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LETTERS TO THE EDITOR
EDİTÖRE MEKTUP
A case with psoas abscess caused by *Citrobacter freundii*

Citrobacter freundii'nin etken olduğu psoas absesi olan bir olgu

To the Editor

Psoas abscesses are classified as primary or secondary. The pathogenesis of the primary form of psoas abscess is incompletely understood, but hematogenous seeding of the muscle seems the most likely explanation. Secondary abscesses arise from direct extension of an adjacent organ, such as the gastrointestinal tract (1). Staphylococcus aureus is the pathogen in 80-88% of cases of primary psoas abscess (1, 2). Secondary psoas abscess is usually caused by enteric bacteria (2). Secondary psoas abscess is commonly secondary to gastrointestinal pathology, and Crohn's disease is responsible for 23-73% of cases, followed by appendicitis, diverticulitis, and carcinoma (1, 2). We describe herein a patient who presented with a psoas abscess secondary to Crohn's disease caused by Citrobacter freundii.

A 35-year-old man presented to our hospital complaining of progressive right hip pain associated with an enlarging mass at the right lower abdomen. He had subjective fever, chills, night sweats, and weight loss (6 k in 1 month). Vital signs were stable on presentation except for mild fever of 37.9°C. Physical examination revealed a tender mass palpated at the right lower abdomen. Laboratory data showed leukocytosis (16400/mm^3) with a left shift. Erythrocyte sedimentation rate was 80 mm/hour. Right hip joint magnetic resonance imaging (MRI) revealed an iliopsoas lesion measuring 16x7 cm with multiple septations suggestive of an abscess (Figure 1). An ultrasonography (USG)-guided aspiration of the abscess was done for diagnostic purposes. Gram stain revealed multiple polymorphonuclear leukocytes but no microorganisms. Culture yielded Gram-negative, oxidase-negative bacteria. The microorganism was identified as Citrobacter freundii with API 20E system (BioMerieux). The patient was treated with imipenem/cilastatin 500 mg four times daily according to the antibiotic susceptibility tests. A percutaneous USG-guided drainage was performed. During his follow-up, the patient was investigated for the etiology. An abdominopelvic computed tomography (CT) revealed intestinal wall thickening and dilatation at the intestinal segments near the cecum. Colonoscopy revealed fragile, hyperemic, and edematous terminal ileum and

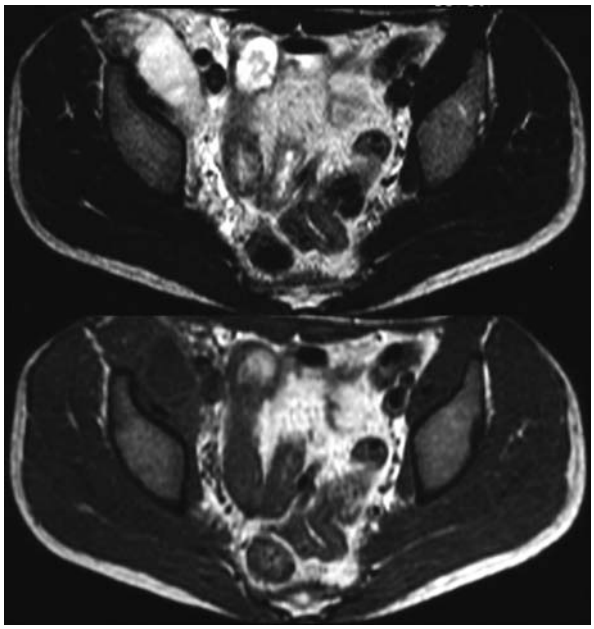

Figure 1. Magnetic resonance imaging of the abdomen and pelvis

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cecum. Colonoscopic biopsy result was non-specific interstitial colitis. Scanning of the abscess with contrast revealed fistula tracts from abscess to the terminal ileum and cecum. The patient underwent a surgical operation for the fistula tracts, and colon resection was performed. Pathological examination revealed granulomatous transmural inflammation and ulcers which matched Crohn's disease. The patient was subsequently discharged and on follow-up after two months the patient has been doing well.

Secondary abscesses arise from direct extension of an adjacent organ, such as the gastrointestinal tract (1). Crohn's disease is responsible for 23-73% of cases (2). Psoas abscess may be the first indication of Crohn's disease; in fact, gastrointestinal symptoms may be completely absent (3). Cellier et al. (4) reviewed 166 cases of Crohn's disease in the literature and six of them had psoas abscess, one of which was the first indication of Crohn's disease (4). In this case report also, psoas abscess was the first indication of Crohn's disease.

Clinical manifestations of psoas abscess include fever, abdominal and/or back pain and difficulty in walking. Other symptoms may include malaise, chills, weight loss or presentation with a tender mass (1). Our patient presented with similar symptoms. Laboratory tests may reveal increased white cell count, anemia, and elevated sedimentation rate, and blood cultures may be positive for a particular organism causing the abscess (5). The etiologic agent in this case report was Citrobacter freundii, which has been reported in the literature in only one case of pyomyositis in the rectus femoris muscle (6). To our knowledge, psoas abscess caused by Citrobacter freundii has not been previously reported in the literature.

Radiographic imaging studies help in diagnosis and may help in finding an underlying cause. Ultrasound of the abdomen may demonstrate a hypoechoic mass suggestive of psoas abscess but cannot identify the cause of the abscess. Computed tomography scan of the abdomen with contrast is the most efficient and accurate imaging study in diagnosing a psoas abscess (5).

Treatment involves the use of appropriate antibiotics along with drainage of the abscess. Ultrasound-guided percutaneous drainage was performed on the patient in this case report. This procedure is associated with a low morbidity and mortality. In patients with Crohn's disease, performing a single operation to drain the abscess and resect the diseased bowel is desirable (7). Primary psoas abscess has rarely resulted in death (2.5%); secondary abscesses, on the other hand, carry a higher mortality (18.9%) (2).

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