

# Efficacy of 904 nm gallium arsenide low level laser therapy in the management of chronic myofascial pain in the neck: a double-blind and randomize-controlled trial.



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## Abstract

A prospective, doubleblind, randomized, and controlled trial was conducted in patients with chronic myofascial pain syndrome (MPS) in the neck to evaluate the effects of infrared low level 904 nm Gallium-Arsenide (Ga-As) laser therapy (LLLT) on clinical and quality of life (QoL).

The study group consisted of 60 MPS patients. Patients were randomly assigned to two treatment groups: Group I (actual laser; 30 patients) and Group II (placebo laser; 30 patients). LLLT continued daily for 2 weeks except weekends. Follow-up measures were evaluated at baseline, 2, 3, and 12 weeks. All patients were evaluated with respect to pain at rest, pain at movement, number of trigger points (TP), the Neck Pain and Disability Visual Analog Scale (NPAD), Beck depression Inventory (BDI), and the Nottingham Health Profile (NHP).

In active laser group, statistically significant improvements were detected in all outcome measures compared with baseline ( $P < 0.01$ ) while in the placebo laser group, significant improvements were detected in only pain score at rest at the 1 week later of the end of treatment. The score for self-assessed improvement of pain was significantly different between the active and placebo laser groups (63 vs. 19%) ( $P < 0.01$ ).

## Conclusion

This study revealed that short-period application of LLLT is effective in pain relief and in the improvement of functional ability and QoL in patients with MPS.

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