
IMMUNE INDICES AND REACTIONS OF ADAPTATION

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Violation of immune mechanisms at the level of the organism significantly reduces its adaptability to a particular process, increases the likelihood of serious damage, and affects population processes. Therefore, the purpose of this study was to understand the mechanisms of adaptation and the impact of stressful situations, which allow us to re-evaluate the mechanisms of the appearance of various diseases of the immune system.

Keywords: adaptation, immune system, central nervous system, adaptation types, stress, activation reaction, training react.

The influence of different internal and environmental factors leads to development of reactions of adaptation in whole organism and in all organism's systems.

Organism's resistance, as well as immune one, depend on the type of the reaction of adaptation. According to L. Garkaviet (1990), there are several types of reaction of adaptation. Extreme factors lead to the development of stress reaction or reaction of hyper activation, influence of small intensity leads to training reaction development, influence of middle intensity leads to activation reactions development (quite or high).

The types of adaptation reaction are determining mainly by the rate of lymphocytes in blood. This rate depends on person's age. There is the special table to identify a type of adaptation reaction. Rates of other cells allow defining the level of reactivity.

The aim of this research is to analyze immune indices indifferent types of reaction of adaptation.

Heamograms of 60 healthy children (7–16 years old) have been analyzed to determine the type of the reaction of adaptation. The levels of several immune indices have been analyzed in different types of reaction of adaptation. We analyzed the levels of lysozyme (unspecific immune humoral factor), IgA, IgM and IgG.

We revealed the highest lysozyme level in reaction of quite activation ($8,59 \pm 0,48$ in comparison with $7,56 \pm 0,29$ in stress reaction, $8,27 \pm 0,28$ in training reaction and $5,59 \pm 0,72$ in high activation). We could see that lowest level was in high activation reaction.

The highest IgA level was determined in reaction of quite activation as well – $2,58 \pm 0,56$ ($1,62 \pm 0,52$ in stress reaction, $1,08 \pm 0,14$ in training reaction and $1,53 \pm 0,15$ in high activation). The lowest IgA level was in training reaction.

We could see no distinct difference in the levels of IgG ($9,85 \pm 1,68$ in stress reaction, $10,98 \pm 0,70$ in training reaction and $8,85 \pm 1,03$ in high activation).

Our investigation showed, that reaction of quite activation accompanied with the highest levels of all analyzed immune indices (lysozyme, IgA, IgM and IgG) in comparison with other types of reactions of adaptation (stress reaction, training reaction and high activation).

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EXAMINATION OF THE EXTENT OF THE DRUG USE AMONG THE YOUTH

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Analysis of statistical data of health-care agency "Mogilev regional drug abuse dispensary" shows that from 2002 to 2005, the decline was observed in the number of drug addicts, but since 2006, it can be noted an annual increase of drug users who are registered in the regional drug abuse dispensary.

Keywords: drugs, psychoactive substances, drug use, abuse, addiction, drug addiction.