Changes in immunological reactivity of patients with pulmonary tuberculosis and allergic and toxic-allergic reactions

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BACKGROUND. The spread of tuberculosis in Ukraine forces doctors to use intensive chemotherapy, which leads to adverse reactions and promotes to the spread of drug-resistant tuberculosis. Toxic-allergic reactions take a protracted course and are difficult to respond to corrective therapy, which requires additional research.
OBJECTIVE. To determine changes in immunological reactivity in patients with pulmonary tuberculosis with allergic and toxic-allergic reactions by cellular immunity research.
MATERIALS AND METHODS. The results of clinical, laboratory and immunological examination of patients were analyzed depending on the presence/absence of clinical signs of allergic reactions to antituberculosis drugs using the method of flow cytofluorimetry and assessment of phagocytic link of immunity.
RESULTS AND DISCUSSION. There were detected the activation of all studied subpopulations of T- and B-lymphocytes and an increase in the absolute and percentage number of natural killers in the blood of patients without adverse reactions. It is a positive factor for the destruction of mycobacteria. The development of allergic reactions support the inhibition of the activity of the general pool of T-lymphocytes, their subpopulations, B-lymphocytes, natural killers, the absorption activity of phagocytes. It is an unfavorable factor that can lead to the formation of anergy of immunocytes. Increased activity of the inflammatory process and deepening of the immunological imbalance were detected in patients with clinical and laboratory signs of toxic-allergic reactions. It is not accompanied by an inhibitory effect on blood lymphocytes and phagocytes, is revealed. It indicates a special pathogenesis of toxic-allergic reactions with involvement of disturbed liver functions.
CONCLUSIONS. Identified differences in the immune status will allow to adjust the treatment.

KEY WORDS: pulmonary tuberculosis, immunity, allergic reactions, toxic-allergic reactions.

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