Comparison of Clinical Outcomes in Patients with Generalized Ligamentous Laxity and without Generalized Laxity in the Arthroscopic Modified Broström Operation for Chronic Lateral Ankle Instability
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Introduction/Purpose: The arthroscopic modified Broström operation (MBO) has been developed and frequently used to treat chronic lateral ankle instability (CLAI). Clinical outcome of arthroscopic MBO was reported as good or excellent. But there were no report about comparison of clinical outcomes between patients with generalized ligamentous laxity (laxity) and without generalized ligamentous laxity (no laxity). The purpose of this study is to compare the clinical outcomes of the group with generalized ligamentous laxity and without generalized ligamentous laxity in chronic lateral ankle instability.

Methods: From January 2013 to November 2015, Arthroscopic MBO was performed in 99 patients for CLAI. We retrospectively analyzed 99 consecutive patients were included in terms of inclusion criteria. All patients had giving way, persistent pain and an inability to resume one’s preinjury activity level for more than 6 months. Patients were divided into 2 groups: laxity group (24 ankles) and no laxity group (75 ankles). Evaluation was performed preoperatively and at a final follow-up a minimum of 12 months postoperatively using the American Orthopedic Foot and Ankle Society (AOFAS) hindfoot ankle score, pain Visual Analogue Scale (VAS)(0~100), and talar tilt angle.

Results: In terms of radiological outcomes, the preoperatively talar tilt angle was greater in patients in laxity group than in no laxity group (p < .001). The last follow-up talar tilt angle was the same between in patients in laxity group and in no laxity group (p =0.413). But preoperative-last follow up difference was found between two groups (p=0.03). The variation from preoperative to last follow up talar tilt angle showed significant greater value in laxity group (-6.9 ± 5.2) than in no laxity group (-4.2 ± 4.2)(p=0.03). In terms of clinical outcome, last follow up AOFAS and VAS in all groups were improved than preoperative scores (27.5 ± 23.7, 24.1 ± 18.4, respectively). But preoperative-last follow up differences were not found between two groups (P=0.52).

Conclusion: In terms of radiologic outcomes, there was difference outcome variation between two groups, in terms of clinical outcomes, there were no difference outcome variations between two groups. All groups achieved successful clinical and radiological last follow up outcomes even though there was difference outcome variation in talar tilt. Arthroscopic MBO should be considered as a reasonable method in patients who have chronic lateral ankle instability regardless of generalized ligamentous laxity.