

## ALLERGIC DISEASES AS A RISK FACTOR FOR THE DEVELOPMENT OF BRONCHIOLITIS

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**Background.** Allergic diseases are one of the most common forms of chronic pathology in children and adults. They are characterized by the development of a persistent inflammatory process in the respiratory mucosa, accompanied by increased sensitivity to exogenous and endogenous irritants.

**Study Objective:** To identify the role of allergic diseases as a factor influencing the development, severity, and clinical outcomes of bronchiolitis in children.

**Study materials and methods.** The study involved children aged 1 month to 5 years with a history of acute bronchiolitis. A total of 46 patients were included in the study: Group 1 - 23 children with confirmed allergic diseases (allergic rhinitis, atopic dermatitis, bronchial asthma). Group 2 - 23 children without signs of allergic predisposition.

**Study results.** In the group of children with allergic diseases (Group 1), the average cough duration was  $10.2 \pm 2.3$  days, while in children without atopy (Group 2) it was  $7.8 \pm 1.9$  days ( $p < 0.01$ ). The frequency of wheezing on admission was significantly higher in Group 1 (68%) compared to the control group (42%) ( $\chi^2 = 10.56$ ;  $p < 0.01$ ). The average hospitalization duration was also increased in children with an atopic background— $7.4 \pm 1.6$  days versus  $5.9 \pm 1.3$  days in the control group ( $p < 0.05$ ). These data indicate a more severe clinical course of bronchiolitis in patients with allergic diseases. In children in Group 1, eosinophil levels were significantly higher ( $0.62 \pm 0.15 \times 10^9/L$ ) than in the control group ( $0.21 \pm 0.09 \times 10^9/L$ ;  $p < 0.001$ ). Total IgE levels were also significantly higher than in children without atopy ( $152 \pm 38$  IU/mL vs.  $48 \pm 22$  IU/mL;  $p < 0.001$ ). These differences confirm the presence of active allergic inflammation in patients in Group 1.

**Conclusion.** Allergic diseases have a significant impact on the likelihood of developing bronchiolitis and the characteristics of its clinical course. An atopic background contributes to a more pronounced inflammatory response in the small airways, which is associated with an increased risk of severe and recurrent forms of the disease. Taking into account allergic pathology in the diagnosis and treatment of bronchiolitis is an important condition for improving the prognosis and preventing the development of chronic respiratory diseases.