

Acetabular Labrum Tears

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An athlete complains of a gradual onset of pain deep within his or her anterior groin. Kicking a ball with the medial border of the foot may cause a sharp pain with a catching sensation. The hip may feel as if it were popping out of the joint. Consider a case involving a ballerina with 10 months of left hip pain.¹ She noticed that the pain originated during a high kick in the abducted position; she felt a sudden catching sensation in the anterior left groin. Treatment, which consisted of rest, iliopsoas strengthening and stretching of the short external rotators of the hip, was unsuccessful. The orthopedic surgeon noticed mild developmental dysplasia in both hips on X-ray and was aware of the association between acetabular dysplasia and labral pathology. Radiographs do not show any specific findings for labral tears. Magnetic resonance arthrography is the diagnostic test of choice, with sensitivity greater than 90 percent.

While the pain is usually in the groin, it could also be in the trochanteric and buttock region. A significant trauma is not necessary to disrupt the labrum - twisting or falling may be causative. The injury is usually caused by the hip joint being stressed in rotation. The pain could be acute or insidious. The most common complaint is discrete episodes of sharp pain precipitated by pivoting or twisting. Clicking or catching is common but not always present. Activities that involve force adduction of the hip joint in association with rotation in either direction tend to aggravate.³ The majority of labral tears (up to two-thirds) are located anteriorly.¹

It has only been during the past decade that acetabular labrum tears have been recognized as a cause of groin pain, but a recent study found that in more than 20 percent of athletes presenting with groin pain, these tears were present.⁴ The acetabular labrum deepens the hip socket, as does the glenoid labrum for the shoulder, but the hip socket is much deeper than the shoulder and probably does not depend on the labrum as a choke block, as does the shoulder. It is thought that the labrum may enhance hip stability by providing negative intra-articular pressure during hip distraction by partially sealing the hip joint.⁵ Another possible labral sealing function is in enhancing a fluid film lubrication mechanism, which helps prevent direct contact of the joint surfaces and distributes the applied force more evenly across the cartilage surface.⁶

Hip tests that compress the labrum use abduction and adduction with rotation. The following represent some of the tests that have been used to suspect an acetabular labral tear: flexion, adduction and internal rotation of the hip joint for anterior superior tears; passive hyperextension, abduction, and external rotation for posterior tears.⁷ Fitzgerald describes tests to distinguish anterior from posterior tears.⁸ For anterior labral tears: acute flexion of the hip with external rotation and full abduction, followed by extending the extremity with internal rotation and adduction back to the neutral position on the table. Pain with or without a click is probable for an anterior labral tear. For posterior labral pain, begin with a fully flexed, adducted internally rotated hip that is brought into extension with abduction and external rotation to the neutral position on the table.

Most of the time, clicking in the hip area is due to the iliotibial tendon snapping over the greater trochanter or the iliopsoas snapping over the femoral head. Pain and clicking using the above labral compression tests should rule out these areas. Cyriax's technique for treating a loose body in the hip may possibly reduce the labral pressure.⁹ Treatment might begin with protected weight-bearing for four weeks. About 13 percent of patients respond to this method.¹⁰ Arthroscopic debridement is usually quite successful.

References

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