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Effectiveness of Intrinsic Muscle Exercises and Plantar Fascia Stretching on Pain and Functional Ability in Subjects with Chronic Plantar Fascitis

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Abstract

Introduction: Plantar fascitis is a degenerative irritation of the plantar fascia origin at the medial calcaneal tuberosity of the heel and surrounding perifascial structures. The plantar fascia plays an important role in the normal biomechanics of the foot and comprises three segments arising from the calcaneus. Common causes are excessive pronation, high-impact activities, improper footwear, tight calf muscles, obesity, and age. The most common plantar fascitis symptoms include pain on the bottom of the foot, near the heel.

Methods: 30 patients with plantar fasciitis were selected for the study based on inclusion and exclusion criteria. All 30 patients received plantar fascia stretching exercises and intrinsic foot exercises for 3 days per week for 6 weeks. The outcome measures were Pain intensity measured by VAS (Visual Analog Scale) and functional ability assessed by the FADI (Foot and Ankle Disability Index).

Results: The results revealed differences in VAS (p= 0.00 >0.05 at 95% Confidence Interval) and in improving Functional Ability in FADI (p= 0.00 >0.05 at 95% Confidence Interval).

Conclusion: This study can conclude that combining Plantar fascia stretching exercises and Intrinsic foot exercises positively improves pain and functional ability in individuals with Chronic Plantar Fascitis.