

Neutrophil granulocytes are new players in the field of antiviral protection of the organism.

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Introduction. Currently more than 95% of people is infected by viruses belonging to the Herpesvirus family.

Numerous studies have shown that the most common in chronic mono - or mixed-herpesviral infections (CHVI) are combined disorders in the system of antiviral protection: a decrease interferon levels, spontaneous and induced production of IFN- α and INF- γ , the deficit in the number and functional activity of the EK and Tct1. Recent time, the role of neutrophil granulocytes (NG) in antiviral protection, especially in early contacts of NG and viruses, is proved.

The aim of our the study was to study the expression of the surface membrane receptors NG to IFN- α and IFN β (IFN- α/β R1), INF- γ (CD119) and TLR4 (CD284) at different HGVI and possibilities of modulation of negatively altered phenotypes of IFN α/β R1 subpopulation+ INF- γ r+TLR4+ NG peripheral blood of these patients under the influence of GP in vitro.

Materials and methods

The experiment was performed on 99 blood samples obtained from 21 patients both sexes, aged 23 to 60 years, suffering from chronic mono - (45 % of cases) and mixed - (55 % of cases) CHVI, and from 15 healthy people who form the control group, comparable in sex and age. The serodiagnostic and PCR were used for detection CHVI. The phenotype of the IFN α/β R1+INF γ R+TLR4+NG subpopulation was determined by flow cytometry. Statistical analyses was carried out using the package "Statistica 20".

Results and discussion.

The peculiarities of transformation in phenotypes of NG FN α/β R1+INF γ R+TLR4+NG subpopulations in patients with CHVI were revealed. The amount of IFN α/β R1 + NG, CD119+NG in patients was significantly higher than in conditionally healthy individuals. The expression of TLR4 molecules on the membrane surface of NG in patients with HGVI varied differentially. Thus, in one group of patients there was a decrease in the number of TLR4 + NG, and in the other-an increase in the number of TLR4 + NG compared to the control group.