Arthroscopic and Magnetic Resonance Image Appearance and Reconstruction of the Anterior Talofibular Ligament in Cases of Apparent Functional Ankle Instability

Reference:

Scientific Literature Review

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Podiatric Relevance:
Ankle sprains are a commonly encountered problem seen by podiatrists. Normally conservative treatment is successful, yet, some patients end up with chronic ankle instability. Mechanical instability can be detected with clinical findings such as an anterior drawer test, or stress radiographs. These tests may not be adequate in detecting disruptions in the anterior talofibular ligament (ATFL) or calcaneal fibular ligament (CFL). Some patients have normal clinical findings, but subjectively have ankle instability.

Methods:
Fourteen patients were included in this retrospective review. Inclusion criteria were subjective feeling of instability 6 months or more after ankle sprain where clinical findings and stress radiographs did not demonstrate instability. All fourteen patients underwent a magnetic resonance image (MRI), ankle arthroscopy with debridement if necessary, and lateral ankle stabilization with autogenous gracilis tendon.

Results:
MRI revealed 5 cases of disruption in the ATFL, 2 cases of narrowing of the ligament, 4 cases of focal lesion, and 3 had a normal MRI. Arthroscopy showed 3 cases of absence of ligament structure with scar tissue formation, 9 cases of partial ligament tears and scar tissue, 2 cases of abnormal tendon attachment to the fibula or talus. The mean American Orthopedic Foot Ankle Society Ankle Hindfoot (AOFAS) score preoperatively was 66.2 +/- 3.2 and at two years postoperatively scores were 92.3 +/- 4.4 points.

Conclusions:
Ankle arthroscopy demonstrated ligament pathology in all the patients. MRI identified some pathology in 11 or 14 patients. Despite a normal clinical exam and normal stress radiographs all participants in the study had abnormalities in the ATFL as demonstrated by arthroscopy and/or MRI. Pain lasting more than six months after ankle sprain warrants MRI and the clinician should consider arthroscopy even in the absence of abnormal clinical findings.