

Short-Term Changes in Neck Pain, Widespread Pressure Pain Sensitivity, and Cervical Range of Motion After the Application of Trigger Point Dry Needling in Patients With Acute Mechanical Neck Pain: A Randomized Clinical Trial.

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Abstract

Study Design Randomized clinical trial. **Objectives** To determine the effects of trigger point dry needling (TrP-DN) on neck pain, widespread pressure pain sensitivity, and cervical range of motion in patients with acute mechanical neck pain and active trigger points (TrPs) in the upper trapezius muscle. **Background** TrP-DN seems to be effective for decreasing pain in individuals with upper quadrant pain syndromes. Potential effects of TrP-DN for decreasing pain and sensitization in individuals with acute mechanical neck pain are needed. **Methods** Seventeen patients (53% females) were randomly assigned to 1 of 2 groups: single session of TrP-DN or no intervention (waiting list). Pressure pain thresholds (PPTs) over the C5-C6 zygapophyseal joint, second metacarpal, and tibialis anterior muscle, neck pain intensity, and cervical spine range of motion data were collected at baseline (pre-treatment) and 10 minutes and 1-week after the intervention by an assessor blinded to the treatment allocation of the patient. Mixed-model ANOVAs were used to examine the effects of treatment on each outcome variable. **Results** Patients treated with 1 session of TrP-DN experienced greater decreases in neck pain, greater increases in PPT, and higher increases in cervical

range of motion than those who did not receive an intervention both 10 minutes and 1-week after the intervention (P 0.56) and large at the 1-week follow-up (SMDs > 1.34). Conclusions The results of the current randomized clinical trial suggest that a single session of TrP-DN decreases neck pain intensity and widespread pressure sensitivity, and also increases active cervical range of motion in patients with acute mechanical neck pain. Changes in pain, PPT, and cervical range of motion surpassed their respective minimal detectable change values supporting clinically relevant treatment effects. Level of Evidence Therapy, Level 1b-. J Orthop Sports Phys Ther, Epub 25 February 2014. doi:10.2519/jospt.2014.5108.

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