

ЗДОРОВ'Я ЛЮДИНИ: ТЕОРІЯ І ПРАКТИКА

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zapaleniem otrzewnej i może dostarczać informacji i służyć jak dodatkowe kryterium prognozowania.

Kluczowe słowa: ostre zapalenie trzustki, zapalenie otrzewnej, IL-8, polimorfizm genów, cytokiny.

Objectives. This study has assessed the possible association of IL-8 (-251A/T) polymorphism with clinical course and outcome of pancreatogenic peritonitis.

Methods. Data for the study were DNA samples, received from the leucocytes of 143 humans: 83 patients with pancreatogenic peritonitis, 60 healthy blood donors served as controls. IL-8 (-251A/T) polymorphism detection was made with polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP).

Results. By analysis of frequency of IL-8 (-251A/T) polymorphism, we found that genotype A/T was the dominant variant (45%) among healthy blood donors. Distribution of IL-8 (-251A/T) polymorphism among patients with pancreatogenic peritonitis without and after surgical treatment is characterized by dominance of genotype T/T in group after surgical treatment ($p < 0.05$). This may indicate association of genotype T/T and unfavorable clinical course of pancreatogenic peritonitis ($OR > 1$). Among patients after surgical treatment genotype A/T was less often met in comparison with the group without it ($p < 0.05$). This may indicate association of genotype A/T and favorable clinical course of pancreatogenic peritonitis ($OR < 1$). Genotype A/A was rarely registered, which may be due to regional peculiarities of the patient's genotype.

Conclusions. This preliminary study suggests that the identification of genetic polymorphism of IL-8 (-251A/T) may be informative and serve as an additional criterion to predict both the clinical course and outcome of pancreatogenic peritonitis; it may also specify indications for surgical treatment. However, the possible role of IL-8 (-251A/T) cytokine polymorphism in the outcome of pancreatogenic peritonitis requires further investigations.

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EFFECT OF INTRAVENOUS LOW LEVEL LASER THERAPY ON THE SYSTEMIC HYPERTENSION

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The purpose of this study is to determine the effects of low-intensity laser therapy on the system hypertension. Low level laser therapy is the effective method

to correct blood pressure parameters and normalize circadian blood pressure rhythm in the limits of 10-20%.

Keywords: low level laser therapy, hypertension, blood pressure rhythm.

Celem tego badania jest określenie wpływu terapii laserowej o małej intensywności na systemową nadciśnienie tętnicze. Terapia laserem niskopoziomowym jest skuteczną metodą poprawiania parametrów ciśnienia krwi i normalizacji rytmu dobowego ciśnienia tętniczego krwi w granicach 10-20%.

Słowa kluczowe: terapia laserowa niskopoziomowa, nadciśnienie tętnicze, rytm ciśnienia krwi.

About 25% of the adult population is suffering from hypertension. The global prevalence in 2025 will grow to 1.5 billion people. Low level laser therapy (LLLT) may be an alternative or complement to the standard treatments.

Objectives. The purpose of this study is to determine the effects of low-intensity laser therapy on the systemic of hypertension.

Methods. Of the 62 persons treated with intravenous laser therapy 30 had normal blood pressure level (1 group) and 32 were hypertensive (2 group). Average course of the intravenous laser therapy include 10 procedures each of 15 minutes with a laser source wavelength $\lambda = 635$ nm and a power of 1.5 mW sterile optical fiber with a diameter of 500 microns was insert in the patient cubital vein. Daily blood pressure monitoring was performed before and 10 days after treatment. We used the device daily monitoring of blood pressure HEACO model ABPM 50.

Results. BP dynamics in 1 group had tendency to decreasing in normal range up to low baseline during treatment course. BP dynamics in 2 group was characterized by decreasing of the average systolic blood pressure (SBP) in $14,86 \pm 3,2\%$, average diastolic blood pressure (DBP) in $8,16 \pm 2,2\%$, average daily SBP in $12,24 \pm 3,6\%$, average daily DBP in $5,1 \pm 1,4\%$, average night SBP in $21,19 \pm 5,2\%$, average night DBP in $16,12 \pm 3,1\%$ ($p < 0.005$). The non-dipper type of the circadian BP rhythm was found in 30% of patients, night-peak type – in 20%, all of them returned to normal after 10-days treatment. Rising BP surge was observed in 35% of patients. It was reduced to $6,1 \pm 0,9$ mmHg for SBP ($p < 0.05$), and $3,4 \pm 0,4$ mmHg for DBP ($p < 0.05$) after LLLT.

Conclusions. Low level laser therapy is the effective method to correct blood pressure parameters and normalize circadian BP rhythm in the limits of 10-20%.