

Relief of Chronic Neck and Shoulder Pain by Manual Acupuncture to Tender Points -a Sham-controlled Randomized Trial

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Objectives: To compare the effects of real acupuncture to tender points for neck and shoulder pain and stiffness (Japanese: *katakori*) with those of sham acupuncture. Design: Randomized-controlled trial.

Methods: Thirty-four volunteers from an acupuncture school with complaints of chronic pain and stiffness, who had no arm symptoms and gave informed consent, were randomly allocated to acupuncture or sham groups. Acupuncture or sham acupuncture was applied to the tender points once a week for 3 weeks. In the acupuncture group the acupuncture needle was inserted to the muscle, then the sparrow pecking technique was applied five times. Sham acupuncture was done without insertion of the needle. Dull pain and stiffness were evaluated by visual analog scale (VAS) before, and every 2 days after the first needling for 1 month. Pressure pain threshold on the tender points was measured before and after each treatment.

Results: There was no statistical difference of VAS scores between acupuncture and sham groups 9 days after the last treatment. However, the acupuncture group showed significant reduction of VAS scores immediately after and/or 1 day after the real acupuncture treatments ($P < 0.01$). The effect tended to be prolonged after repeated treatment. Pressure pain thresholds tended to increase after real acupuncture treatment but not after sham acupuncture.

Conclusion: Acupuncture applied to tender points appears to have short-term effects on neck and shoulder pain and stiffness, but this study was unable to demonstrate any long-term superiority over sham acupuncture.