Long Term Results after Modified Brostrom Procedure Without Calcaneofibular Ligament Reconstruction

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Summary: The long-term surgical results of the modified Brostrom procedure without calcaneofibular ligament reconstruction for chronic lateral ankle instability are good to excellent in functional, clinical, radiologic assessment at 10.6 years follow-up.

Purpose: The purpose of this study is to evaluate the long term result of modified Brostrom procedure without calcaneofibular ligament reconstruction for chronic lateral ankle instability.

Materials and Methods: Thirty (30) patients with chronic ankle instability treated by modified Brostrom procedures without calcaneofibular ligament reconstruction evaluated retrospectively from March 1997 to June 1999. The consecutive series of patients comprised 26 males and 4 females with the mean age was 23 years (16 - 35) at the time of operation. And the mean follow-up period was 10.6 years (range, 9.6-12.4 years). 24 cases (80 percent) of the patients were high level amateur or professional athletes. The operation procedure was only ATFL (Anterior Talofibular Ligament) re-imbrication with IER (Inferior Extensor Retinaculum) reinforcement. For the evaluation of clinical outcome, the clinical charts were reviewed retrospectively. A functional outcome score was obtained on each patient using the scales devised by Hamilton, VAS (Visual Analog Scale) and AOFAS at final follow-up and also, we got the result of physical examination and stress radiographs at final follow up.

Results: The mean AOFAS was 91 of 100 at final follow up. The mean VAS scores were 87 at final follow up. Of the 30 patients, there were 12 excellent, 16 good, 2 fair in Hamilton classification as a whole. The mean anterior translation value of stress X-ray was 6.91 mm at ipsilateral, 6.12 mm at contralateral side. And the mean talar tilt angle of stress X-ray was 3 degrees at ipsilateral, 2.54 degrees at contralateral side. In the physical examination, anterior drawer test was done, there are 13 grade 0, 13 grade 1, 4 grade 2. 28 patients of the total cases restored to pre-injury activity level.

Conclusion: The long-term surgical results of the modified Brostrom procedure without calcaneofibular ligament reconstruction for chronic lateral ankle instability are good to excellent in functional, clinical, radiologic assessment at 10.6 years follow-up.