Ulus Travma Acil Cerrahi Derg 2010;16 (6):579-581
Olgu Sunumu

Benign solitary cecal ulcer: a condition that mimics plastron appendicitis

İyi huylu, soliter çekum ülseri: Plastron apandisiti taklit eden bir durum

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The benign solitary cecal ulcer is a rare clinical entity that is not usually included in the differential diagnosis of the cecal diseases. The etiology is unknown, and there are no pathognomonic lesions or symptoms. Pre-operative and intra-operative diagnosis is difficult. Definitive diagnosis is generally obtained by histologic evaluation of the surgical specimen after a right hemicolectomy performed for a suspected neoplasm of the cecum. We herein describe a 70-year-old woman with solitary cecal ulcer presenting with abdominal pain, palpable mass on the right lower quadrant and leukocytosis, mimicking plastron appendicitis on initial evaluation.

Key Words: Colonoscopy; plastron appendicitis; right hemicolectomy; solitary cecal ulcer.

İyi huylu, soliter çekum ülseri genellikle çekum hastalıkları içerisine dahil edilmeyen nadir bir klinik durumdur. Etyolojisi belli değildir ve tanı koydurucu bulguları yoktur. Ameliyat öncesi ve ameliyat esnasında tanı koymak zordur. Kesin tanı genellikle çekumda tümör şüphesi nedeniyle sağ hemikolektomi sonrası çıkarılan parçanın histolojik incelemesi ile konur. Bu yazıda, ilk değerlendirmede plastron apandisiti taklit eden tek çekal ülserli 70 yaşında kadın hastayı sunduk.

Anahtar Sözcükler: Kolonoskopi; plastron apandisit; sağ hemikolektomi; tek çekum ülseri.

Benign solitary ulcer of the cecum is a rare cause of right lower quadrant pain. The etiology is unknown, and there are no pathognomonic signs. Solitary cecal ulcer should be included in the differential diagnosis of conditions causing diffuse or asymmetrical cecal wall thickening (appendicitis, an inflammatory disease, and colon carcinoma).[1] Colonoscopy is the best diagnostic method in uncomplicated cases, but it is usually diagnosed during laparotomy.

We herein describe a 70-year-old woman with solitary cecal ulcer presenting with abdominal pain, palpable mass on the right lower quadrant and leukocytosis, mimicking phlegmonous appendicitis on initial evaluation.

CASE REPORT

A 70-year-old woman admitted to the Emergency Department with a six-day history of continuous epigastric pain, abdominal distention and fever. She described migration of the pain to the right lower quadrant three days previously. Her medical history revealed a cholecystectomy two years before, and she had been using angiotensin converting enzyme inhibitors for chronic idiopathic hypertension. She had neither chronic constipation nor diarrheal attacks. On physical examination, right lower quadrant tenderness and firm mass measuring approximately 7x6 cm were noted. Except for leukocytosis (15.2 k/mm^3), other laboratory values were in normal ranges.

The patient was made non per os and intravenous nutritional support was given with cefuroxime and metronidazole antibiotherapy. Phlegmonous appendicitis, colon carcinoma and cecal diverticulitis were considered in the differential diagnosis. An abdominal computed tomography (CT) with oral and intravenous contrast revealed a cecal wall thickening, paracolic, mesenteric millimetric lymph nodes and small bowel segments with suspicion of fixation to the mass (Fig. 1). Right colon carcinoma was the most likely diagnosis. Colonoscopic examination was performed to con-

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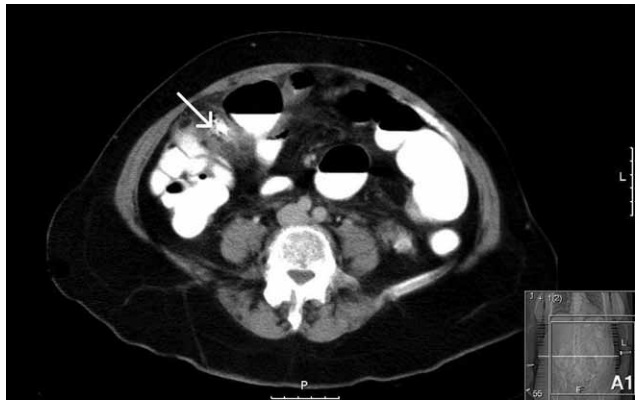

Fig. 1. CT image reveals concentric wall thickening and luminal narrowing in the cecum.

firm the diagnosis; however, a solitary giant cecal ulcer with yellowish exudate at the base and hyperemic deformed ileocecal valve were seen (Fig. 2). Multiple biopsies were taken for pathological diagnosis. On microscopic examination, active inflammation with eosinophil granulocytes and ulceration with fibrinopurulent exudate were noted (Fig. 3). Neither neoplastic cells nor cytomegalovirus (CMV) infection was established. A few fungus-like microorganisms were detected on examination with periodic acid-Schiff (PAS) dye. Carcinoembryonic antigen value was normal. On the 10th day of admission, physical findings remained stable with no change in the right lower quadrant mass and leukocyte count fell to normal levels. In fact, the reasonable suspicion of colonic neoplasia could not be excluded in the patient's management. Laparotomy was performed for a definitive diagnosis. On exploration, a cecal mass extending to the hepatic flexure was found with enlarged paracolic and mesenteric lymph nodes. Right hemicolectomy and ileocolic anastomosis were performed. Pathologic examination defined mucosal ulceration invading the muscularis propria and widespread congestion detected in the whole specimen. Ten reactive lymph nodes were extracted from the specimen.

The patient had an uneventful recovery, was discharged on the postoperative 6th day and she did not take any additional therapy.

DISCUSSION

Right lower quadrant pain is a real challenge for physicians, and many problems can complicate this situation. The first diagnosis that comes to mind should be acute appendicitis, since it is the most common cause of right lower quadrant pain in the whole population. However, only approximately 10% of cases of acute appendicitis occur in patients older than 60 years.[2] Among elderly patients discharged from the emergency department with a diagnosis of nonspecific abdominal pain, 10% are eventually diagnosed with an underlying malignancy.[2-4] Cecal carcinoma may be expected in up to 5% of patients with right lower quadrant pain, and can be identified by asymmetrical mural thickening, adjacent organ invasion, peritoneal implants, or distant metastases.[2,3]

Benign solitary ulcer is an uncommon entity mostly diagnosed by colonoscopy in patients presenting with abdominal pain and abnormal radiographic findings.[1,5] The CT findings of solitary cecal ulcer closely mimic cecal carcinoma with a mass-like thickening of the wall of the cecum or ascending colon and with stranding in the pericolonic fat; therefore, it is often not diagnosed preoperatively and patients often undergo surgery for suspected carcinoma, appendicitis or diverticulitis. The incidence of the disease may increase with increased use of colonoscopy for gastrointestinal symptoms. Approximately 50% of colonic ulcers are found in the cecum, usually anti-mesenteric, within 2 cm of the ileocecal valve. The solitary benign colonic ulcers occur in all age groups, mostly between

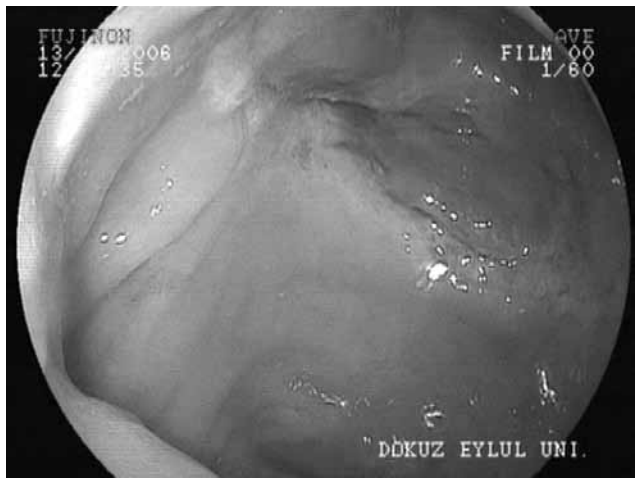

Fig. 2. A solitary giant cecal ulcer with yellowish exudate at the base examined on colonoscopy.

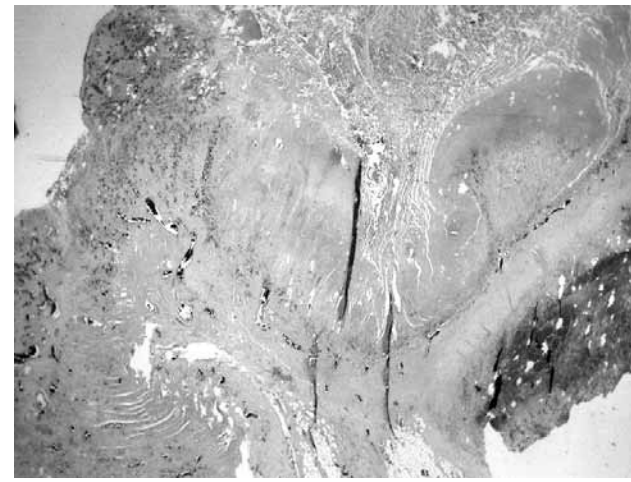

Fig. 3. Ulceration extending deep into the muscular layer and congestion (H-E original magnification X2).

40 to 60 years, without sex predilection, although a female preponderance has been described in some studies.[6] The most common complication of benign cecal ulcer is gastrointestinal bleeding. Perforation, peritonitis and subsequent abscess or stricture formation have also been described.[1,7,8] The etiology is usually unknown, but specific infections such as CMV in immunocompromised patients or *Campylobacter jejuni* were reported.[9,10] Yoshikawa et al.[11] in 1999 reported a case of solitary cecal ulcer as a cause of *Entamoeba histolytica* infestation, resolved with metronidazole therapy. There is also another report of a case describing a 40-year-old man with recurrent oral aphthous ulcers and skin rashes. The diagnosis was Behçet's syndrome.[7] The authors had reported that the patient had a solitary cecal ulcer complicated with an ileocecal fistula managed with medical therapy. Drugs, especially non-steroidal anti-inflammatory medications, have been described as causing cecal ulceration.[12] However, the most common cause of cecal ulceration is cecal carcinoma, which should be excluded primarily in the differential diagnosis. An ulceration with no evidence of malignancy can be managed with conservative non-operative treatment. Surgical intervention is necessary if malignancy is suspected, or when signs of hemorrhage, perforation or peritonitis are present. At the time of surgery, stapler-wedge cecectomy or more extensive right hemicolectomy should be considered. In our case, a 7x6 cm cecal mass was found on operation and the lower part of the ascending colon was fixed to the cecum. Because of the suspicion of colonic neoplasia, right hemicolectomy was performed.

We suggest that solitary cecal ulcers may have a false appearance of a colonic carcinoma on intra-operative or CT examination. As in our case, when evaluating a patient with abdominal pain located in the right lower quadrant and a palpable mass, solitary cecal ulcer should be considered in the differential diagnosis. In addition, at operation, concern over missing a carcinoma and fear of fecal contamination may force most surgeons to perform right hemicolectomy for cecal lesions of uncertain etiology.

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