

Efficacy of high-intensity laser therapy in the treatment of chronic neck pain: a randomized double-blind placebo-control trial

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Abstract The aim of the study was to investigate the effect of high-intensity laser therapy (HILT) in treatment of patients with chronic neck pain (CNP) on cervical range of motion (ROM), pain, and functional activity. Sixty male patients participated in this study with mean (SD) age of 35.47 (4.18) years. Patients were randomly assigned into two groups and treated with HILT plus exercise (HILT + EX) and placebo laser plus exercise (PL + EX) in groups 1 and 2, respectively. The outcomes measured were cervical ROM, pain level by visual analog scale (VAS), and functional activity by neck disability index (NDI) score. Statistical analyses were performed to compare the differences between baseline and post-treatment. The level of statistical significance was set as $p < 0.05$. Cervical ROM significantly increased after 6 weeks of treatment in all groups. VAS and NDI results showed significant decrease post-treatment in both groups. HILT + EX effectively increased cervical ROM and decreased VAS and NDI scores after 6 weeks of treatment compared to PL + EX. HILT + EX is an effective physical therapy modality for patients with CNP compared to PL + EX therapy. The combination of HILT + EX effectively increased cervical ROM, functional activity, and reduced pain after 6 weeks of treatment.

Keywords Chronic neck pain High-intensity LASER therapy Exercise Pain Functional Disability

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