

Long-term effect of pulsed high-intensity laser therapy in the treatment of post-mastectomy pain syndrome: a double blind, placebo-control, randomized study

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Abstract We assess the long-term effect of pulsed high-intensity laser therapy (HILT) in the treatment of the post-mastectomy pain syndrome (PMPS). A total of 61 women participated in this study (30 in the laser group and 31 in the placebo laser group), with a mean age of 53.56 ± 1.11 years. Patients who were randomly assigned to the laser group received HILT three times per week for 4 weeks, plus a routine physical therapy program (RPTP). The placebo laser group received placebo HILT plus RPTP. The outcomes measured were pain level by visual analog scale (VAS), shoulder range of motion (ROM), and quality of life (QOL). Statistical analysis was performed by ANOVA with repeated measures to compare the differences between baseline and post-treatment measurements and after 12 weeks of follow-up for both groups. The level of statistical significance was set at $P < 0.05$. Shoulder ROM significantly increased in the laser group after 4 weeks of treatment and after 12 weeks of follow-up compared with the placebo group. VAS results showed a significant decrease post-treatment in the laser group relative to the placebo group, and QOL results showed a significant improvement in the laser group compared with the placebo group and still improved after 12 weeks of follow-up. HILT combined with an RPTP appears to be more effective in patients with PMPS than a placebo laser procedure with RPTP.

Keywords PMPS - HILT - Pain - Shoulder ROM - QOL

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