

COVID-19-ASSOCIATED CHANGES IN IMMUNITY AND LUNG LESIONS

O. M. Rekalova

Abstract

The review of the literature presents basic data on the mechanisms of pathogenesis of a new viral COVID-19 infection: viral damage, immune dysfunction, endothelial lesions. The features of immunological changes in the COVID-19-associated conditions of different severity and genesis of pulmonary lesions have been described. The results of studies on the features of pulmonary pathology in viral lung lesions, acute respiratory distress syndrome, chronic obstructive lung disease, interstitial pulmonary fibrosis, bronchial asthma, active and latent pulmonary tuberculosis have been presented. Additionally, some pathological mechanisms leading to the formation of long-term disease and persistent changes in the lungs after COVID-19 (fibrosis, bronchiectasis, obstructive bronchiolitis, pulmonary thromboembolism) have been outlined. The autoimmune complications due to this viral infection and vaccination against COVID-19, the features of vaccine-induced immunity and the role of cross-immunological reactivity have been reviewed.

Key words: COVID-19, SARS-CoV-2 virus, pathogenesis, immunity, lung damage.

Ukr. Pulmonol. J. 2023;31(2):13–23.

Olena M. Rekalova

SI "National institute of phthisiology and pulmonology named after

F. G. Yanovsky National academy of medical sciences of Ukraine"

Chief of the Department of Pulmonology,

Clinical Allergology and Immunology

MD, PhD, doctor of medicine, professor

10, M. Amosova str., 03038, Kyiv, Ukraine

Tel.: 38044 270 42 22, pulmonol@ifp.kiev.ua