

FEATURES OF THE EXACERBATIONS OF THE BRONCHIAL ASTHMA DURING POST-COVID-19 PERIOD

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Abstract. COVID-19 proceeds in waves and is unpredictable, the disease can take a severe course after a temporary improvement, so the period of recovery of patients after COVID-19 is of particular importance. Some patients with bronchial asthma (BA) have worsening of symptoms and exacerbation of asthma after COVID-19.

The aim: to investigate the features and frequency of the exacerbations of asthma during post-COVID-19 period among hospitalized to pulmonology department patients with post-COVID-19 syndrome.

Materials and methods. Clinical and functional parameters, laboratory results, the data of the chest computed tomography (CT) and fibrobronchoscopy in the dynamics in 114 patients with post-COVID syndrome who were treated in the clinical departments of the Yanovskyi National institute of phthiology and pulmonology NAMS of Ukraine were analyzed. Patients underwent microbiological examination of sputum or bronchoalveolar lavage for the presence of bacterial and fungal infection. The presence of Epstein-Barr virus (EBV) infection was determined by polymerase chain reaction (PCR) of saliva and nasopharyngeal samples.

Results. Among 114 patients (aged 18 to 85 years) with post-COVID syndrome who were in hospital treatment, 17 (14.9 %) patients had exacerbation of BA. All examined asthma patients in the post-COVID period had an uncontrolled course of asthma. In 4 (23.5 %) of 17 patients BA was combined with chronic obstructive pulmonary disease, and 3 (17.6 %) patients had bronchiectasis, 8 (47.1 %) patients were observed for cardiovascular diseases, 2 (11.8 %) — due to diseases of the digestive and endocrine systems. Seasonal allergic rhinitis was diagnosed in 4 (23.5 %) patients, annual allergic rhinosinusitis in 6 (35.3 %), and polypous ethmoiditis in 1 (5.9 %) patient. 7 (41.2 %) patients had chronic tonsillitis. According to the spirometry data, more than half of the patients had fixed bronchial obstruction and small airways obstruction. A positive test for EBV was determined in 12 (70.6 %) of 17 patients using the PCR test of saliva and nasopharyngeal material.

Conclusions. The features of the exacerbations of BA in the post-COVID period are the lack of effect from the step up of the maintenance therapy, the use of systemic steroid therapy and antibacterial therapy, the absence of the development of additional emphysematous changes in the lungs according to the chest CT data, reactivation of chronic EBV infection.

Key words: bronchial asthma, asthma control, COVID-19, post-COVID-19 period, Epstein-Barr virus.