Functional Outcome Assessment of Medial Ankle Ligament Repair – In Global and Isolated Medial Instability

Foot & Ankle Category: Ankle

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Introduction
Ankle sprains are one of the most common musculoskeletal injuries and most often involve injury to the lateral ligament complex with an inversion mechanism. A subset of patients have a concomitant medial sided injury, leading to global ankle instability with even greater functional limitations. Another group of patients with an eversion mechanism have an isolated medial sided injury. This can lead to isolated medial ankle instability. We looked to evaluate the clinical and functional outcomes of these two groups of patients that underwent surgical repair of the medial ankle ligamentous complex without allograft.

Methods
A retrospective review was performed at our institution to identify patients undergoing a medial ankle repair. Medical record and radiographic reviews were performed. Patients younger than 18 years or those with peripheral neuropathy, rheumatoid arthritis or degenerative pes planovalgus were excluded. Patients were contacted and returned for a prospective history, physical examination, radiographs and functional testing by an independent surgeon. Patients also completed American Orthopaedic Foot and Ankle Society (AOFAS) Hindfoot and Foot Function Index (FFI) questionnaires.

Results
24 patients were available to for follow-up. The average follow-up was 40 months after surgery (range 8-62 months). Nine of the 24 patients had global ankle instability, medial and lateral, and a Brostrom-Gould procedure performed concomitantly with the medial sided repair. Of the 24 patients, 17 had resection of associated antero-medial osteophytes and 4 patients had a medializing calcaneus osteotomy during the index procedure. The average AOFAS Hindfoot Score was 86.5 (58-100) and the average FFI was 11% (0-70%). One of the 24 patients (4%) had clinically detectable laxity. Twenty-two of the 24 patients (92%) would have the surgery performed again, while 2 were ‘unsure’. Three patients had additional procedures performed after the index procedure; none were for revision of the medial sided repair.
Conclusion
Medial-sided ankle injuries are less common than isolated lateral ankle disruptions and are often missed or overlooked. These injuries can lead to functional limitations and pain. Medial ligamentous repair in isolation or when combined with lateral ligament reconstruction can improve subjective symptoms and is associated with good functional scores at intermediate term follow-up.