Tuberculous bursitis of the greater trochanter mimicking ankylosing spondylitis

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Abstract
Tuberculous trochanteric bursitis (TTB) is a rare condition that accounts for 1% of musculoskeletal tuberculosis cases. Extrapulmonary TB is usually diagnosed late because of reduced diagnostic suspicion, particularly in the absence of signs of systemic infection. Herein, we report a case of right hip pain that was misdiagnosed as ankylosing spondylitis. The patient had a history of inflammatory back pain with morning stiffness. However, HLA-B27 was negative. Sacroiliac magnetic resonance imaging (MRI) revealed a giant multiloculated collection (27×16×10 cm). Percutaneous drainage was performed and Mycobacterium tuberculosis was observed in fluid culture. The patient was treated by drainage along with antituberculosis therapy. After 1 year of antituberculosis therapy, control MRI revealed total resolution of the large fluid collection. It is important to emphasize that fever or general symptoms are absent in patients with TTB, as observed in the present case. In endemic countries, TTB should be kept in mind in the differential diagnosis of a patient presenting with chronic hip pain without fever, weight loss, and constitutional symptoms.

Keywords: Tuberculosis, trochanteric bursitis, ankylosing spondylitis

Introduction
Musculoskeletal manifestations of tuberculosis occur in approximately 1%-5.2% of cases. Tuberculous trochanteric bursitis (TTB) is a rare condition that accounts for 1% of musculoskeletal tuberculosis cases (1). As the incidence of tuberculosis declined, there have been fewer reports of this disease in the recent literature (2). Musculoskeletal manifestations of tuberculosis usually present progressively in the absence of fever and general symptoms, and diagnosis is usually made in advanced stages by the presence of abscesses or fistulas. Herein we report a case of right hip pain that was misdiagnosed as ankylosing spondylitis.

Case Presentation
A 19-year-old girl was admitted to a local hospital on account of right hip pain for 4 months. She had morning stiffness in the right hip and lumbar region for 1 h. Indomethacin (3×25 mg/day) and sulphasalazine (2 g/day) were administered presuming a diagnosis of ankylosing spondylitis. However, she did not benefit from this treatment. Three months later, she presented to our department with the same complaints. On physical examination, she had limitations in the lumbar spine. She had normal sacroiliac joints on plain X-ray. HLA-B27 was negative. Magnetic resonance imaging (MRI) of the sacroiliac joints revealed bilateral giant multiloculated collections around the right iliac wing and hip (approximately 27×16×10 cm) (Figure 1). This cystic lesion was located at the superior portion of the iliac wing and extended down till the perineum. Fluid collections seen in the multiloculated form in the gluteus maximus muscle were extending to the piniforms muscle. The radiology unit reported that this image may have a tuberculous origin and may have originated from the bursa of the greater trochanter of the right femur. The patient was subsequently hospitalized for drainage and further evaluation. On laboratory examination, she had limitations in the lumbar spine. She had normal sacroiliac joints on plain X-ray. HLA-B27 was negative. Mycobacterium tuberculosis grew in the fluid culture and antimycobacterial therapy consisting of isoniazid, rifampicin, ethambutol, and pyrazinamide was initiated. The hip pain and movement limitation...
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In the literature, most patients were treated either by curettage, chemotherapy, or both (3, 4, 6, 7). A few patients were treated by drainage alone with antituberculosis therapy (8). Most patients eventually required excision at the end due to lack of definitive treatment. The present report presents one of the rare cases where drainage alone with chemotherapy alone proved to be effective. A similar case that involved a misdiagnosis of ankylosing spondylitis has been published before, where a 35-year-old woman with low back pain was diagnosed to have ankylosing saccrolitis on the basis of HLA-B27 positivity (9). Even in that case, the review of constitutional symptoms was negative and MRI revealed a soft tissue lesion in the right thigh and hip. After operative drainage, *M. tuberculosis* grew in the culture media, similar to the findings in our patient.

In earliest studies, TTb was reported mostly in young adults; however, later reports indicated that TTb could occur at all ages, with higher incidence in older people (mean age: 57 years) (3). Our patient was 19 years old. In addition, it is important to emphasize that fever or general symptoms are absent in patients with TTb, as observed in our patient.

It is a major challenge for any physician in primary care to identify patients with inflammatory spine disease among the large group of patients with chronic back pain. In addition, the relative late appearance of radiographic sacroiliitis, up to several years after the first symptom, is an important reason for diagnosis delay (10). However, diagnosis in the prerediagnostic stage can be made if a combination of clinical, laboratory, and imaging (particularly MRI) parameters are applied. In our patient, HLA-B27 was negative and saccrolitis was not found in sacroiliac MRI.

**References**

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