

FEATURES OF THE IMMUNO-CYTOKINE SYSTEM IN ZOOANTHROPOTIC SKIN TRICHOPHYTIAS

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Purpose of the study. To study the phenotype of immunocompetent cells (CD3+, CD4+, CD8+, CD16+, CD25+), the level of cytokines (IL-1, IL-4, IL-6, β , γ - IFN, TNF- α) and establish their significance in the clinical course of zooanthroposis trichophytosis.

Materials and methods of research: To perform immunological studies, 76 patients with various forms of zooanthropotic trichophytosis were selected, who were treated in a hospital setting of the State Institution RSNPMCDViK of the Ministry of Health of the Republic of Uzbekistan. There were 37 men (48.7%), 39 women (51.3%). Trichophytosis of smooth skin was detected in 16 (21.1%) patients, of the scalp - in 21 (27.6%) and a mixed form (smooth skin and upper part of the head or pubic area) in 39 (51.3%) patients. When distributed according to clinical forms, a superficial spotted form was identified in 23 (30.1%), an infiltrative form in 30 (39.5%) and an infiltrative-suppurative form in 25 (32.9%) patients. The age of the patients varied from 2 to 35 years. Children under 14 years old made up 39 (51.3%) patients, from 15 to 18 years old - 19 (25%), from 19 to 35 years old - 18 (23.7%) patients. The number of lesions varied from 1 to 25 lesions.

Results and discussion: In all patients, microscopic examinations revealed fungi, on the basis of which the diagnosis was made. Culture studies were carried out in all patients, and in 37 cases (48.7%) growth of dermatophytes was obtained. Of these, in 25 (67.6%) cases, growth of *Tr. verrucosum* was obtained, in 12 (32.4%) cases, *Tr. mentagrophytes* var. *Gypseum*.

Blood was taken from all patients to study immunological parameters: phenotype of immunocompetent cells (CD3+, CD4+, CD8+, CD16+, CD25+), level of cytokines (IL-1, IL-4, IL-6, α , β , γ - IFN, TNF- α).

Disturbances were revealed in the form of a decrease in the relative number of CD3 cells (50.8 ± 0.37), CD4 cells (33.0 ± 0.32), indicators of nonspecific resistance (38.6 ± 0.57), activation of the humoral immune system (21.3 ± 0.15).

During the initial screening of the cytokine-producing activity of cells of the immune system, different concentrations of pro- and anti-inflammatory cytokines are observed: an increase in the concentration of IL-6, TNF-alpha and a decrease in IL-1, IL-4, IFN- γ .

A comparative analysis of the cytokine status before treatment showed different concentrations of various cytokines. The content of IL-1 β , IL-2 in all patients before treatment was reduced compared to the normative value (31.3 ± 4.92 pkg/ml and 0.6 ± 0.3592 pkg/ml, respectively).

We consider reduced values of IL-1 β and IL-2 as an unfavorable prognostic criterion that does not allow strengthening the mechanism of protective immunity to dermatophytes.

An increased concentration of IL-6, IL-8, TNF-alpha is associated with the presence of inflammation of varying severity at the site of introduction of the pathogenic fungus. The concentration of cytokines such as IL-4 (1.3 times), INF- γ (1.3 times) was reduced to varying degrees of reliability.

Conclusions: Thus, dermatomycosis is a large group of diseases with a complex immune response that occurs as a result of skin infection by fungi. In the general dermatological structure of morbidity, dermatomycosis occupies one of the first places, so studying the immunological features of the course of fungal diseases in organizing the fight against them is an urgent task.

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