

**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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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. Addressee for Correspondence: Arne Eckerdal DDS DOS Consultant, Department of Oral and Maxillofacial Surgery & Oral Medicine, Odense University Hospital, DK-5000 Odense' Denmark. 12/96 Rep. US X 8-10-12

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**Gaalas Laser Treatment Evaluated For Trigeminal Neuralgia, Paresthesia, Atypical Facial Pain And Temporomandibular Joint Pain In A 5-Year Study.**

Tandlægebladet.

1994; 98 (2): 526-529.

In Danish. - Eckerdal A, Lehmann Bastian H. 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. Laser Therapy. 1996; 8: 247-252.

At the Odense University Hospital, Denmark, Arne Eckerdal has evaluated the effect of 830 nm, 30 mW, laser treatment for a number of indications. Patients suffering from trigeminal neuralgia (n = 36) had a positive result in 81% at the end of treatment, 42% at 1-year control. Patients having received previous alcohol blocks (n = 14) responded less favourably to the treatment. 50% were pain free at the end of the treatment period, 20% at 1 year control. Patients with non-specific facial pain (n = 63) were pain free at the end of treatment, 44% at follow up one year later. In a group of 22 patients with paresthesias (n = 22), only 5 were successful at end of treatment, 4 were improved and 13 were not improved. The result at 6 and 12 months were the same. Patients with temporomandibular pain (n = 40) were improved in 73% and at 1 year control still 70% were pain free.