

FEATURES OF CLINICAL MANIFESTATIONS OF BRONCHIAL ASTHMA EXACERBATIONS IN CHILDREN DURING MARTIAL LAW

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Abstract. The prevalence of bronchial asthma (BA) among the pediatric population has nearly doubled over the past four decades and currently ranges from approximately 10–15% in most countries worldwide. In Ukraine, since 2022, since the introduction of martial law, a deterioration in the course of asthma in children has been observed compared with the pre-war period, characterized by a 13.0% increase in the frequency of severe forms and a higher proportion of mixed disease phenotypes. An asthma exacerbation is defined as an acute or subacute episode of progressive worsening of symptoms (shortness of breath, cough, wheezing, or chest tightness) accompanied by a decline in lung function, requiring prompt intensification of therapy because of potential risks to health and life.

The aim — to determine the nature of changes in the course of exacerbations of BA in children through a comprehensive assessment of clinical manifestations, their frequency and severity under martial law conditions, compared to the pre-war period.

Methods. Thirty-one children aged 6–18 years were examined, who were treated in the clinic with exacerbations of asthma during 2025 (group I) and 26 medical records of the corresponding children during the pre-war period were analyzed (group II). Clinical criteria and severity of asthma exacerbations were assessed based on objective examination data, respiratory and general symptoms, which were assessed in accordance with the Order of the Ministry of Health of Ukraine No. 2856 (2021) and the GINA 2025 recommendations.

Results. During the period of martial law, compared with the pre-war period, the frequency of mild asthma exacerbations in children decreased by half (38.7% vs 61.5%), whereas the proportion of moderate-to-severe exacerbations increased 1.6-fold. Among children with asthma exacerbations, a threefold reduction was observed in the proportion of patients who reported satisfactory well-being (19.4% vs 57.7% in the pre-war years). This was accompanied by a higher burden of respiratory symptoms (air hunger, dyspnea, retrosternal discomfort, etc.), a 2.2-fold more rapid decline in physical activity, and a poorer response to bronchodilator therapy among patients living under martial law conditions. These findings indicate a reduced level of asthma control in children during the war period.

Conclusions. During the period of martial law in Ukraine, compared with the pre-war period, unfavorable changes in the clinical course of BA in children were identified, including a 35.4% increase in hospitalizations due to exacerbations and a 22.8% rise in severe cases. War-related factors, particularly chronic psychoemotional stress and adverse living conditions, are likely to play a key triggering role in asthma exacerbations in children, contributing to poorer disease control. These findings substantiate the need to revise existing clinical management algorithms for pediatric BA and to adapt them to the new challenges and crisis conditions associated with wartime.

Key words: bronchial asthma, exacerbation, children, war.

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