

VENTILATION AND DIFFUSIONAL DISORDERS IN PERSONS AFTER COMMUNITY-ACQUIRED PNEUMONIA, ASSOCIATED WITH CORONAVIRUS DISEASE (COVID-19). POSSIBILITIES OF INHALATION THERAPY

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Abstract. *The aim* of the study was to evaluate the results of our own observations of persons after community-acquired pneumonia associated with coronavirus disease (COVID-19), to determine options of functional disorders that may be observed in the post COVID-19 period, and to justify the possibility of inhalation therapy in patients with certain clinical symptoms in the post COVID-19 period, and demonstrate its effectiveness.

Materials and methods. The results of our own observations are presented in the form of descriptions of ten clinical cases of functional state of the respiratory system in persons after community-acquired pneumonia associated with COVID-19.

Conclusions. At the end of the acute period of COVID-19, the ventilatory function of the lungs in patients may be different: normal, with restrictive disorders (varying degrees of severity), with obstructive disorders (usually mild), with mixed disorders (without prevalence of certain types of changes, or with prevalence, most often, restrictive disorders). In this case, impaired diffusion capacity of the lungs is an extremely common phenomenon. Most likely, in COVID-19 in a certain category of patients, not only interstitial lung tissue but also bronchial tree tissue (mucous membrane, submucosal layer, muscles, vessels) may be involved in the pathological process. It is possible that this process may be of autoimmune origin. If there are bronchoobstructive disorders in the post COVID-19 period, patients should be prescribed bronchodilator therapy; long-acting β_2 -agonists, in particular formoterol, may be the drugs of choice. If there is a long-term recovery of lung tissue structure, given that coronavirus disease is an autoimmune disease, the use of inhaled corticosteroids should be considered individually. The combined drug Bufomix Easyhailer[®], prescribed according to the indications, has shown good efficacy and safety in the management of the patient in the post COVID-19 period.

Key words: coronavirus disease; COVID-19; pneumonia, associated with COVID-19; post COVID-19 period; spirometry; diffusion lung capacity of carbon monoxide; DLCO.

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