Trigger point dry needling versus strain-counterstrain technique for upper trapezius myofascial trigger points: a randomised controlled trial.

Segura-Ortí E, Prades-Vergara S, Manzaneda-Piña L, Valero-Martínez R, Polo-Traverso JA.

Abstract

BACKGROUND: Treatment of active myofascial trigger points includes both invasive and non-invasive techniques.

OBJECTIVES: To compare the effects of upper trapezius trigger point dry needling (DN) and strain-counterstrain (SCS) techniques versus sham SCS.

STUDY DESIGN: Randomised controlled trial.

METHOD: 34 study subjects with active trigger points were randomly assigned to one of three treatment groups, and received either three sessions of DN (n=12), six sessions of SCS (n=10), or sham SCS (n=12) over a 3-week period. Subjective pain response and subjects' own ratings of perceived disability were measured.

RESULTS: The analysis of variance mixed model showed a significant time effect for pain (p<0.001), elicited pain (p<0.001), pain pressure threshold (p<0.01), and neck disability index (p=0.016). Pain at rest decreased in all groups, as follows: DN 18.5 mm (95% CI 4.3 to 32.7 mm); SCS 28.3 mm (95% CI 12.4 to 44.1 mm); sham SCS 21.9 mm (95% CI 3.5 to 40.1 mm). Reductions in disability score (points) were significant in the SCS group (5.5, 95% CI 1.6 to 9.4) but not in the DN (1.4, 95% CI -4.9 to 2.1) or sham SCS (1.8, 95% CI -6.4 to 2.7) groups. There was no significant group×time interaction effect for any variables studied.

CONCLUSIONS: There were no differences between the sham SCS, SCS, and DN groups in any of the outcome measures. DN relieved pain after fewer sessions than SCS and sham SCS, and thus may be a more efficient technique. Future studies should include a larger sample size.

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