Plantar Fasciopathy Treated with Dynamic Splinting: a Randomized, Controlled, Trial

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Abstract

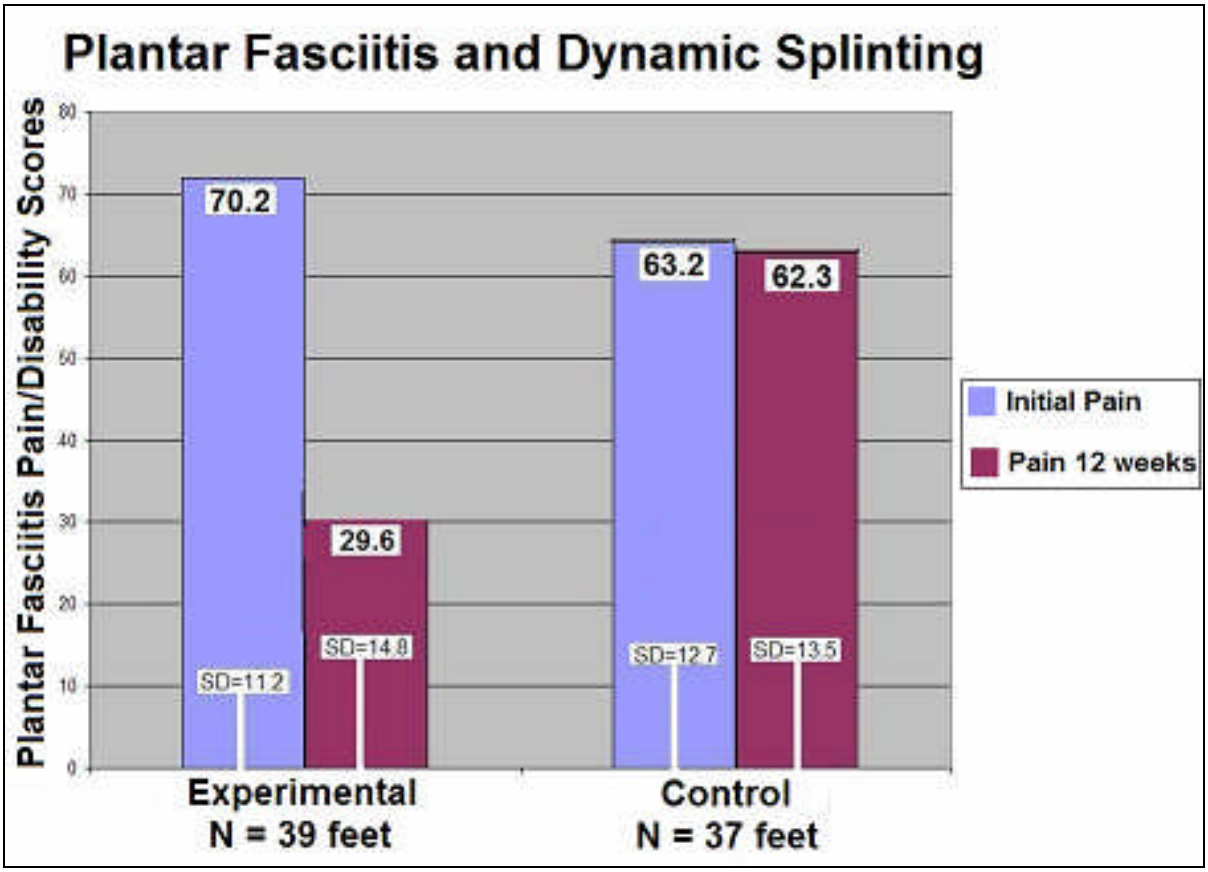
Background: Plantar fasciopathy (or plantar fasciitis) is considered to be one of the most common foot pathologies affecting up to two million Americans each year, and the chief complaint is acute heel pain. Therapeutic protocols for this condition have included stretching exercises, corticosteroid injections, physical therapy, and foot orthoses, but a single modality has not been found to be universally effective. The **purpose** of this study is to determine the efficacy of stretching with Dynamic Splinting (DS) for treatment of plantar fasciitis.

Methods: Sixty patients (76 feet) were enrolled in this study from four different clinics across the USA, and the duration of this study was 12 weeks. Patients were randomly categorized into experimental or control categories. All patients received NSAIDs, Orthoses, and Corticosteroid injections if needed. Thirty experimental patients also received DS for nightly wear to obtain a low load, prolonged duration of stretch with adjustable tension. The dependent variable was change in the 100 point Plantar Fasciopathy Pain/Disability Scale (PFPS).

Results: A one-way analysis of variance with post-hoc t-tests were performed, and there was a significant change in pain (Pre/Post) for the experimental patients ($P < 0.0001$, $T = 13.6$, Mean Δ 39.9). There was not a significant difference in pain for the control subjects. The mean difference between the final (12 week) of experimental patients vs. control patients was 32.11.

Conclusions: Dynamic splinting was effective in this study for reducing the pain of plantar fasciopathy for these patients.

Results



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