Labral Refixation with Femoroacetabular Impingement  
Orlando C, Wujciak D, Divirgilio R: Kean University, Union, NJ

Background: A 20-year-old male baseball player suffered a partial tear of his left anterior superior acetabular labrum. Athlete stated that while warming up for a game the previous day he felt a pull as he pushed off to turn and run. Athlete worked through the pain but the pain increased when he got home that night. The initial injury report stated that the athlete had heard a pop at the anterior superior iliac spine (ASIS) when stretching. ROM: missing the end range of hip flex, pain with end of knee ext and end of hip flex passively. Strength was diminished with all hip motion and knee flexion. Further evaluation showed that his ASIS and PSIS were not in alignment. The initial assessment stated he had a possible strain and/or tendinitis of his hip flexors or extensors with a possible labrum injury. The initial treatment mainly included flexibility and myofascial release of the lower extremity. He was also advised to see the team doctor. The doctor ordered an x-ray and an MRI. MRI showed a torn left anterior superior acetabular labrum. The doctors' first approach was to try a strengthening program to make surgery the last option. After six weeks of the strengthening treatment the doctor decided surgery was his only option.

Differential Diagnosis: A possible strain or tendinitis was the original assessment because of his complaints during hip movement. It was very difficult to say he suffered a strain specifically because it was difficult to test his strength due to pain. Once an MRI arthrogram was done, a torn left anterior superior acetabular labrum with a femoroacetabular impingement was found. Treatment: First six weeks he completed a rehab program that focused on strengthening his lower extremity and his core while improving flexibility. After six weeks it was decided that surgery was the best option. After surgery specific guidelines were followed in the upcoming weeks. Treatment mainly included biking, scar massages, stretching, ROM exercises, proprioception exercises, core strengthening, and lower body strengthening. The SwimEx and different exercises using the TRX apparatus were implemented later in his treatment along with hip joint mobilization. The modalities used were ice and cryocuff. During the thirteenth week of treatment he began jogging on the treadmill and performed side lunges with the TRX. He is currently in his fourteenth week of treatment and his upcoming treatment will include plyometric exercises with the TRX and different jumping exercises, along with treadmill running. Uniqueness: The athlete had a cam impingement with a chondral flap tear. Femoroacetabular impingement can be caused by either a cam or pincer impingement or both can be present at the same time. Cam impingement leads to constant acetabular chondral and labral injury. In his case, the shape of his acetabular not only caused a labral tear but also a femoroacetabular impingement. Conclusion: Labral tear with femoroacetabular impingement is an injury that does not occur often. The athlete was first assessed with a strain and tendinitis possibly in his hip labrum. Further investigation revealed a cam impingement that caused a labral tear in his left hip due to the size of his acetabular. Relevant Evidence: A study by Knee Surgery, Sports Traumatology Arthroscopy showed that having the athlete perform a maximal squat could be used as a screening exam to see if they could be susceptible to a cam-type femoroacetabular impingement. Even though intra-articular injuries represent only a small percentage (5% in the NFL) of hip injuries, they account for the largest number of days out of sport. Word Count: 601