

**Outcomes After Proximal Medial Gastrocnemius Recession and Stretching vs Stretching as Treatment of Chronic Plantar Fasciitis at 6-Year Follow-up**, Riiser MO, Husebye EE, Hellesnes J, Molund M. *Foot Ankle Int.* 2024;45(1):1-9.

DOI: 10.1177/10711007231205559

Level of Evidence: 1

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There are many conservative and surgical treatment options that can be done to plantar fasciitis for either abating the pain or eliminating the pain at its root. Furthermore, it has been demonstrated that gastrocnemius tightness could lead to reduced ankle dorsiflexion and therefore strain and subsequent pain in the plantar fascia. This randomized controlled trial study attempted to compare clinical and functional outcomes between gastrocnemius recession with stretching and stretching alone in patients with chronic plantar fasciitis.

A level I randomized controlled trial was conducted on initially 40 patients with plantar fasciitis lasting more than 12 months, who were randomly assigned equally to operative and non-operative group. An isolated contracture of the gastrocnemius (IGC), evaluated by the Silfverskiöld test, had to be present. The patients in the non-operative group received standardized stretching exercise from a physical therapist (PT) for 3 months. The patients in the operative group underwent proximal medial gastrocnemius recession (PMGR) surgery and then subsequently received the same standardized stretching exercise from PT for another 3 months after surgery. Due to loss of follow up and crossing over from non-operative group to operative group, the final numbers were categorized as follow: 15 operatively treated patients, 12 non-operatively treated patients, and 6 crossover patients. The American Orthopedics Foot & Ankle Society (AOFAS) score, MOxFAQ (Manchester Oxford Foot Questionnaire) score, Visual analog scale (VAS) score, Ankle dorsiflexion, and Achilles complex performance were used as the measured outcomes.

At the initial 1-year follow up, AOFAS score was significantly improved in the operative group (88) compared to non-operative group (65.5). Furthermore, VAS score for pain scale was significantly improved in the operative group (2.8) compared to non-operative group (7.4). Again, at the 6-year follow up, AOFAS score was still statistically significantly better compared to non-operative group. Furthermore, VAS score at the 6-year follow up was statistically significant improved compared to non-operative group. Linear regression analysis showed that MOxFAQ total score and sub-section (Walking/standing, pain and social) scores were statically significant lower in the operative group compared to the non-operative group. While there was no difference in ankle dorsiflexion with knee straight or flexed between both groups, there was statistically significant improvement in hopping and eccentric concentric toe raise (ECTR – 23 kg) for Achilles Complex Test Battery in the operative group compared to non-operative group.

With no major complication to the surgery, proximal medial gastrocnemius recession (PMGR) surgery with a combination of stretching was shown to reduce pain from plantar fasciitis and the effect of the surgery was not reduced after 6 years. There were several limitations to this study including small sample size in both groups with significant amount of cross over, and no differences in ankle dorsiflexion for both non-operative and operative groups. Overall, the author successfully emphasizes that in patients with chronic plantar fasciitis secondary to gastroc-equinus or positive Silfverskiöld test, proximal medial gastrocnemius recession is a safe procedure alleviate the symptoms with good long-term results.



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