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The effect of dry needling on pain, pressure pain threshold and disability in patients with a myofascial trigger point in the upper trapezius muscle.

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Abstract

Dry needling (DN) has been used recently by physical therapists as a therapy of choice for patients with myofascial trigger points (TrP). The purpose of this randomized controlled trial was to investigate the effect of DN in the treatment of TrPs in the upper trapezius (UT) muscle. A sample of convenience of 33 patients with TrP in the UT muscle participated in this study. Patients were randomly assigned to a standard (N = 17) or experimental group (N = 16). The treatment protocol for the standard group consisted of trigger point compression technique (TCT) on MTP, while the patients in the experimental group received DN. Pain intensity and pressure pain thresholds were assessed for both groups before and after the treatment sessions. In addition, the Disability of Arm, Hand, and Shoulder (DASH) was administered. Statistical analysis (paired t-test) revealed a significant improvement in pain, PPT and DASH scores after treatment in the experimental (DN) and standard (TCT) group compared with before treatment ($P < 0.05$). The ANCOVA revealed significant differences between the DN and TCT groups on the post-measurement VAS score ($P = 0.01$). There was, however, no significant difference between the two groups on the post-measurement score of the PPT ($P = 0.08$) and DASH ($P = 0.34$). DN produces an improvement in pain intensity, PPT and DASH and may be prescribed for subjects with TrP in UT muscles especially when pain relief is the goal of the treatment.

KEYWORDS: Dry needling, Myofascial trigger point, Pain, Pressure pain threshold, Trigger point compression technique, Upper trapezius

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