

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ
«БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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101 – ї

підсумкової наукової конференції

професорсько-викладацького персоналу

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ASSESSMENT OF SPONTANEOUS AND INDUCED INFLAMMATORY AND ANTIINFLAMMATORY CYTOKINE PRODUCTS BY LIGANDS TLR2 AND TLR4 IN PATIENTS WITH ABDOMINAL SEPSIS

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Research objective: determination of levels of anti-inflammatory cytokines produced by mononuclear cells (MNC) in the peripheral blood of patients with abdominal sepsis (AS) under the influence of TLR ligands in dynamics of the disease with assessment of their predictive importance. Research problems: to define spontaneous and induced by ligands of TLR2 and TLR4 products and the MNK anti-inflammatory cytokines of the peripheral blood of patients with AS. Materials and methods. All patients ($n = 36$) with abdominal sepsis were operated and divided into 2 subgroups of comparison. The subgroup of patients with AS included those staying in the hospital for 14 ± 3 days. In this subgroup the optimum option of current AS was observed. Subgroup B included patients with AS who were in the hospital 40 ± 10 days. In this group development of a number of complications during AS was noted. The control group included almost healthy donors of MNC suspension taken from the peripheral blood by means of the method based on sedimentation in a one-step gradient of density of Ficol-Urografinum. As ligands of TLR the following stimulators were used: lipopolysaccharide (LPS) (*E. Coli* 0127: B8, "Sigma") and peptidoglycane (*Staphylococcus aureus*, "Sigma/Fluka). To define the concentration of IL-6, IL-8, IL-10 cytokines commercial sets for an enzyme immunoassay were used. Results. The spontaneous products of SILT-6 of MNC in the peripheral blood of patients of subgroup B were authentically ($\alpha = 0.05$) raised on the 3rd day of the disease. Induced TLR ligands - lipopolysaccharides (LPS) producing IL 6 of MNK in the peripheral blood of patients of subgroup A were found to increase reliably ($\alpha = 0.05$) on the first day of the disease. On the 3rd day of the disease in patients of subgroup B the products of SILT-6 authentically decreased. At the same time such distinctions remained on 7 days of the disease up to 10 days. Decrease in stimulation was observed among patients from subgroup B, by this time their products of SILT-6 reached the level of patients of subgroup A. While studying the products SILT-8 of MNC in the peripheral blood of patients with AS in subgroups A and B various products of SILT-8 were found. At the beginning of the disease (1 day) the products of SILT-8 in subgroup A were similar to the subgroup B which is authentically raised in comparison with an indicator ($\alpha = 0.05$). On 3 days of current AS this difference decreased (statistically it is absent at the level $\alpha = 0.05$) though in subgroup A there was a tendency to preservation of high level of products of SILT-8. For the 7th day confirmation of this trend is noted statistically reliable ($\alpha = 0.05$): level of spontaneous and stimulated products SILT-8 in patients of subgroup A in this period was higher, than in subgroup B. The nature of dynamics of a profile of the induced LPS of products SILT-8 of MNK in the peripheral blood of patients with AS in subgroups A and B was similar to spontaneous products of this cytokine. At the beginning (1 day) of the disease patients of subgroup of A had products of SILT-10 of MNC in the peripheral blood, both spontaneous and induced by ligands TLR authentically above to 3 days of a current AS. In patients of subgroup there was a decrease in the spontaneous and induced products of SILT-10 in this period reliable difference between patients of subgroups A and B was not found. To 7th day the course of AS in patients of subgroup A in comparison with subgroup B, remained increased in products of SILT-10 again. Conclusions. Thus, strengthening of products of SILT-10 reflects transition of the disease to a reparative phase. At the same time, patients from subgroup A developed a reliable increase in products of SILT-10 to the 7th day of the postoperative period. In patients from subgroup B a similar tendency was noticed, but taking into account a bit different course of AS: increase in IL-10 level was observed to 10 days of the postoperative period.