Prognosis of Multidirectional Chronic Ankle Instability

Foot & Ankle Category: Sports

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Introduction
Lateral ligament reconstruction for chronic lateral ankle instability (CAI) do not fully address successful outcome. CAI has often several kinds of associated lesions or instability. We especially focus on the multidirectional chronic ankle instability (MCAI) as terms of association of chronic medial ankle instability or, and chronic syndesmotic instability. And, we evaluate the incidence of MCAI and compare the operative results between MCAI and CAI.

Methods
279 military patients with ankle instability which performed ligament reconstruction were evaluated retrospectively with prospectively collected data between May 2007 and March 2010. We diagnosed the medial ankle instability with medial drive through sign under 2.7mm diagnostic arthroscopy, the syndesmotic instability with proving more than 4mm anterior tibio-fibular diastasis. We evaluated the incidence of repairs of medial ankle ligament and syndesmotic fixation with suture button or syndesmotic screw. We divided two groups either combined reconstruction of ankle ligaments (group A, MCAI) or single lateral ligament reconstruction (group B, CAI). We used the American Orthopedic Foot and Ankle Society ankle-hindfoot score (AOFAS score), Visual Analog Scale (VAS) and ankle functional satisfactory scores were carried out.

Results
41 patients (14.7%) has MCAI. The AOFAS score and VAS was improved in both groups after operation. The mean AOFAS score for the group A increased from 65.4 to 82.4 (p<0.05) and for the group B from 68.2 to 89.9 (p<0.05). The mean VAS for the group A decreased from 6.0 to 3.6 (p<0.05) and for the group B from 5.7 to 2.6 (p<0.05). The poor satisfaction by functional ankle score for group A was 24.4% (10/41 patients) and for group B was 5.0% (12/238 patients). The clinical scores and satisfaction of group B was significantly better than group A (p<0.05).

Conclusion
The incidence of MCAI is about 14.7% to need the operation at the ankle instability. And, the operative results of MCAI are less satisfactory compared to the results of CAI.