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Abstract

In this case report, The athlete reported to the athletic training room with anterolateral swelling and a sharp pain in his left ankle. He complained of feeling and hearing a “pop” when he rolled his ankle during a game. He was later referred to a physician for an MRI and was diagnosed with a grade 1 syndesmosis ankle sprain of the anterior and posterior inferior tibiofibular ligaments. The patient was admitted to physical therapy for conservative management of the ailment. This review will aid clinicians in identification and conservative treatment of syndesmosis ankle sprains.

Introduction

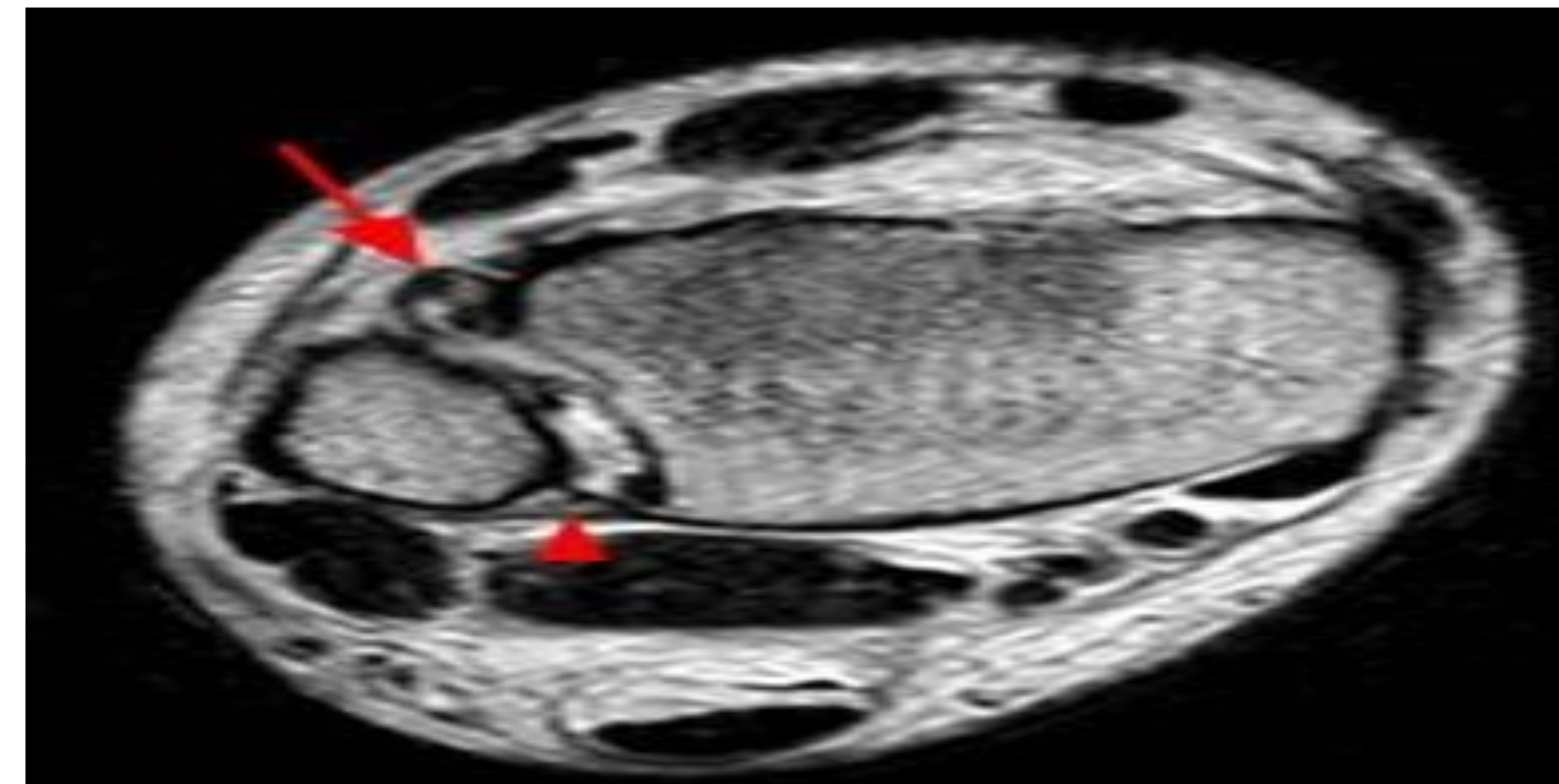
Ankle sprains present a great deal of challenges to both the athlete and the healthcare clinician. It is often hard to diagnose the exact ailment which has proven to be detrimental to the athletes return to play timeline and reinjuring the involved ankle. Ankle sprains, particularly syndesmosis sprains, present with a great deal of pain and instability. Early intervention and proper management is crucial for optimal healing and returning to play on a reasonable timetable.

Purpose

This case highlights the clinical presentation, diagnosis, and conservative management of a syndesmotic ankle sprain and serves to create awareness of this not so common and often times underdiagnosed injury

Background

- 28 year old male
- Minor league hockey player
- 5’ 11” 195 pounds
- No previous history of ankle injury



Differential Diagnosis

- Syndesmosis ankle sprain
- avulsion fracture
- distal tib-fib fracture
- anterior muscle group strain
- lateral muscle group strain
- lateral ankle sprain

Clinical Presentation

- Pain and tenderness over anterolateral malleolus
- Swelling over anterolateral aspect of ankle and dorsum of foot
- limited and weak AROM in all planes particularly dorsiflexion and eversion of ankle
- Limited PROM in all planes particularly dorsiflexion and eversion of ankle

Treatment

- Modalities (heat packs, US, Iontophoresis, and Ice with compression)
- NSAID’s
- Joint and soft tissue mobilizations
- Stabilization, ROM, and strength exercises for the ankle
- Bike for cardio maintenance

Uniqueness

Syndesmosis ankle sprains account for about 1-18% of all ankle sprains which make them fairly uncommon. However, they have been notoriously underdiagnosed in the past and have been treated as a more common lateral ankle sprain. This type of injury can only be truly diagnosed with MRI and the amount of time lost from competition is typically unknown and widely variable. Early recognition and proper management of these injuries is crucial to the amount of time lost, yet it is not fully understood how to best treat these types of ankle sprains. Research indicates that syndesmotic ankle sprains can lead to long term consequences of associated chronic pain, prolonged disability, recurrent ankle sprains, and heterotopic ossification.

Conclusion

This case presents the clinical presentation, diagnosis, and conservative management of the uncommon syndesmosis ankle sprain. It is very important for Athletic Trainers to recognize this type of ankle sprain in order to treat them properly and allow for enough time for the athlete to make a full recovery before returning to play. The consequences can leave the athlete unable to participate for greater lengths of time if overlooked and have detrimental effects on the athletes performance due to other conditions that may arise from reinjury or chronic ankle instability.

