

PBM Laser Therapy Effects on Blood

PMID: 11094892 [PubMed - indexed for MEDLINE]

Diagnostic implications of altered erythrocyte counts with low-intensity laser radiation of the blood in elderly patients with coronary artery disease

Klin Med (Moscow). 2002; 80 (4): 31-3. Simonenko VB, Siuch NI, Vokuev IA.

short version

Intravenous laser therapy in combination with drugs was performed in 41 elderly patients with coronary artery disease (633 nm, 1 mW, 124 mW / cm²). The investigation of the qualitative and quantitative (osmotic resistance) erythrocyte indices of the blood showed the change in the number of erythrocytes in the circulating blood by the third laser method. The frequency of these changes correlated with the duration of the course of treatment. Intravenous laser therapy had a broader spectrum of effects on the erythrocyte count than drug therapy. Changes in the number of erythrocytes in the peripheral blood with intravenous laser irradiation reflect the effectiveness of the treatment of patients with coronary artery disease.

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Antioxidant effects and therapeutic effectiveness of laser irradiation of blood in patients with ischemic heart disease

Vopr Kurortol Fizioter Lech Fiz Kult. 2003 May-June; (3): 22-5
Volotovskaia AV, Ulashchik VS, Filipovich VN.

short version

Laser irradiation in therapeutic doses (gamma = 632.8 nm, 14 mW) has an antioxidant effect on blood irradiation in vitro, as shown by the activation of superoxide dismutase (SOD), a key enzyme of the antioxidant system (AOS), and the suppression of lipid peroxidation has been. The adjuvant supravascular He-Ne laser irradiation of blood in the combined therapy of 82 patients with ischemic heart disease (IHD) produces a positive trend in the clinical picture, in hemostasis, in lipid metabolism and in SOD activity of the blood. This makes this method of laser hemotherapy recommended for use in IHD patients. The dependence of the treatment results on the initial blood AOS makes it necessary to

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Cytological parameters of bronchoalveolar lavage in patients with chronic obstructive bronchitis exposed to laser blood irradiation

Ananchenko VG, Khanin AG, Gostishchewa OV. Ter ark. 1999; 71 (11): 65-7.

short version

OBJECTIVE: Clinical-cytological evaluation of the effectiveness of a combined treatment of chronic obstructive bronchitis (COB) in the event of an exacerbation using laser radiation of the blood. MATERIALS AND METHODS: The combined treatment with the use of intravenous and transcutaneous He-Ne blood irradiation was administered to 32 patients with COB. 27 COB patients who were treated without blood irradiation served as controls. The mean age of the patients (39 men and 20 women) was 59 +/- 9.5 years. In addition to the conventional methods of examining and controlling the treatment effect, cytological and bacteriological tests were carried out on BAL precipitate smears. RESULTS: The combined COB treatment with the use of laser blood irradiation has an anti-inflammatory effect, promotes the normalization of mucociliary transport, the activation of phagocytosis and immune defense, the purification of the bronchial tree, the reduction of obstruction (due to FEV per 1 s), the effective treatment of exacerbations. The hospital stay decreased by 3-4 days. Blood irradiation has advantages as a non-invasive method. CONCLUSION: Clinical, cytological and bacteriological tests, as well as the determination of FEV, provide a significant assessment of treatment efficacy in dynamics and facilitate the choice of the most effective regimen for the treatment of COB in exacerbations. The hospital stay decreased by 3-4 days. Blood irradiation has advantages as a non-invasive method. CONCLUSION: Clinical, cytological and bacteriological tests, as well as the determination of FEV, provide a significant assessment of treatment efficacy in dynamics and facilitate the choice of the most effective regimen for the treatment of COB in exacerbations. The hospital stay decreased by 3-4 days. Blood irradiation has advantages as a non-invasive method. CONCLUSION: Clinical, cytological and bacteriological tests, as well as the determination of FEV, provide a significant assessment of treatment efficacy in dynamics and facilitate the choice of the most effective regimen for the treatment of COB in exacerbations.

Endovascular laser irradiation of blood in the comprehensive treatment of gastric cancer

Vopr Oncol. 1998; 44 (6): 704-7. Kamarli ZP, Ankudinova SA, Kolesnikova RN.
Kyrgyz-Russian (Slavic) University, Bishkek, Kyrgyzstan.

short version

The data on the treatment of 35 patients with gastric cancer (two groups) are presented. In group I surgery and chemotherapy were administered, in group II - intravenous helium-neon laser therapy as part of a complex treatment. Dynamic changes in the hematological and immunological indices were examined. The immunological and hemopoietic indices improved after laser therapy.

PMID: 1575948 [PubMed - indexed for MEDLINE]

The use of the helium-neon laser for drug-resistant cardiac arrhythmias

Gel'fgat EB, Abdullaev RF, Babaev ZM, Musabekov SSh. *Cardiologia*. 1992 Feb; 32 (2): 66-8.

short version

Of 85 patients with cardiac arrhythmia and chronic coronary artery disease, 28 who were resistant to ethacisin and allapinin were included in the study. They had frequent and persistent irregular heartbeat. The patients were divided into 2 groups: (1) the patients who received intravenous He-Ne laser therapy in combination with any of the above drugs; (n = 17) and (2) those who took He-Ne laser therapy alone (n = 11). The effectiveness of the therapies was checked by means of 24-hour monitoring. An anti-arrhythmic effect was observed more frequently when the He-Ne laser was combined with any of the above drugs than when it was administered alone (67.4% and 36.3%, respectively).

PMID: 1527940 [PubMed - indexed for MEDLINE].

The state of autonomic homeostasis when using a low-intensity helium-neon laser as part of combined anesthesia

Anesteziol Reanimatol. 1992 Jan-Feb; (1): 17-9

Avrutskii Mla, Musikhin LV, Finkel'shtein IE, Katkovskii DG, Guseinov Tlu.

short version

The effect of intravenous blood irradiation with the helium-neon laser on vegetative homeostasis during surgery was investigated. It has been found that the introduction of low-intensity laser blood irradiation into a complex of anesthesiological procedures ensures more effective protection of patients from the surgical stress.

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The use of low-energy lasers for the prevention and treatment of post-operative and radiation-induced complications in patients with head and neck cancer

Kitsmaniuk ZD, DemochkoVB, Popovich VI. Vopr Oncol. 1992; 38 (8): 980-6.

short version

The effectiveness of low-energy helium-neon and copper vapor lasers for the prevention and treatment of postoperative and radiation complications was investigated in 195 patients with locally advanced tumors of the head and neck. The control group consisted of 118 patients. Intravenous laser irradiation of the blood was associated with a higher percentage of wound healing with the first intention and a better course of the postoperative period. It was found that the laser treatment of the skin irradiation fields improved the skin's tolerance to the neutron beam. The study could not demonstrate any stimulation of tumor growth by the laser irradiation with regard to recurrence and metastasis. The data obtained showed.
