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Cryotherapy and ankle motion in chronic venous disorders

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ABSTRACT

This study compared ankle range of motion (AROM) including dorsiflexion, plantar flexion, inversion and eversion, and venous refill time (VRT) in leg skin inflamed by venous disorders, before and after a new cryotherapy ulcer prevention treatment. Fifty-seven individuals participated in the randomized clinical trial; 28 in the experimental group and 29 received usual care only. Results revealed no statistically significant differences between the experimental and usual care groups although AROM measures in the experimental group showed a consistent, non-clinically relevant decrease compared to the usual care group except for dorsiflexion. Within treatment group comparisons of VRT results showed a statistically significant increase in both dorsiflexion and plantar flexion for patients with severe VRT in the experimental group (6.9 ± 6.8; p = 0.002 and 5.8 ± 12.6; p = 0.02, respectively). Cryotherapy did not further restrict already compromised AROM, and in some cases, there were minor improvements.

KEYWORDS

Cryotherapy; Ankle Range of Motion; Chronic Venous Disorders; Chronic Venous Insufficiency; Venous Refill Time

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