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The effect of high intensity laser therapy in the management of painful calcaneal spur: a double blind, placebo-controlled study.

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Abstract

To evaluate the effect of high-intensity laser therapy (HILT) in patients with calcaneal spur. The patients were randomized to receive either HILT + exercise (n = 21) (five times a week for a period of 3 weeks) or placebo HILT + exercise (n = 21) (five times a week for a period of 3 weeks). Pain severity (with visual analog scale (VAS) and with Roles and Maudsley score (RMS)), functionality (with Foot and Ankle Outcome Score (FAOS)), plantar pressure measurement, and quality of life (with short form-36 (SF-36)) of the patients were evaluated at baseline, at 4 weeks, and 12 weeks. A significant improvement in the VAS ($p < 0.001$), RMS ($p < 0.001$), and most of the SF-36 subgroup scores ($p < 0.05$) and most of the FAOS subgroup scores ($p < 0.05$) at 4 and 12 weeks after treatment was achieved in both groups. Besides, there was no significant difference in VAS ($p > 0.05$) and RMS ($p > 0.05$) between the groups. FAOS symptoms ($p = 0.022$) and quality of life ($p = 0.038$) subgroups were higher in the placebo group at 12 weeks. Significant improvements were observed in dynamic pedographic measurements in the HILT group ($p < 0.05$), and dynamic measurement values were significantly higher in the HILT group compared to placebo group ($p < 0.05$). Although the evaluation parameters, except dynamic pedographic measurements, have improved in both groups, our study results showed no superiority of HILT over placebo. To conclude, when the main complaint is pain in patients, only exercise therapy can be an economical, practical, and reliable treatment.

KEYWORDS: Calcaneal spur; Exercise; High intensity laser therapy; Pain

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