

POSSIBILITIES OF TREATMENT OF THE PATIENTS WITH UNCONTROLLED BRONCHIAL ASTHMA WITH EPSTEIN-BARR VIRUS INFECTION REACTIVATION IN THE POST-COVID PERIOD

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Abstract. Both before the beginning of the pandemic of the coronavirus disease (COVID-19), and now, the problems of uncontrolled bronchial asthma (BA) are extremely relevant. The COVID-19 negatively affects the control of BA. Often, loss of asthma control after acute COVID-19 occurs due to secondary infectious complications, including reactivation of chronic Epstein-Barr virus (EBV) infection.

The aim: to develop a treatment scheme for patients with uncontrolled asthma with reactivation of EBV infection in the post-COVID period and determine its effectiveness.

Materials and methods. Clinical and functional indicators, laboratory results and data of chest computed tomography (CT) in dynamics in 114 patients (aged 18 to 85 years) with post-COVID syndrome who were being treated in clinical departments of National institute of phthiology and pulmonology, National Academy of Medical Sciences of Ukraine (NIFP NAMNU) were analyzed. Among them, the diagnosis of BA was found in 17 patients. The presence of EBV infection was determined by PCR of saliva and nasopharyngeal samples. Patients with reactivation of EBV infection were treated additionally to the basic BA therapy with acyclovir, tablets, 400 mg 4 times a day for 20 days; 15 drops of proteflazid for 15-30 minutes before meals 2 times a day for 2 months and local healing therapy. Asthma control before and after treatment was determined by the Asthma Control Test (ACT) and Asthma Control Questionnaire (ACQ-7) according to the GINA-2022 guidelines. All patients underwent a study of the pulmonary function before and after treatment according to spirometry data.

Results. In 12 out of 17 (70.6 %) patients with BA with post-COVID syndrome, reactivation of chronic EBV infection was detected and treated. After 20 days of treatment, the patients had an improvement in the control of asthma symptoms: ACT increased from (11.4 ± 0.7) points to (20.8 ± 0.7) points, ACQ-7 decreased from (2.6 ± 0.2) points to (0.9 ± 0.1) points, $p < 0.05$. Improvement of the condition was observed in all patients, and the clinical effectiveness of treatment in terms of symptom control (minimum clinically important difference for the AKT index — 3 points, and for ACQ-7 — 0.5 points) was achieved in 10 (83.3 %) of 12 patients. After treatment, all parameters of spirometry improved, and peak expiratory flow, forced expiratory volume in 1 second, and parameters of large-, medium-, and small- airway patency increased with reliably significant differences. The functional efficiency of the studied treatment regimen was 75.0 %.

Conclusions. For patients with uncontrolled BA with reactivation of EBV infection in the post-COVID period, in whom control of the symptoms of the disease cannot be achieved by standard methods, in addition to the basic treatment, the appointment of acyclovir, proteflazid and local healing therapy is indicated. The clinical effectiveness of the proposed treatment is 88.3 %, and the functional effectiveness is 75.0 %.

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