



FIGURE 1. Initial anteroposterior radiograph of the left hip. The femoral head has a rounded contour and the joint space is maintained.

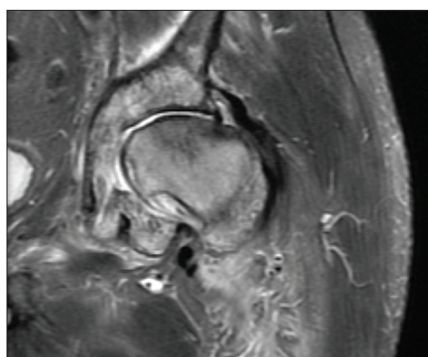


FIGURE 2. Coronal, short-tau inversion recovery, magnetic resonance image of the pelvis without contrast showing bone marrow edema in the left femoral head/neck and acetabulum, with increased signal intensity. There is a joint effusion and edema in the surrounding soft tissues as well.

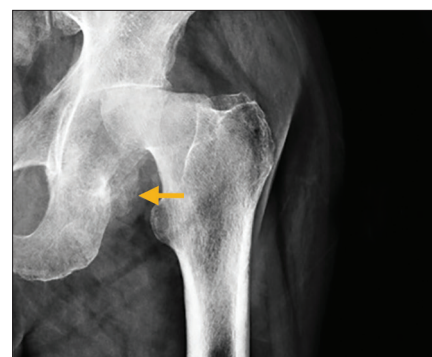


FIGURE 3. Repeat radiograph, 18 weeks after the initial radiograph, showing the absence of the superior portion of the femoral head with flattening of the remaining portion of the bone. The femur has migrated superiorly and laterally in the joint, with marked narrowing of the superior joint space. A bone fragment projects over the inferior joint space (arrow).

Atypical Clinical Presentation of Rapidly Progressing Femoral Head Avascular Necrosis

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A 51-YEAR-OLD MAN PRESENTED TO an urgent care facility 2 weeks after onset of left lateral hip and buttock pain. Radiographs were noncontributory (**FIGURE 1**). He received an intra-articular hip injection without improvement. Due to persistent pain at 4 weeks, he sought assessment by an orthopaedist, who referred him to physical therapy starting the subsequent week.

The patient's medical history was unremarkable and negative for risk factors of avascular necrosis.¹ Primary impairments included hip pain, hypomobility, and weakness consistent with gluteal tendinopathy. He responded to femoroacetabular joint mobilization and hip-strengthening exercises, with decreased pain and improved hip mobility in the initial 2 visits. Following 2 weeks of in-

ternational travel, the patient returned to physical therapy and reported an increase in pain without any associated injury or change in activity level. Reassessment identified elevated symptom irritability, new onset of night pain, altered gait, and decreased hip motion. Joint mobilization and exercise did not improve the symptoms, unlike the initial treatment sessions. Tramadol and cyclobenzaprine, prescribed by his primary care physician, did not provide relief. Due to the worsening clinical presentation, he was referred back to the orthopaedist for additional evaluation.

Magnetic resonance imaging was ordered and demonstrated abnormal femoral head and acetabular contour, extensive bone marrow edema, and a complex joint effusion (**FIGURE 2**). He

was diagnosed with femoral head avascular necrosis. There was no laboratory evidence of infection or other systemic disease. Repeat radiographs (**FIGURE 3**) demonstrated marked femoral head deformity. He underwent a left total hip arthroplasty 7 months following initial onset. Intraoperative tissue biopsy was negative for infection or neoplasm. He recovered without complications.

This case describes a rapid progression² of hip avascular necrosis in the absence of characteristic risk factors or trauma, and the integration of musculoskeletal imaging into physical therapy practice. ● *J Orthop Sports Phys Ther* 2017;47(3):217. doi:10.2519/jospt.2017.6483

References

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