Athletic Hip Injuries
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Treatment
Since these injuries are common in elite athletes, special considerations to injury timing, the athlete’s sports season, and level of athlete must be taken into consideration when developing a treatment plan; however, initial management should begin with rest/activity modification, non-steroidal anti-inflammatory drugs (NSAIDs), and physical therapy (Figure 2). Pain control and reduction of symptoms should be emphasized at the onset. Stretching in the acute time period should be avoided to prevent aggravation with initiation of pain-free passive range of motion once the athlete is without pain. Rehabilitation should focus on Pilates-based core strengthening and stability with correction of any muscle imbalance. Improved core strength may allow for better dynamic control of pelvic tilt and obliquity to avoid positions of mechanical intra- or extra-articular impingement. After a period of rest and muscular training, gradual pain-free progression to sports may be possible. Some training modification might need to be implemented.

Shoulder, elbow, and knee related sports injuries are well publicized in the mass media; however, athletic hip injuries historically have garnered little attention. Although hip injuries account for 6 percent or more of all sports injuries,1-5 they remain some of the most difficult diagnostic and management dilemmas that a team physician faces. These injuries are seen in high-level athletes that participate in sports that require rapid acceleration and deceleration during cutting and twisting. To add to the diagnostic challenge, there are numerous intra-articular disorders and extra-articular soft tissue restraints about the hips that can serve as pain generators in addition to referred pain from the lumbar spine, bowel, bladder, and reproductive organs. It is therefore imperative that sports medicine providers have a high index of suspicion when evaluating hip and pelvic related disorders. These conditions can be debilitating for an in-season athlete and often require a timely diagnosis to provide appropriate intervention.

Hip and pelvis related injuries can happen in isolation, but may also occur as an “athletic hip triad” consisting of adductor strains, osteitis pubis, and athletic pubalgia/sports hernias (Figure 1).

Figure 1. Schematic diagram of Athletic Hip Triad with femoroacetabular impingement at the epicenter.
Figure 2. Treatment algorithm for athletic hip injuries.

Patient presents with groin pain

History and physical exam

Other Dx more certain
Investigate other causes: LBP, bowel, bladder, reproductive

Dx uncertain
Investigate Ultrasound +/- MRI

Dx: core muscle injury, FAI, labral tears
Trial of non-op management

Unsuccessful

Diagnosis

FAI/labral tear
Ortho
Hip arthroscopy

Core muscle injury
Gen surgery
CMI repair: lap v open

Successful
Return to play

Post-op PT

Continuation of symptoms
Re-eval to assess need for additional surgery

Improved
Return to play
Athletic Hip Injuries continued—

such as avoidance of deep hip flexion and low repetition, heavy weight strength training of the lower extremity during this recovery phase. Injections can be considered for recalcitrant pain including platelet-rich plasma (PRP) for adductor strains and corticosteroid injections or prolotherapy for osteitis pubis but firm evidence regarding the longer term effectiveness of these injections is lacking.

Athletes who have been accurately diagnosed with athletic pubalgia often fail non-operative intervention and ultimately undergo operative management in order to alleviate symptoms. There is no consensus regarding preferred surgical technique; however, there are three general categories of repair: open techniques with or without mesh reinforcement, laparoscopic techniques with mesh, as well as broad pelvic floor repairs with or without adductor releases and neurectomies. These various surgical approaches have an 80–100 percent return to sports rate with the athlete able to return to sporting activities within 4 to 6 weeks with current rehabilitation protocols. In addition to the repairs for core muscle injury, consideration should be taken to evaluate for intra-articular pathology and address the presence of FAI and labral injuries if a confounding source of symptoms or underlying cause for the pathology. There is a small subset of athletes that present with both symptomatic intra-articular pathology and a core muscle injury and management of both of these may be necessary to improve outcomes. Overall, this athletic hip triad previously would have led to the early retirement of athletes as “groin pulls/hip flexor injuries” that failed to resolve. Recent advances regarding the underlying causes and pathophysiology/patoanatomy of these injuries have led to a more accurate diagnosis of these complex hip and pelvic injuries with improved clinical outcomes and shorter recovery times for these athletes.

References