

Proximal Medial Gastrocnemius Recession and Stretching Versus Stretching as Treatment of Chronic Plantar Heel Pain: A Randomized Controlled Trial 6-Year Results

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INTRODUCTION:

Chronic plantar heel pain is a common disorder that can lead to substantial pain and disability. Our previous publication demonstrated that gastrocnemius recession with a stretching program was a safe and effective surgical treatment option. The aim of this study was to evaluate the long-term clinical and biomechanical outcomes of gastrocnemius recession and stretching compared with a stretching exercise protocol for patients with plantar heel pain lasting more than 12 months. No other study has examined the long-term effects of the procedure.

METHODS:

Forty patients with plantar heel pain lasting more than 1 year were randomized to a home stretching exercise program only or to surgery consisting of a proximal medial gastrocnemius recession in addition to stretching exercises. The main outcome was the American Orthopaedic Foot & Ankle Society (AOFAS) ankle-hindfoot score at 6 years. Secondary clinical outcomes were the Manchester-Oxford Foot Questionnaire (MOxFAQ), the Short Form-36 (SF-36), and visual analogue scale (VAS) pain scores. The biomechanical outcome parameters were ankle dorsiflexion, Achilles function evaluated by a test battery with 6 independent tests, and plantar pressure evaluated by pedobarography. All data were obtained at baseline, 12-months, and 6-year follow up.

RESULTS:

The AOFAS score increased from 59.5 (42-76) at baseline to 90 (55-100) for the surgical group and from 52.5 (37-73) to 78 (46-100) for the nonsurgical group at 6-year follow up. The VAS score had decreased from 7,6 (3.9-10) to 2,7 (0-10) in the surgical group and 7,1 (1,5-9.5) to 5.3 (1-9) in the nonsurgical group. At six years the average MOxFAQ-score was 26 (0-80) in the surgical group and 50 (9-80) in the nonsurgical group. The AOFAS, VAS pain, and MOxFAQ- scores were significantly better in the surgical compared with the nonsurgical group at 6-year follow up. SF-36 scores, ankle dorsiflexion, Achilles function, and plantar pressure results will also be presented at the conference.

DISCUSSION AND CONCLUSION: Proximal medial gastrocnemius recession with a stretching program was a safe and efficient method of treating chronic plantar heel pain. The effect of the procedure is maintained at six-year follow up.