

Sinusitis

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Low Level Laser Therapy of Sinusitis

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M. Hacarova, ENT and Allergology, Dobnerova 26, Olomouc, CZ

J. Hubacek, Faculty Hospital, ENT Clinic, I. P. Pavlova 6, Olomouc, CZ

ABSTRACT

The authors have been monitoring influence of a therapeutic laser (LLLT), wavelength 830 nm, output 40 - 120 mW, on treatment of acute sinusitis in 194 patients in group I (consisting of 20 patients with diagnosis of sinusitis maxillaris unilat., bilateralis - 145, frontalis unilat. - 2, pansinusitis - 24 patients). Control group II consisted of 241 patients with the same diagnosis, treated without the use of a laser. Energy density applied on children was 1.6 J/cm², 3 times every other day, on adults 2.5 J/cm², 5 times every other day on every affected sinus. Laser probe was applied externally on the skin of frontal wall of the sinus. 30 patients were treated with laser only, 91 patients were treated with laser and antihistaminics, 73 patients were treated with laser, antihistaminics and antibiotics. A significant analgetic effect of laser irradiation was noticed in all groups, the number of punctures decreased substantially in comparison with group II, presumably thanks to release of outlets of the sinus and improved drainage, the time of treatment decreased significantly. No complications were noticed.

Vestn Otorinolaringol. 1994 Mar-Apr;(2):27-31.

[The clinico-immunological assessment of the efficacy of magnetic-laser therapy in patients with chronic maxillary sinusitis]

[Article in Russian]

[Nikolaev MP](#), [Prozorovskaia KN](#), [Skriabin AS](#), [Popov VV](#).

Magneto-laser therapy (80 Hz, 0.01 mW/cm², 12 min) consisting of 10 sessions was performed in patients with maxillary sinusitis (MS). Therapeutic action on the sinus mucosa was conducted through the sinus anterior wall. The magneto-optic attachment coupled with semiconductor laser in the Uzor apparatus was tightly pressed to the facial skin in the sinus projection area. Positive clinical responses associated with stimulation of neutrophil phagocytic activity and with a rise in the portion of rosette-forming

neutrophils and Ig A were achieved in 90% of the patients with catarrhal MS and in 83% of those with purulent MS. A 1.5-2-year follow-up registered the effect persistence in 80% and 69% of them, respectively. Compared to standard methods (microwave therapy), magneto-laser treatment was superior both in short-term and long-term effects obtained in purulent MS. The method can be applied in mono- and polytherapy.

Vestn Otorinolaringol. 1991 May-Jun;(3):60-3.

[Clinical effectiveness of magnetolaser therapy of vasomotor rhinitis]

[Article in Russian]

Mamedov AF.

Magnet-laser therapy was used to treat vasomotor rhinitis in 90 patients. A constant magnet of 50 mT was applied to the exterior of the nose, and an infrared laser beam was applied via a light-guide to the reflexogenic zones of concha inferior. The radiation power density was 5 mW/cm². The magnetic exposure time was 6-10 min and the laser exposure time was 3-5 min for each half of the nose. The therapeutic course was 8-12 sessions. The therapeutic results depended on the type of vasomotor rhinitis, clinical disorders, and duration of the disease. Good results were seen in 84 (93.3%) patients out of 90 cases. Stable remission was recorded in 61.1% patients, significant improvement of clinical manifestations of vasomotor rhinitis was observed in 32.2% cases. Best results were reported in patients with autonomic forms of vasomotor rhinitis who suffered from short-term disease and vasodilation disorders.