

THE EFFECT OF STIMULATING LOCAL IMMUNITY WITH AUTOLOGOUS CELLS IN THE TREATMENT OF TISSUE INFLAMMATORY PROCESS ON THE BODY'S RESISTANCE TO INFECTION

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Introduction. The application of autologous mononuclear cells to the area of inflammatory affected tissue produces the stimulation of certain cytokines with anti-inflammatory properties, the proliferation of cells involved in repair and reconstructive processes, and accelerates the normalization of local and systemic immune status.

Materials and methods. Standard conservative treatment with local application (peritonsillar space) of autologous cells was applied to 32 children with chronic tonsillitis.

Results. Immunohistochemical studies of tonsils (12 children) showed that in the dynamics of treatment the number of preimmune resistance cells CD56+ CD68+ in the germinal center (GC), the peripheral part of the tonsillar lymphoid node, in the crypt and tapering epithelium increased significantly. The amount of e-RNA and RLO decreased significantly in the GC. Posttreatment, there was an increase in cellular immunity, which was evidenced by high levels of CD3+ CD4+ CD8+ density in the studied areas. Humoral immunity (lymphocytes CD20 cy+, plasma cells) did not undergo a normalization process, the levels of density of these lymphocytes being low.

Evaluation of the bacteriological profile on the tonsils determined the following bacterial flora: *Staphylococcus aureus* – 56.2%, *β-hemolytic streptococcus* group A – 12.5%, *β-hemolytic streptococcus* group C – 6.5%, *Streptococcus pneumoniae* – 6.3%. After treatment, after 2 months, the predominated flora: *Staphylococcus aureus* – 72.2% of cases, *Streptococcus pneumoniae* – 11%, *β-hemolytic streptococcus* group F – 5%.

After treatment, the levels of allergic and autoimmune reaction indices in general immunity (eosinophils (%), IgE (IU/ml), ANA-combi decreased significantly, a tendency to decrease in ASL-O, PCR and RF was detected, the levels of T-lymphocyte sensitization to streptococcal, staphylococcal, pneumococcal antigens decreased significantly.

Over the course of 2 years, a positive clinical evolution was observed in most children, characterized by a decrease in the number of ARIs and the use of antibiotic therapy.

Conclusions: Local therapy with autologous mononuclear cells has a strong immunostimulatory effect that has a beneficial effect on the elimination of local pathogenic flora and, as a result, normalizes the indices of allergic and autoimmune reactions in the general immune system.

Keywords: immune status, immunohistochemistry, humoral immunity, lymphocytes, autoimmune, autologous mononuclear cells.