

Effectiveness of dry needling on the lower trapezius in patients with mechanical neck pain: a randomized controlled trial.

[Pecos-Martín D](#)¹, [Montañez-Aguilera FJ](#)², [Gallego-Izquierdo T](#)¹, [Urraca-Gesto A](#)³, [Gómez-Conesa A](#)⁴, [Romero-Franco N](#)¹, [Plaza-Manzano G](#)⁵.

[Author information](#)

Abstract

OBJECTIVE:

To evaluate the effect of dry needling into a myofascial trigger point (MTrP) in the lower trapezius muscle of patients with mechanical idiopathic neck pain.

DESIGN:

A single-center, randomized, double-blinded controlled study.

SETTING:

Patients were recruited from the student population of a local hospital by advertisement in the university clinic from January 2010 to December 2011.

PARTICIPANTS:

Patients (N=72) with unilateral neck pain, neck pain for ≥ 3 months, and active trigger points in the lower trapezius muscle were randomly assigned to 1 of 2 treatment groups. All the patients completed the study.

INTERVENTIONS:

Dry needling in an MTrP in the lower trapezius muscle, or dry needling in the lower trapezius muscle but not at an MTrP.

MAIN OUTCOME MEASURES:

The visual analog scale (VAS), Neck Pain Questionnaire (NPQ), and pressure-pain threshold (PPT) were assessed before the intervention and 1 week and 1 month postintervention.

RESULTS:

Treatment with dry needling of the lower trapezius muscle close to the MTrP showed decreases in pain and PPT as well as an improvement in the degree of disability ($P < .001$) compared with the baseline and control group

measurements ($P < .001$). The dry-needling technique performed in the MTrP showed more significant therapeutic effects ($P < .001$).

CONCLUSIONS:

The application of dry needling into an active MTrP of the lower trapezius muscle induces significant changes in the VAS, NPQ, and PPT levels compared with the application of dry needling in other locations of the same muscle in patients with mechanical neck pain.

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