

OPTIMIZATION OF TREATMENT FOR BRONCHIOLITIS IN CHILDREN WITH ALLERGIES

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Introduction: Bronchiolitis remains one of the most common causes of lower respiratory tract disease in young children. The presence of an allergic background contributes to a more severe and protracted course of the disease due to bronchial hyperreactivity, a pronounced inflammatory response, and a tendency toward bronchoconstriction. Bronchiolitis associated with allergies is characterized by frequent episodes of expiratory dyspnea, a prolonged cough, and a decreased effectiveness of standard therapy. In this regard, optimizing treatment strategies based on the patient's allergic status is essential. A comprehensive approach, including basic bronchiolitis therapy in combination with Bronchomunal and individualized risk factor management, facilitates faster symptom relief. Optimizing bronchiolitis treatment in children with a history of allergies improves the clinical course of the disease, shortens hospitalization, and reduces the risk of recurrent bronchoobstruction in the future.

Study objective: To determine the efficacy of Bronchomunal in the treatment of bronchiolitis in children with allergies.

Study methods: Levels of three immunoglobulin classes (A, G, M) were measured in 52 children aged 1 to 3 years hospitalized in the pulmonology department of the Regional Children's Multidisciplinary Center. Of these, 26 children received standard therapy, and 26 patients received Bronchomunal in addition to standard therapy.

Results and discussion. Immunoglobulins are key indicators of immune status. Our study found that plasma concentrations of immunoglobulins A, M, and G in frequently ill children did not change significantly after standard therapy. The immune system of children aged one to eight years, vulnerable to frequent illnesses, exhibits signs of tolerance due to a high antigen load, which may be associated with a deficiency of IgA in the serum. Plasma levels of IgM immunoglobulin in frequently ill children of all ages are typically elevated relative to normal values, both on average and in fluctuations. It is likely that the increased need for IgM in frequently ill children is due to the need for enhanced protection against respiratory infections, or that IgM immunoglobulin does not fully convert from monomeric to pentameric form. The

correlation between IgG levels and antitoxic immunity demonstrates the key role of IgG in providing protection against toxins. The kinetics of antistaphylococcal agglutinin formation in the context of various therapeutic approaches was studied during the induction phase and the productive phase after booster immunization. Initial agglutinin titers in all study groups before therapy were relatively low, ranging from 1:20 to 1:40. After administration of sodium nucleinate, an increase in agglutinin titers was recorded, reaching 1:160. However, such a significant increase was observed only in a small proportion of patients.

Conclusion: Thus, the positive effect of the developed treatment method was manifested in the disappearance of signs of intoxication and the relief of clinical symptoms in a short time, an increase in the indicators of non-specific and specific factors with the formation of antitoxic and antibacterial immunity in patients.