles in the right lower quadrant (Figure 1). Color Doppler US did not show any vascularity in the lesion. Following administration of intravenous, oral and rectal contrast (Omnipaque 300 and Visipaque 270, Nycomed Amersham, New York, USA) an abdominal CT (Toshiba, Aquilion, Nasu, Japan) scan was performed. No findings compatible with cholecystitis, diverticulitis or appendicitis were detected. A well circumscribed, fat-density oval lesion with a maximum diameter of 3 cm was noted adjacent to the ascending colon (Figure 2). The ascending colon and adjacent overlying visceral peritoneum appeared inflamed and thickened (Figure 3). A colonoscopy was then performed due to the findings suggesting a wall thickening in the ascending colon which showed no abnormal finding in the colonic segments. A diagnosis of a PEA was made according to findings on CT and US. The patient was put on antibiotic treatment and oral anti-inflammatory medications. She was followed up for 10 days after which period her condition notably improved. Another 31-year-old male patient who comes to the emergency department because of acute onset left lower quadrant pain. He had no fever, anorexia, nausea. After abdominal examination of him, tenderness of the left lower quadrant is seen. As in previous case, his complete blood count was normal with elevated.

*Corresponding author: Ayşe Özlem Balık,

Department of Radiology, Haydarpaşa Numune Eğitim ve Araştırma Hastanesi, Tıbbiye Street, 40, 34668, Istanbul/Turkey

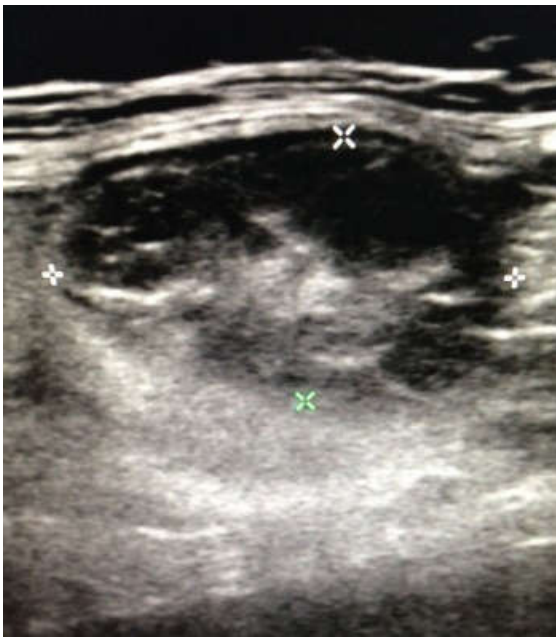


Fig.1. Sonographic View of Ascending Colon Appendagitis



Fig. 2. The Coronal CT View of Acolon Appendagitis



Fig. 3. The Axial CT View of Ascending Colon Appendagitis

CRP levels (40 mg/dl). Abdominal US was within normal limits. Following administration of intravenous, oral and rectal contrast an abdominal CT scan was performed. No findings compatible with cholecystitis, diverticulitis or appendicitis were detected. A well circumscribed, fat-density oval lesion with a maximum diameter of 1.5cm was noted adjacent to the descending colon. The adjacent overlying visceral peritoneum was thickened and pericolonic fatty tissue appeared inflamed (Figure 4). The patient fully recovered following a treatment with non-steroidal anti-inflammatory drugs in one week.

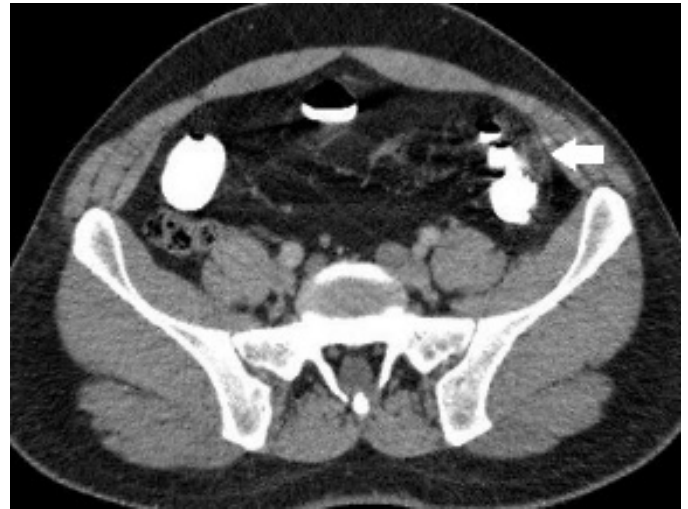


Fig. 4. The Axial CT View of Descending Colon Appendagitis

DISCUSSION

Epiploic appendages are 0.5-5 cm long pouches of peritoneum. They are usually around 100 in number, extending from the cecum to the sigmoid colon protruding from the external surface on the anti-mesenteric border of the colon (Choi *et al.*, 2011). The highest concentration of epiploic appendices is in the cecum and sigmoid colon but the rectum is spared (Singh *et al.*, 2005). From the first description of epiploic appendages was made by Vesalius in 1543, in 1853 Virchow suggested that their detachment might be a source of free intraperitoneal bodies and in 1986, they were first identified via CT scan (Sand *et al.*, 2007). Torsion of epiploic appendages is not common, but can lead to ischemia presenting as an acute clinical condition which imitates appendicitis, diverticulitis or more critical causes of acute abdominal pain (Lien *et al.*, 2004). Besides torsion, spontaneous venous thrombosis of an appendageal draining vein is another unusual reason of PEA (Ghosh *et al.*, 2003; Legome *et al.*, 2002). Primary epiploic appendagitis mostly shows itself in the 4th and 5th decades of life of a male predominance (Singh *et al.*, 2005; UsluTutar *et al.*, 2007). The patient has no fever and no change in bowel habits (Thomas *et al.*, 1974). Laboratory findings show that everything is at normal limits, apart from the elevated CRP. US findings show an ovoid, non-compressible, hyperechoic mass with a hypoechoic rim and no central flow on color Doppler US. Most cases of acute epiploic appendagitis were used to diagnosed during surgery in the days without CT. The diagnosis of PEA is common with the increasing use of CT (UsluTutar *et al.*, 2007). Normal epiploic appendages are not visible on CT scans. When it transforms to PEA, CT

demonstrates a fat-density lesion next to the colon with surrounding mesenteric fat stranding and sometimes a contrast-enhanced rim. Differential diagnosis of PEA includes: diverticulitis, omental infarction, appendicitis, less commonly mesenteric panniculitis and primary tumors and metastases to the omentum. It is conservatively recommended to the patients oral anti-inflammatory medications (Legome *et al.*, 2002). The recurrence rate in PEA may be up to 40% (Sand *et al.*, 2007).

Conclusion

PEA is a rare clinical condition which can overlap with many entities that cause acute abdomen. It is usually a self-limited process with clear radiologic findings. It is important that this condition be recognized by clinicians and radiologists to avoid unnecessary hospitalization and surgery.

REFERENCES

- Choi, Y. U., Choi, P. W., Park, Y. H., *et al.* 2011. Clinical characteristics of primary epiploic appendagitis. *J Korean Soc. Coloproctol.*, 27:114-21
- Ghosh, B. C., Shatzkes, J., Webb, H. 2003. Primary epiploic appendagitis: diagnosis, management, and natural course of the disease. *Mil Med.*, 168:346-7.
- Legome, E. L., Belton, A. L., Murray, R. E., *et al.* 2002. Epiploic appendagitis: the emergency department presentation. *J Emerg Med.*, 22: 9-13.
- Lien, W. C., Lai, T. I., Lin, G. S. *et al.* 2004. Epiploic appendagitis mimicking acute cholecystitis. *Am J Emerg Med.*, 22:507-8.
- Sand, M., Gelos, M., Bechara, F. G., *et al.* 2007. Epiploic appendagitis: clinical characteristics of an uncommon surgical diagnosis. *BMC Surg.*, 1:7-11
- Sandrasegaran, K., Maglinte, D. D., Rajesh, A., *et al.* 2004. Primary epiploic appendagitis: CT diagnosis. *Emerg Radiol.*, 11: 9-14
- Singh, A. J., Gervais, D. A., Hahn, P. F., *et al.* 2005. Acute epiploic appendagitis and mimics. *Radio Graphics*, 25:1521-34.
- Thomas, J. H., Rosato, F. E., Patterson, L. T. 1974. Epiploic appendagitis. *Sur GynecolObstet*, 138:23-5
- UsluTutar, N., Ozgul, E., Oguz, D., *et al.* 2007. An uncommon cause of acute abdomen- epiploic appendagitis: CT findings. *Turk J Gastroenterol*, 18: 107-110
