COMPARATIVE STUDY AFTER ANATOMICAL RECONSTRUCTION OF DORSAL CALCANEOCUBOID LIGAMENT VS. LATERAL ANKLE LIGAMENT

Nauck Tanja, Lohrer Heinz
(Institute for Sportsmedicine, Germany)

Background:
Isolated calcaneocuboid joint instability is a rare condition. It has to be regarded in the differential diagnoses of lateral ankle ligament instability. Both pathologies may result in recurrent giving way. If conservative treatment fails, surgery is indicated. Analogue to repair of lateral ankle ligaments a surgical technique has recently been introduced for anatomic reconstruction of chronically unstable calcaneocuboid joints.

Methods:
A series of five consecutive young female athletes, suffering from chronic calcaneocuboid instability were treated by periosteal flap augmented anatomic repair and retrospectively matched and compared to a group of patients who underwent anatomic lateral ankle ligament repair. Follow up investigation included subjective outcome (Foot and Ankle Outcome Score, Foot-Funktion-Index and the American Orthopaedic Foot and Ankle Society ankle hindfoot scale), findings from physical examination, stress radiographic analysis and neuromuscular performance (isokinetic testing, posturometry, one-legged drop and long jumps). The study was performed in a case control design.

Results:
At follow-up (5-61 months after surgery) outcome scores in both groups were excellent. Radiographic talar tilt, anterior talar drawer, and calcaneocuboid varus stress values were normal in both groups. Neuromuscular performance revealed little advantage in favor of the lateral ankle repair group.

Conclusions:
About 3-6% of all “ankle sprains” lead to calcaneocuboid joint lesions. Results following periost augmented anatomic lateral ankle or calcaneocuboid ligament repair equally lead to good results in athletic populations.

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