POPLITEAL TENDINOPATHY IN A COLLEGIATE ROWER
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**Background:** A 20 yr. old, male college rower was seen in March 2005 c/o sharp pain in the posteriorolateral aspect of left knee. History was negative, MOI insidious, and inspection unremarkable. Pain increased during the "catch" portion of rowing stroke, and periodic clicking when walking fast, descending stairs & hills, and during sit-stand maneuvers. Evaluation revealed undifferentiated point tenderness throughout arcuate ligament complex, and positive Ober’s. Relevant MMT & ligamentous testing WNL. Initial impression was left biceps femoris tendonitis & iliobial band friction syndrome, and patient was treated accordingly. Pt. returned to campus reporting mild improvements, except when running downhill & squatting. Upon return to rowing, a recurrence was noted that worsened to affect ADLs. More detailed re-evaluation, September, 2005 by second party revealed more complex pathology, as patient c/o increased pain walking, descending, during transition from flexion--extension during squat maneuvers, and intense rowing. Specific point tenderness near the musculotendinous junction of the popliteus muscle was noted. Clinical examination revealed crepitus & discomfort with anterior fibular translation, a (+) Garrick test, (-) Ober’s, pain with resistive knee flexion and lower leg IR, and protective varus and hyperextension “hitches” during stance phase of gait. MRI revealed no osseous or soft tissue abnormality, and all other musculoskeletal tests were unremarkable. Popliteal tendinosis was reformulated impression based primarily on lack of edema in MRI and clinical exam. **Differential Diagnosis:** Baker’s cyst, tumor, lateral meniscal tear, hamstring injury, gastrocnemius tendon calcification, common peroneal nerve entrapment, popliteal artery entrapment syndrome, and arcuate ligament complex dysfunction. **Treatment:** Initially, the patient was treated with standard anti-inflammatory and restorative measures for the hamstring and IT band, while continuing to compete in intercollegiate rowing. He was placed on Naprosyn, 500 mg, b.i.d. No remarkable relief was noted before departing campus for summer break with an aggressive rehab plan for the hamstring & IT band. Following the re-evaluation, treatment was redirected towards the popliteal tendinopathy. Athlete was counseled to d/c rowing, squats, and uneven surface ambulation for up 4-6 weeks, prescribed a Medrol Dosepak, and fitted with a compressive wrap to stabilize the proximal tibiofibular joint, and relieve popliteal tension. Deep friction massage and laser/light therapy was added to help with collagen reorganization. Initial response to adjusted treatment was favorable, with noted reduction in pain and soreness over 2nd week. Specific exercises to stress and strengthen the popliteus musculotendinous complex were slowly initiated after adequate protection period in order to return athlete to play. **Uniqueness:** Most popliteal injuries reportedly occur in sports involving running and cutting or with trauma to the posterolateral corner of the knee, and are often difficult to differentiate clinically. Chronic knee injuries in oarsmen are rare (10%), and popliteal tendonopathies are exceptional in cruciate stable, atraumatic knees. Tendinosis injuries are non-inflammatory conditions involving collagen degradation; thus requiring more conservative management and specialized rehabilitation for restoring function. An analysis of rowing mechanics may be helpful in such cases, as here it revealed an increased varus, flexion-rotation position of the left knee during the catch phase of the stroke motion that contributed to our patient’s pathogenesis. Considering these elements, this case was difficult to differentially diagnosis and treat. **Conclusions:** When considering posterolateral knee pain, the anatomical complexity of the posterolateral corner makes clinical evaluation, management and rehabilitation of popliteal pathology difficult. However rare, popliteal pathologies are often misinterpreted as hamstring and IT Band pathology. Our rower was allowed to participate with popliteal pathology for 5 months, furthering the severity of his pathology and lengthening his convalescence. Thus, various internal and external factors must also be considered.