

Example of an infectious complication in injection drug users: Psoas abscess

İntravenöz uyuşturucu kullanan hastalardaki enfeksiyöz komplikasyonlara bir örnek: Psoas absesi

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Abstract

In this case report, the authors aim to present a psoas abscess of an injection drug user. These patients mostly admit to emergency department (ED) because of infections with unknown origin. Because of the obscure symptoms of the infection it is a challenge to diagnose for clinicians. A 26-year-old female who had drug addiction problem, and also under treatment for this problem, admitted with obscure infectious symptoms to ED. Physical examination revealed a pain located in the right coxae radiating to the knee. Computed tomography images of the right hip demonstrated a psoas abscess.

Keywords: Drug users, injections, intravenous, psoas abscess, low back pain.

Öz

Bu olgu sunumunda intravenöz uyuşturucu kullanan bir hastada gelişen psoas absesi sunulmaktadır. Bu hastalar sıklıkla acil servise sebebi bilinmeyen enfeksiyonlar nedeniyle başvururlar. Enfeksiyonun belirsiz semptomları nedeniyle klinisyenler için tanı koyması zordur. Yirmi altı yaşında ilaç bağımlılığı olan ve bu sebeple tedavi gören kadın hasta, bilinmeyen enfeksiyöz semptomlar ile acil servise başvurmuştur. Fizik muayenede sağ koksadan dize kadar yayılan ağrı ortaya çıktı. Sağ kalçaya yönelik çekilen bilgisayarlı tomografide psoas absesi saptandı.

Anahtar Sözcükler: Madde kullanıcıları, enjeksiyonlar, intravenöz, psoas absesi, bel ağrısı.

Introduction

Injection drug users (IDUs) are likely to face several social and medical conditions, such as infections, addiction and associated crimes, overdose, and withdrawal symptoms. Infections are the most common cause of admission to the emergency department (ED) for these patients (1,2). Diagnosis of a psoas abscess is difficult for ED physicians due to the obscure symptoms. Herein, we report the case of an IDU with a psoas abscess.

Written informed consent was obtained from the patient for publishing the individual medical records.

Case Report

A 26-year-old woman with rubor, fever, swelling, pain of the right knee and low back pain was admitted to the ED. In her history, she mentioned that she had similar complaints of the right knee one month ago that lasted a week long. Following that, similar symptoms appeared in her left knee continuing for 3 days. She also mentioned that she had night sweating and she was under treatment of drug addiction for a year. At the ascending aorta at the level of valsalva sinus, a mobile mass 9x4 mm neighboring to aortic wall echogenicity obtained and grade 1 aortic insufficiency was diagnosed at a previous center.

With careful physical examination the radiation of the pain to right knee during extension, inner femoral area and to the lumbar area must be discriminated. Besides, physical examination revealed a pain located in the right coxae radiating to the knee. Lung examination and heart sounds were normal. The abdomen was relaxed, and there was no rebound tenderness. Neurological examination revealed absence of neck stiffness. The

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temperature of the patient was 37.2°C, while the erythrocyte sedimentation rate was demonstrated as 90 mm/h. The laboratory results in the serum were as follows: WBC: 29090/mm³, neutrophil%: 77%, platelets: 459000, C- reactive protein: 15.38 mg/L, aspartate aminotransferase: 42 U/L, alanine aminotransferase: 34 U/L, alkaline phosphatase: 327 U/L, gamma glutamyl transferase: 99 U/L, creatinine: 0.6 mg/dL, and prothrombin time-international normalized ratio: 1.1. Brucella, hepatitis, human immunodeficiency virus serologies, rheumatoid factor, anti nuclear and anti-cyclic citrullinated peptide antibodies were negative. There was no vegetation on the transthoracic echocardiography performed by a cardiologist, and ejection fraction was normal.

Computed tomography (CT) images of the right hip demonstrated a mostly cystic lesion, approximately 11.2x10.5x5.5 cm in diameter containing air densities (Figure-1). With the diagnosis of a psoas abscess, the patient was consulted with the physicians from the departments of orthopedics and general surgery. The treatment of intravenous antibiotic tigecycline 100 mg iv initial dose, followed by 50 mg iv every 12 hours was planned. Percutaneous drainage of abscess was performed in the interventional radiology department. Upon reproduction of *Stafilococcus aureus* in the blood culture, the antibiotherapy was changed as intravenous antibiotic daptomycin 500 mg 4 mg/kg iv every 24 hours for 7 to 14 days.



Figure-1. a. Coronal CT scan of the patient showing the abscess formation in the psoas muscle. **b.** Axial CT scan view of the same abscess.

Discussion

The formation of an abscess in the iliopsoas muscle is defined as psoas abscess (3). Some cases could only be diagnosed in postmortem bodies. However, the use of CT increases the diagnosis of psoas abscess (4). In our study, we report a psoas abscess in an IDU diagnosed on CT.

Psoas abscesses can be classified as primary and secondary abscesses according to the etiology. Primary psoas abscess occurs by hematogenous or lymphatic seeding from a distant location (5,6), and the risk factors can be diabetes mellitus, intravenous drug use, HIV infection, renal failure, and immunosuppression (3,4). Besides, it was found to be more likely in children and young adults (4-6). Secondary psoas abscess occurs by contiguous spread and trauma (5). The main organism causing primary psoas abscess is staphylococcus aureus, and methicillin-resistant staphylococcus aureus can also be demonstrated. (7)

The symptoms include back or flank pain, fever, inguinal mass, limp, anorexia, and weight loss (3-5,6). Nearly 91% of the cases suffer from pain located in the back or flank and radiated to the hip or the posterior aspect of the thigh (4,5,6-8). This finding also made our diagnosis easier. The second most common symptom is fever with a prevalence of 75%, and psoas abscess can be the etiology in the patients with fever of unknown origin (8).

Intravenous drug use is rare in this country and patients and their relatives often conceal this situation. Also this is a matter, which accepted as a taboo and may not be investigated in deep by doctors. Besides, IDUs are in danger for the conditions associated with the direct effects of the agents and infection transmission. In addition, those infections seen in IDU patients may be mostly presented in occult and atypical formations. Psoas abscess is one of the well-known occult focuses for IDU patients. Usually, cases of psoas abscess may not admit to emergency departments with classical signs, on the other hand, they may be under investigation for different prediagnoses. She experienced the worsening of left hip pain, which was initially misdiagnosed in a previous hospital admission. An ED physician facing with an IDU-related abscess must be guarded for the associated complications and coexisting infections, such as necrotizing soft-tissue infection, septic arthritis, osteomyelitis, and epidural abscess. These complications were reported in 15-19% of the patients with IDU-related abscess (9,10).

In conclusion, diagnosis of psoas abscess is rare and difficult in ED. Emergency medicine specialists, when encountered with unexplained fever, lumbar pain and pain radiating to inner leg, should keep in mind the psoas abscess. To ensure the diagnosis, also should question related drug use, DM, risk factors such as immune suppression.

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