A Rare Case of Bilateral Rapidly Destructive Osteoarthritis of the Hip

Nadir Bir Olgu Olarak Bilateral Hızlı Yıkıcı Kalça Osteoartriti

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Dear Editor,

Rapidly destructive osteoarthritis of the hip (RDOH) was first described by Lequesne, Postel, and Kerboull in 1970, and is characterized by the rapid destruction of the acetabular and femoral aspects of the hip joint within months. RDOH has an average onset age of 60 to 70 years, and is observed more frequently in women than men. The condition is a rare one, and the diagnosis is difficult to make because of the absence of typical clinical and radiographic features. Moreover, the hip involvement can be unilateral or bilateral, and patients typically have to undergo total hip arthroplasty (1-4).

Here in we describe a case with bilateral RDOH, was well treated with physical therapy and rehabilitation modalities, and oral glucosamine-chondroitin and non-steroidal anti-inflammatory drugs.

A 30-year-old male patient was admitted to the clinic with walking difficulty and right hip pain that was exacerbated with motion and diminished with non-steroidal anti-inflammatory drugs (NSAIDs). The patient's weight was 68 kilograms and his height was 174 centimeters. His pain was 9 on VAS (visual analog scale). His complaints had been started 2 months ago. The patient had not history of inflammatory, neurological, and or metabolic diseases, trauma, or and risk factors for septic arthritis. Physical examination revealed that he had an antalgic gait and that the bilateral hip ranges of motions were not restricted in both hips. However, only the right hip motions were painful. The neurological examination showed normal results. In addition, the erythrocyte sedimentation rate, C-reactive protein level, complete blood count, and results of biochemistry tests were normal. Tests for HLA-B27, rheumatoid factor, and anti-cyclic citrullinated peptide yielded negative results. Direct anteroposterior pelvis radiography showed a narrowing of the joint space, subchondral cysts in the femoral head, and osteophytes on the left hip (Figure 1).

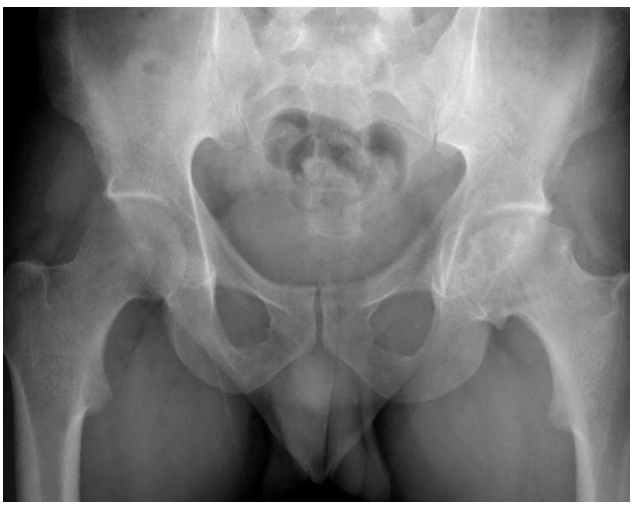

Figure 1. Direct anteroposterior pelvis radiography showed joint space narrowing, subchondral cysts in the femoral head, and osteophytes on the left hip. The findings for the sacroiliac joints and right hip were normal.

Meanwhile, the findings for the sacroiliac joints and the right hip were normal. Magnetic resonance imaging (MRI) of both hips revealed bone marrow edema in the right femoral head and joint effusion in the right hip joint, as well as subchondral cysts in the left femoral

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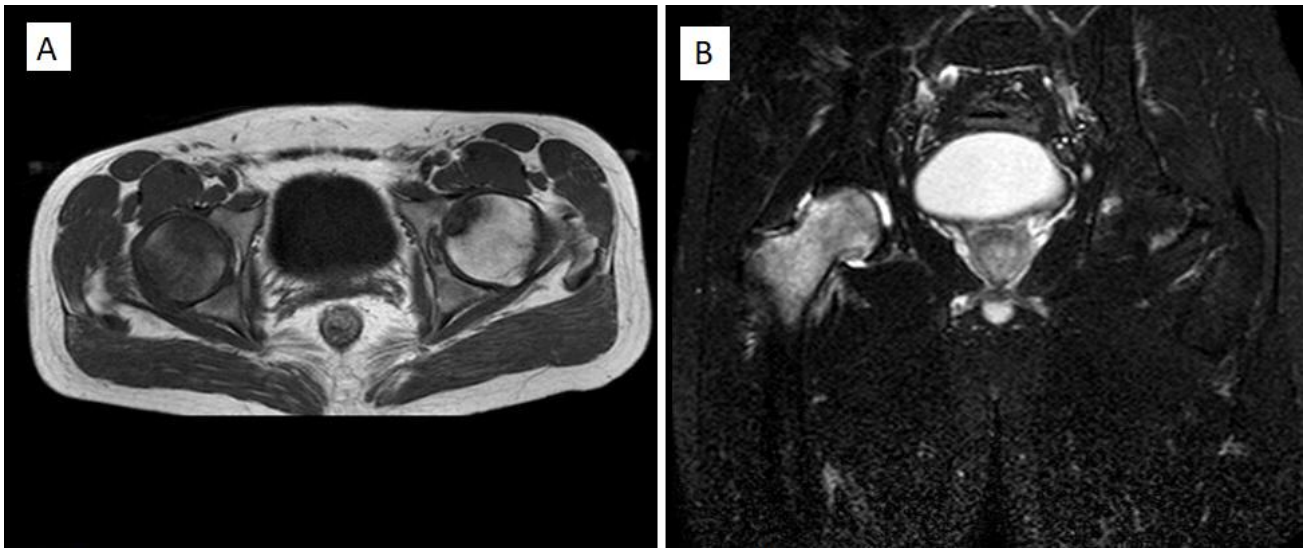

Figure 2A. On T1-weighted axial MRI, the hypointensity was compatible with bone marrow edema in the right femoral head and subchondral cysts in the left femoral head. **B.** On fat-suppressed T2-weighted coronal MRI, joint effusion and significant bone marrow edema were present in the right hip joint.

head (Figure 2a, b). Based on the 2 months of hip pain, the gait difficulty, the osteoarthritic features of the left hip on radiography, as well as the bone marrow edema and joint effusion in the right hip and subchondral cysts in the left hip on MRI, we concluded that the patient might have bilateral RDOH initially presenting in the left hip. After hospitalization, the patient received physical therapy that included hot pack, interferential currents, phonophoresis for the right hip, and orthopedic rehabilitation program for both hips. His medical treatment comprised oral glucosamine-chondroitin (1500–1200 mg/day) and NSAIDs. After three 3 weeks, the patient's complaints of right hip pain and antalgic gait were improved. His pain decreased to 3 on VAS. His clinical recovery had progressed as seen at a visit at 3 months.

The etiology of RDOH remains unknown, and no evidence of infectious, neurologic, metabolic, or inflammatory disease has been observed in RDOH cases. Patients complain of hip pain and difficulty in walking. Radiographic features include narrowing of the joint space, bony destruction, flattening of the femoral head, and osteophytes with or without acetabular involvement. These features can lead to an improper diagnosis of septic arthritis, inflammatory arthritis, osteonecrosis, and Charcot arthropathy. On MRI, increased synovial fluid, synovitis, and bone marrow edema may be seen (1-5). As well, rapid chondrolysis, defined as a joint space narrowing greater than 2 mm or 50% in 1 year, can also be observed (6).

Our patient had hip pain and gait difficulty, started two mounts ago. Osteoarthritic features of the left hip on radiography, as well as the bone marrow edema and joint effusion in the right hip and subchondral cysts in the left hip on MRI were detected. There were not other features related to a predisposition for rapidly destructive arthropathy. Although the gender and age of the patient were unusual for RDOH, the clinical and radiological features were consistent with bilateral RDOH initially presenting in the left hip. No deterioration was observed in the patient's progress after starting physical therapy, rehabilitation, and medical treatment. This outcome may be related to the

early recognition of the disease and imitation of treatment.

In RDOH, the majority of patients require total hip arthroplasty. In patients who have hip pain and feature a rapid osteoarthritic radiographic progression, RDOH should also be considered in the differential diagnosis, and conservative treatment should be started immediately.

Informed Consent: All participants provided informed consent in the format required by the clinical research ethics committee of University of Health Sciences, Diskapi Yildirim Beyazit Training and Research Hospital.

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