

Format: Abstract ▾

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Long-Term Effect of Pulsed Nd:YAG Laser in the Treatment of Patients with Rotator Cuff Tendinopathy: A Randomized Controlled Trial.

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Abstract

OBJECTIVE: The purpose of the present study was to investigate the long-term effect of pulsed Nd:YAG laser on the treatment of rotator cuff tendinopathy.

METHODS: Sixty patients with rotator cuff tendinopathy participated and completed the study. The mean age was 50.2 ± 3.6 years. Participants were randomly assigned to one of two groups: the control group and the treatment group. Both groups were treated with an exercise program, in addition to the pulsed Nd:YAG laser received by the treatment group and the "sham" laser received by the control group, both for three sessions per week for 4 weeks. Outcome measures included pain, assessed by the visual analog scale, and range of motion (ROM), assessed using a traditional goniometer, while the shoulder pain and disability index were used to evaluate the functional recovery of the shoulder joint. Evaluation was carried out before treatment, immediately after treatment, 3 months posttreatment, and 6 months posttreatment. Statistical analyses were used to investigate the effect of interventions and to compare the study groups' pretreatment, posttreatment, and at follow-up points. The significance level was set to $p < 0.05$.

RESULTS: Pain was significantly decreased after treatment and at follow-up points, while ROM and shoulder functions were significantly improved after treatment and at follow-up intervals in both groups. The improvement was more significant in the treatment group than in the control group posttreatment and at follow-up intervals.

CONCLUSIONS: Pulsed Nd:YAG laser combined with an exercise program seems to be more effective in the treatment of patients with rotator cuff tendinopathy than a sham laser with exercises.

KEYWORDS: Nd:YAG laser; high-intensity laser therapy; rotator cuff

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