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Cecal diverticulitis mimicking acute appendicitis

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ABSTRACT

Cecal diverticulitis is a rare cause of acute abdomen and is often confused with appendicitis because of physical examination findings that suggest appendicitis. Here I present a case of an 48-year-old female with cecal diverticulitis who was medically treated. This study aimed to create awareness for cecal diverticulitis and help avoid unnecessary surgical procedures for medically treatable pathologies.

Keywords: Cecum, diverticulitis, emergency department

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Cecal diverticulitis is a rare clinical problem in the Western world, more commonly seen in the descending and sigmoid colon [1]. The disease is often misdiagnosed at the time of its occurrence. The symptoms and signs of the disease similar to acute appendicitis with right sided abdominal tenderness, nausea, vomiting, fever and leukocytosis [2]. In the past, It is extremely difficult to distinguish patients with cecal diverticulitis preoperative from acute appendicitis and such distinction is usually made in the operating room [3, 4]. This study aimed to create awareness for cecal diverticulitis and help avoid unnecessary surgical procedures for medically treatable pathologies.

CASE PRESENTATION

A 48-year-old female with abdominal pain persisting for 2 day admitted to the emergency service. Physical examination revealed tenderness in the right lower quadrant and right lateral side of the umbilicus. The patient had experienced neither nausea nor vomiting. The laboratory test results on admission were within the normal limits except White blood cell count was slightly elevated at 11700/ml, with C-reactive protein raised to 89 mg/l (normal: 0-3mg/l). Minimal collection was present in the pericecal region on ultrasonography. Computed tomography (CT) scan of the abdomen showed diverticulitis in 1 cm size with fecalite and contamination of fatty tissue in the lateral wall of the stain (Figure 1a and 1b). The patient was hospitalized in the general surgery clinic. Oral intake was discontinued. Intravenous fluid support, a cefuroxime axetil (Cefaks iv; Deva, İstanbul, Turkey) and ornidazole (Orniject iv; Tüm-Ekip, İstanbul, Turkey) were administered. Abdominal pain was relieved on the second day of hospitalization. No collection was present in the pericecal region in ultrasonography made 5 days of hospitalization. The patient was discharged on the seventh day after hospitalization. The patient was discharged after prescribing antibiotics and antiinflammatory drugs.

DISCUSSION

Cecal diverticulitis is a rare clinical problem in the

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Figure 1. Axial (a) and coronal view of the cecal diverticulit with pericolonic fat stranding (white arrow)

Western world, more commonly seen in the descending and sigmoid colon [1]. Most patients with right side diverticula are asymptomatic. Their clinical presentation is well known to nearly mimic acute appendicitis and the correct diagnosis of cecal diverticulitis is most commonly made intra-operatively during exploration for suspected appendicitis [2].

Ultrasonography evaluation can be used as first modality in right lower abdominal pain. Right-sided colonic diverticulitis should be considered if ultrasonography findings show local wall thickening of the colon (> 4 mm), regional pericolic fat thickening, oval-shaped or rounded hypoechoic or nearly anechoic structure protruding from segmentally thickened cecal or ascending colonic walls [5]. In study conducted by Chou *et al*. [5], abdominal ultrasonography was shown to diagnose acute uncomplicated right colonic diverticulitis in 23 cases among 934 patients with indeterminate acute right lower abdominal pain. They demonstrated high sensitivity (91.3%) and specificity (99.8%) of ultrasonography for diagnosis of diverticulitis [5].

Previous studies have reported several pitfalls and

limitations that lowered diagnostic accuracy of ultrasonography examinations, such as obesity and excessive bowel gas. It may be logical for very obese patients suspected of having right-sided colonic diverticulitis in differential diagnosis of right lower quadrant pain to be sent directly to CT because of difficulty in penetrating tissue with ultrasonography [6, 7]. Diverticulitis is diagnosed more confidently with CT than abdominal ultrasonography [7]. CT scan may also be useful to show up other diseases responsible for lower right abdominal pain, such as neoplastic disease,acute appendicitis, ileitis, inflammatory bowel disease [8].

Treatment of cecal diverticulitis is still controversial, varying from conservative therapy to aggressive surgery, such as right hemicolectomy [9]. Conservative management of cecal diverticulitis may be an effective treatment modality in cases diagnosed with imaging techniques. Surgical treatment may be necessary for diverticular bleeding unresponsive to conservative management, or recurrent and/or complicated diverticulitis in cases with perforation, abscess formation, intestinal obstruction, or fistula [10, 11]. In this study, symptoms completely resolved with a conservative treatment.

CONCLUSION

As a result, cecal diverticulitis should be considered in the differantial diagnosis of patients complaining of right iliac fossa pain. If uncomplicated diverticulitis of the right colon is correctly diagnosed with radiological evaluation will prevent unnecessary surgeries.

Informed consent

Written informed consent was obtained from the patient for the publication of this case report.

Conflict of interest

The authors declared that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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