

# PECULIARITIES OF VIRAL ETIOLOGY (COVID-19) COMMUNITY-AQUIRED PNEUMONIA IN PATIENTS WITH BRONCHIAL ASTHMA

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**Abstract. Materials and methods.** Analyzed in the dynamics CT OGK in 70 patients with community-acquired pneumonia of viral etiology (COVID-19), who were treated at the State Institution "National Institute of Tuberculosis and Pulmonology named after F. G. Yanovsky NAMS of Ukraine" in the acute period of the disease, including patients with concomitant asthma. CT OGK was performed on a scanner Aquilion TSX-101A «Tochiba» (Japan). Spirography with analysis of the «flow-volume» curve of forced exhalation was performed on the «Master Screen Pneumo» and «Master Screen PFT», «Cardinal Health» (Germany).

**Results and discussion.** Among the 70 patients with community-acquired pneumonia of viral etiology (COVID-19) who were hospitalized during the acute period of the disease and needed oxygen support, the proportion of patients with concomitant asthma was 2.9 %. Severe viral pneumonia (COVID-19) occurred mainly in patients with uncontrolled asthma, comorbidities, or long-term use of systemic glucocorticosteroids. Prior to treatment, CT OGC revealed CT signs of bilateral polysegmental viral pneumonia with symptoms of «frosted glass» and consolidation. Lesions of the lung parenchyma ranged from 50 % to 60 %. In addition to the basic asthma therapy and the standard therapy according to the national protocol "Provision of medical care for the treatment of coronavirus disease (COVID-19)", which included – oxygen therapy, anticoagulant, antibacterial, systemic glucocorticosteroid therapy, 10 days infusion therapy was prescribed: rheosorbilact 200 ml / day, xavron (edarovon) 30 mg, dissolved in 100 ml of saline, tivorel (L-arginine with L-carnitine) 100 ml / day. After 3 weeks, control CT scan of OGK was performed, on which regression of the pathological process was observed in patients with concomitant asthma – recovery of pneumatization of the lung parenchyma, absence of additional emphysematous changes. There were no symptoms of asthma exacerbation. Complications, such as toxic-allergic dermatitis, occurred after the acute period of COVID-19 and accounted for 1.4 % of all 70 subjects, and 50 % of patients with concomitant asthma.

**Conclusions.** Peculiarities of community-acquired pneumonia of viral etiology (COVID-19) in patients with concomitant asthma, needed in oxygen support are: almost complete resorption or pathologic signs in lungs during first 3 weeks (according CT) of adequate therapy, lack of development of additional emphysematous changes in lungs and signs of asthma exacerbation.

**Key words:** COVID-19, SARS-CoV-2, community-acquired pneumonia, bronchial asthma, treatment, computed tomography.