Background: A 19-year-old Division I collegiate female lacrosse mid-fielder reported to the athletic training room with deep, left hip pain noticeable during squatting. The patient presented the “C-sign” when asked about location of pain. Femoral impingement tests were negative and range of motion and manual muscle testing were strong and painless on initial evaluation with no presence of neurological symptoms. An acetabular labral tear with possible femoroacetabular impingement was suspected and treated conservatively. The objective examination was unremarkable and only squatting was painful, so the athlete was permitted to continue practicing and playing in games. **Differential Diagnosis:** Acetabular Labral Tear, Femoroacetabular Impingement, Hip Flexor Strain, Athlete Pubalgia.

**Treatment:** The athlete was initially evaluated by the team’s certified athletic trainer (ATC) and sent to the team physician for further investigation. The athlete, after seeing the physician, was told to keep playing with modified activity, but the ATC maintained that diagnostic imaging was necessary. Between the initial evaluation and MRI (magnetic resonance image), the athlete heated and stretched before practice and iced after practice, continuing to play in games as normal. From the MRI, the radiologist indicated an observable Grade II stress reaction of the proximal diaphysis of the left femur centered 11cm below the left greater trochanter. The team physician immediately removed the athlete from practice and put her on crutches due to pain while walking. **Uniqueness:** Femoral stress fractures are uncommon, specifically in multi-planar sport athletes, with only 7-10% occurring in the femur. Femoral stress fractures are most commonly seen in the femoral neck and are difficult to diagnose due to non-specific findings during evaluation and the many possible differential diagnoses to consider. Females have unique risk factors contributing to an increased likelihood of stress fracture, i.e. the female athlete triad. Femoral pathologies may refer pain to the hip, making a definitive diagnosis challenging. Recommended treatment is conservative, beginning with non-weight-bearing (NWB) or partial weight-bearing for the first 2-4 weeks, 2-4 weeks of NWB cardiovascular activity and 2-4 weeks of gradual return to activity. **Conclusion:** It is important for ATCs to recognize atypical case patterns and to be able to complete the most comprehensive evaluation to avoid missing key features. Because femoral stress fractures are often not initially recognized, it is important to fully investigate injuries and hip pain. If diagnosis of a stress fracture is delayed, potential worsening of the condition may result in poor outcomes. **Relevant Evidence:** MRIs have a sensitivity, specificity, and positive predictive value of 100% and are considered the gold standard for diagnosing stress fractures. With sufficient rest and return to activity protocol athletes are able to make a full recovery in about 12-14 weeks after diagnosis of a stress fracture. **Word Count:** 447