Dynamic Splinting for Hallux Valgus and Hallux Varus: A Pilot Study

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Background: Hallux Abductovalgus (HAV) is a deformity causing excessive angulation of the great toe towards the second toe, and this condition affects over 3.6 million Americans. Conversely hallux varus is excessive medial deviation and this pathology occurs secondary to procedures correcting hallux valgus and as a pediatric/congenital anomaly. The purpose of this pilot study was to report the benefits that Dynamic Splinting (DS) had on reducing contracture in hallux varus and hallux valgus.

Methods: Ten patients treated with DS were examined and these patients included six diagnosed with HAV and four patients diagnosed with hallux varus. The outcome measures reported include changes in maximal, active range of motion (AROM) and resting alignment.

Results: The patients treated for HAV regained a mean 10° active range of motion (AROM) in one month. The patients treated for hallux varus regained a mean 9° AROM in 3 months.

Conclusions: Dynamic splinting was beneficial for all patients in this study. The HAV patients regained a mean 10° of AROM (mean duration 1 month) and the hallux varus patients gained a mean 9° (mean duration 2 months). The modality which delivered low-torque stretching for prolonged durations was effective in reducing these conditions without requiring surgery.

Key words: Contracture reduction, Dynasplint, home therapy, rehabilitation.

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