



Brucellosis Presenting as Piriformis Abscess

Piriformis Apsesi ile Prezente Olan Brusella Olgusu

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To the Editor;

A 27-year-old man presented to our emergency department complaining of left hip pain. Our patient had been in excellent health until pain developed three days before his presentation. He had no history of tobacco use, alcohol use, intravenous drug use, or any other factors for HIV infection. Our patient's medical history was unremarkable. A physical examination revealed painful hip movement and a positive straight leg raise sign, without any other significant abnormalities. Further investigation was deemed necessary and our patient was subsequently admitted to the hospital. Results of a hip X-ray were unremarkable. Laboratory tests revealed a white blood cell count of 12.500 cells/mm³ (normal 4.000 to 11.000 cells/mm³) with 60% neutrophils (normal 50% to 70%). He also had elevated inflammatory markers with erythrocyte sedimentation rate 90 mm/L hour (normal: 0 to 20 mm/L hour) and a C-reactive protein level of 11.16 mg/dL (normal: <0.8 mg/dL). His creatine phosphokinase level was 52 IU/L (normal: <190 IU/L) and lactate dehydrogenase level was 366 IU/L (normal 120 to 230 IU/L). Specimens of blood and urine were obtained for culture. The same day, he was submitted to a computed tomography scan of the abdomen, which did not show any significant abnormality. A pelvic magnetic resonance imaging (MRI) scan was performed two days later. The examination revealed a markedly enlarged right piriformis muscle on the T1-weighted image (Figure 1). After gadolinium administration there was widespread pathological enhancement, consistent with the presence of myositis. Inflammatory changes were also depicted in the adjacent soft tissues, spreading along the fascial planes. Serology with a standard tube agglutination test revealed a titer of >1/1280 for B melitensis. Two blood culture tests were also positive for B melitensis. Antibiotic treatment for brucellosis was initiated, with doxycycline 100 mg twice daily, rifampin 900 mg daily and ciprofloxacin 500 mg twice daily. After six months of antibiotic treatment our patient was

asymptomatic. At that time he was submitted to a follow-up MRI, which exhibited complete resolution of the previous findings. Our patient has remained asymptomatic to date. Myositis is a rare muscle infection, with the most commonly implicated bacteria being *Staphylococcus* and *Streptococcus*. Piriformis myositis has been rarely reported in the literature (1). Recognized predisposing factors for the condition are mainly previous viral or parasitic infections, rheumatic disease and human immunodeficiency virus infection. Piriformis pathology is a known but rare cause of hip pain and sciatica. This is due to its anatomic affinities, with the sciatic nerve closely related to the piriformis muscle, as it exits the pelvis through the greater sciatic notch. There have been reports of *Brucella* infection involving various unusual muscle groups

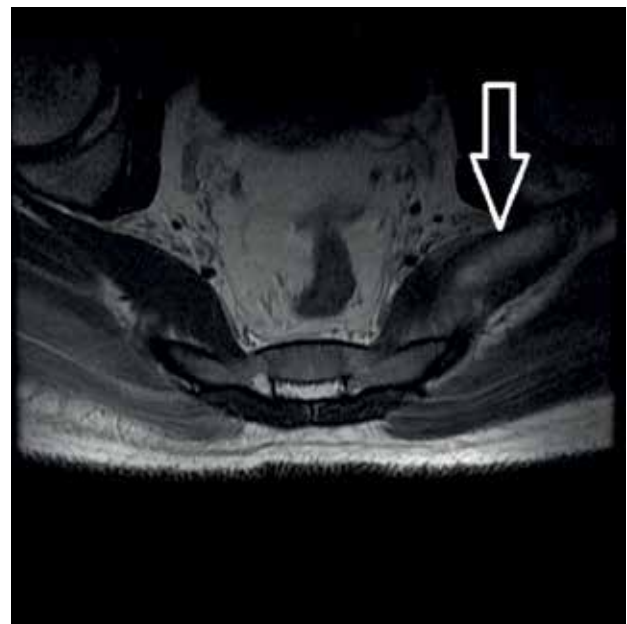


Figure 1. Enlarged right piriformis muscle on the T1-weighted image

(2). However, involvement of the piriformis muscle in brucellosis, as first presentation, has not been previously reported in the literature.

Keywords: Myositis, muscle infection, *Brucella melitensis*

Anahtar kelimeler: Miyozit, kas enfeksiyonu, *Brusella melitensis*

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