CLINICAL SIGNIFICANCE OF IMMUNOLOGICAL CHANGES IN CHRONIC SUPPURATIVE OTITIS MEDIA

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Introduction. Chronic suppurative otitis media (CSOM) is a common disease among both children and adults and is characterized by a prolonged inflammatory process in the middle ear cavity. In this pathology, the condition of the local and systemic immune system is one of the key factors determining the clinical course of the disease and the response to treatment.
Aim of the study. To identify changes in cellular and humoral immune parameters in patients with CSOM and to assess their impact on the course of the disease.
Materials and methods. The study was conducted using retrospective and prospective approaches. A total of 120 patients diagnosed with CSOM from specialized departments of the Bukhara region were included. All patients underwent clinical examination, assessment of ear discharge from the external auditory canal, audiometry, and necessary imaging studies. Cellular immune indicators (T-lymphocytes, B-lymphocytes, “0”-lymphocytes, T-helpers and T-suppressors) and humoral indicators (IgA, IgM, IgG) were determined in the laboratory. The obtained data were statistically processed and differences between groups were analyzed.
Results. The results showed a significant decrease in the number of T-lymphocytes in patients with active CSOM ($p<0.01$). At the same time, an increase in the proportion of “0”-lymphocytes and, in some cases, T-suppressors was observed, indicating disturbances in immunoregulatory mechanisms. A reduction in IgA levels was associated with weakened local mucosal defense, whereas elevated IgG levels reflected a long-term compensatory immune response to infection. These changes correlated with an increase in disease severity and recurrence rate.
Discussion. Based on immunological profiles, it is possible to classify CSOM patients into subgroups and develop individualized therapeutic strategies. For example, immunomodulatory therapy may be effective in patients with reduced T-lymphocyte levels. In cases of decreased IgA, agents that enhance local immunity and promote mucosal recovery may be recommended. Such an approach, when combined with antibiotic therapy, helps improve disease control and reduce recurrence frequency.
Conclusion. Immunological changes play an important role in the pathogenesis of CSOM. Regular monitoring of immunological parameters is essential for early diagnosis, evaluation of treatment outcomes, and selection of individualized treatment strategies. In the future, large-scale clinical studies are recommended to standardize immunotherapy protocols and assess their effectiveness. Special attention should also be paid to patient rehabilitation and preventive measures