



Low Level Laser Therapy & Neck Pain clinical research

Pain. 2006 Jun 23; [Epub ahead of print] **The effect of 300mW, 830nm laser on chronic neck pain: A double-blind, randomized, placebo-controlled study.** **Chow RT, Heller GZ, Barnsley L.** Castle Hill Medical Centre, 269-271 Old Northern Road, Castle Hill, NSW 2154, Australia.

A randomized, double-blind, placebo-controlled study of low-level laser therapy (LLLT) in 90 subjects with chronic neck pain was conducted with the aim of determining the efficacy of 300mW, 830nm laser in the management of chronic neck pain. Subjects were randomized to receive a course of 14 treatments over 7 weeks with either active or sham laser to tender areas in the neck. The primary outcome measure was change in a 10cm Visual Analogue Scale (VAS) for pain. Secondary outcome measures included Short- Form 36 Quality-of-Life questionnaire (SF-36), Northwick Park Neck Pain Questionnaire (NPNQ), Neck Pain and Disability Scale (NPAD), the McGill Pain Questionnaire (MPQ) and Self-Assessed Improvement (SAI) in pain measured by VAS. Measurements were taken at baseline, at the end of 7 weeks' treatment and 12 weeks from baseline. The mean VAS pain scores improved by 2.7 in the treated group and worsened by 0.3 in the control group (difference 3.0, 95% CI 3.8-2.1). Significant improvements were seen in the active group compared to placebo for SF-36-Physical Score (SF36 PCS), NPNQ, NPAD, MPQVAS and SAI. The results of the SF-36 - Mental Score (SF36 MCS) and other MPQ component scores (afferent and sensory) did not differ significantly between the two groups. Low-level laser therapy (LLLT), at the parameters used in this study, was efficacious in providing pain relief for patients with chronic neck pain over a period of 3 months.

Low-power laser in osteoarthritis of the cervical spine. Monteforte P, Baratto L, Molfetta L, Rovetta G. Rheumatology Department, University of Genova, Bruzzone Rheumatologic Center, Genoa, Italy. Patients with symptomatic osteoarthritis of the cervical spine were treated with very low-power modulated laser (LPL). Two applications were performed at an interval of 20 days. Changes in pain and ultrasound thickness of the soft connective tissue layer above the right and the left superior trapezium were studied. No worsening of pain was observed. Pain improved after the first application of LPL in 9 out of 14 patients, but the difference was not significant. Pain improvement remained stable between the first assessment and the second assessment, which was performed after 20 days. In comparison with the first application, at the second application the number of patients with improved pain after LPL increased to 12 out of 14 ($p < 0.01$). An appreciable difference in the thickness of the subcutaneous soft tissue layer overlying the two superior trapezia was demonstrated in all patients at the first examination. Comparison of the measurements

before and after the application of LPL showed significant differences. Qlaser Wellness Solutions

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