Synovitis Following a Lateral Ankle Sprain in Female Collegiate Volleyball Player

Keisha Delahaye, ATS; Merritt Henderson, MS, LAT; Shawn Felton, EdD, ATC, LAT
Florida Gulf Coast University, College of Health Professions and Social Work, Fort Myers, FL 33965

Abstract
In this case review the athlete reports to the athletic training room with a lateral ankle sprain. After 10 weeks of rehabilitation point tenderness, slight effusion over the sinus tarsi and range of motions deficits were still present. An MRI revealed extensor digitorum longus tendonitis. Her right ankle was immobilized for 3 weeks, after the immobilization the ankle was rehabilitated with a similar protocol as before. Her symptoms remained unchanged. She underwent arthroscopic debridement which revealed synovitis.

Clinical Presentation
- Pain
- Swelling
- Non-weight bearing
- Decreased ROM
- Crepitus over ATFL
- No previous ankle history

Differential Diagnosis
- Ankle impingement syndrome
- Extensor digitorum tendonitis
- Osteochondral defect

Treatment

Acute:
RICE, Crutches, and pain medication.

Operative:
Athlete underwent arthroscopic debridement of the lateral gutter of ankle.

Post-operative:
1 week: removal of sutures
2 weeks: removal of post-operative splint
3 weeks: Full weight bearing

Rehabilitation
Rehabilitation began 2 weeks following surgery, and extended over a period of 6 weeks. Athlete was seen 3 times a week.

Stage 1
Restore ankle range of motion and strength, corrected gait mechanics, core strengthening, and stationary bike to maintain cardio.

Stage 2
Proprioception and total body strengthening

Stage 3
Sports specific exercises, plyometric, and agility drills.

Return to play
Athlete will be allowed to return to play when full range of motion is restored and jumping and landing are pain free.

Conclusion
Ankle sprains are a common injury in the athletic population and many times not perceived as a serious injury. However, it is important to be able identify when a simple injury has begun to advance, so the proper measures can be taken.