

The Effect of Dry Needling on Myofascial Trigger Point in Upper Trapezius Muscle

Maryam Ziaefar ¹, **Amir Massoud Arab** ¹, Mohammad Reza Nourbakhsh ²
Department of Physical Therapy, University of Social Welfare and Rehabilitation
Sciences, Iran ¹.
North Georgia College and State University, Dahlonega, GA, USA ².

BACKGROUND Dry needling (DN) as has been recently used by physical therapists as a therapy of choice for patients with myofascial trigger point (MTP). The purpose of this randomized controlled trial (RCT) was to investigate the clinical effectiveness of DN in the treatment of MTP in upper trapezius (UT) muscle.

METHODS A sample of convenience of 33 patients with MTP in UT muscle participated in this study. Patients were randomly assigned to a control (N = 17) and an experimental group (N = 16). The treatment protocol for control group consisted of the ischemic compression (IC) on MTP and the patients in the experimental group received DN. Pain intensity using visual analogue scale (VAS), pressure pain threshold (PPT) and disability of arm, hand and shoulder (DASH) were collected before treatment and after treatment sessions in both groups.

RESULTS Statistical analysis (paired t-test) revealed a significant improvement in pain, PPT and DASH after treatment in experimental (DN) and control (IC) group compared with before treatment ($P < 0.05$). The findings of ANCOVA revealed significant difference between the DN and IC group on the post-measurement score of VAS ($P = 0.01$). However, no significant difference was found between the two groups on the post-measurement score of PPT ($P = 0.08$), and DASH ($P = 0.34$).

CONCLUSION The application of DN produces an improvement in pain intensity, PPT and DASH and can be prescribed for subjects with MTP in UT muscles especially when pain relief is the goal of the treatment.

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