



CLINICAL AND IMMUNOLOGICAL FEATURES AND THERAPY OPTIONS FOR RECURRENT LARYNGOTRACHEITIS IN CHILDREN

Safojeva Z.F.¹

Samiyeva G.U.²

¹⁻²Samarkand State Medical University

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Abstract. The problem of rehabilitation of children with recurrent stenotic laryngotracheitis (RSLT) remains actual because of heterogeneity of pathogenesis of recurrent episodes of croup, its clinical manifestations, effect of carried therapy and uncertainty of disease outcome.

Keywords: immunology, laryngotracheitis in children, rehabilitation

Research objective: investigation of clinical and immunological peculiarities of recurrent laryngotracheitis therapy in children

Material and methods of the study. The study enrolled 60 children (study group) aged 2 to 5 years (mean age 3.9 ± 1.1 years) with a history of more than 4 episodes of SLT (mean 7 ± 3.2) during a year, always against the background of acute respiratory infections. Children with clinical and anamnestic (presence of atopic disease in the child) and immunological (elevated IgE levels) signs of atopy, as well as those with confirmed congenital (cytomegalovirus, herpes, chlamydia) and/or persistent infections were not included in the study. The comparison group consisted of 30 conditionally healthy children.

Results obtained and their discussion. Analysis of anamnestic data showed that the recurrent course of SLT was characterized by a late onset of the first episode of SLT (at an age of 17.8 ± 3.2 months); it was more frequently registered in boys (63.3%), children often lived in environmentally disadvantaged areas of the city, and there was evidence of a family history of this disease (cases of childhood SLT in parents). Examination of the immune system cellular part revealed a decrease of relative and absolute number of mature CD3+ T lymphocytes as well as changes of T lymphocyte subpopulations (decrease of CD4+B-lymphocytes and absence of CD8+ reaction, which resulted in a significant decrease of immunoregulatory index to 1.2). An analysis of the parameters of the cellular link of the immune system revealed a certain increase of the content of CD20+ lymphocytes, a considerable decrease of the IgA level, a tendency to an increase of the IgM level against the background of the admissible IgG level, which testified to a disturbance of the switch mechanism of antibody synthesis and indirectly to a dysfunction of the T helper population. The clinical and immunological comparisons also confirm the importance of the autonomic nervous system in the formation of the immune response and





nonspecific adaptive reactions. This opens new opportunities both for therapy of acute episodes, and for development of a complex differentiated rehabilitation program for children with recurrent SLT.

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