



Low Level Laser Therapy & maxillofacial clinical research

Low-level laser therapy is an important tool to treat disorders of the maxillofacial region.

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OBJECTIVES: The authors report on the effects of low-level laser therapy (LLLT) in the treatment of maxillofacial disorders.

SUMMARY AND BACKGROUND DATA: Further to our previous studies, this paper reports the results of the use of LLLT on the treatment of several disorders of the oral and maxillofacial region. This paper presents LLLT as an effective method of treating such disorders. **METHODS:** Two hundred and five female and 36 male patients ages between 7 and 81 years old (average 38.9 years old), suffering from disorders of the maxillofacial region, were treated with 632.8, 670, and 830 nm diode lasers at the Laser Center of the Universidade Federal de Pernambuco, Recife, Brazil (UFPE). The disorders included temporomandibular joint (TMJ) pain, trigeminal neuralgia, muscular pain, aphatae, inflammation, and tooth hypersensitivity postoperatively and in small hemangiomas. Most treatment consisted of a series of 12 applications (twice a week) and in 15 cases a second series was applied. Patients were treated with an average dose of 1.8 J/cm². **RESULTS:** One hundred fifty four out of 241 patients were asymptomatic at the end of the treatment, 50 improved considerably, and 37 were symptomatic.

CONCLUSIONS: These results confirm that LLLT is an effective tool and is beneficial for the treatment of many disorders of the maxillofacial region.

CAN LOW REACTIVE-LEVEL LASER THERAPY BE USED IN THE TREATMENT OF NEUROGENIC FACIAL PAIN? A DOUBLE- BLIND, PLACEBO CONTROLLED INVESTIGATION OF PATIENTS WITH TRIGEMINAL NEURALGIA

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Department of Oral and Maxillofacial Surgery and Oral Medicine, Odense University Hospital, Denmark Neurogenic facial pain has been one of the more difficult conditions to treat, but the introduction of laser therapy now permits a residual group of patients hitherto untreatable to achieve a life free from or with less pain. The present investigation was designed as a double-blind, placebo controlled study to determine whether low reactive-level laser therapy (LLLT) is effective for the treatment of trigeminal neuralgia. Two groups of patients (14 and 16) were treated with two probes. Neither the patients nor the dental surgeon were aware of which was the laser probe until the investigation had been completed. Each patient was treated weekly for five

weeks. The results demonstrate that of 16 patients treated with the laser probe, 10 were free from pain after completing treatment and 2 had noticeably less pain, while in 4 there was little or no change. After a one year follow-up, 6 patients were still entirely free from pain. In the group treated with the placebo system, i.e. the non-laser probe, one was free from pain, 4 had less pain, and the remaining 9 patients had little or no recovery. After one year only one patient was still completely free from pain. The use of analgesics was recorded and the figures confirmed the fact that LLLT is effective in the treatment of trigeminal neuralgia. It is concluded that the present study clearly shows that LLLT treatment, given as described, is an effective method and an excellent supplement to conventional therapies used in the treatment of trigeminal neuralgia.

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