A 40-year-old man was referred to physical therapy by his primary care physician for a chief complaint of proximal left groin/quadriceps pain, which had been present for the past 3 months after initiating a running program. Since the time of onset, his symptoms had worsened and running increased the pain. No diagnostic imaging had been completed.

Observation revealed a normal gait. While the patient had decreased left hip flexion and internal rotation range of motion due to pain, bilateral lower extremity strength was normal. There was no tenderness with palpation.

In addition to initiating a physical therapy treatment plan, the referring physician was consulted to discuss possible diagnostic imaging, primarily due to the worsening symptoms and loss of hip range of motion. Radiographic evaluation, including frog leg lateral and anterior-posterior pelvic views, demonstrated decreased femoral head-neck offset, with prominence of the femoral head-neck junction (FIGURE 1). The patient then underwent magnetic resonance imaging, which demonstrated some prominence of the anterolateral femoral head-neck junction (FIGURE 2). Because the patient’s clinical presentation and diagnostic imaging results were consistent with cam-type femoroacetabular impingement and the patient’s condition did not improve with physical therapy intervention, the patient was referred to an orthopaedic surgeon. The patient subsequently underwent a proximal femoral osteoplasty with labral repair (labral tear was not identified on magnetic resonance imaging).

Cam-type femoroacetabular impingement involves abnormal morphology of the anterior/superior femoral head-neck junction. As a result, there is premature contact between the femur and the acetabular rim with hip movements, which can potentially lead to early degenerative changes and labral tears.

Femoroacetabular Impingement in a Running Athlete

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FIGURE 1. Frog leg lateral radiograph of the left hip, demonstrating decreased femoral head-neck offset, with prominence of the femoral head-neck junction (arrow). This finding could potentially contribute to cam-type femoroacetabular impingement.

FIGURE 2. Proton density-weighted oblique axial magnetic resonance image of the left hip, showing some prominence of the anterolateral femoral head-neck junction (arrow). This finding could potentially contribute to cam-type femoroacetabular impingement.

References