

## **Specificity of Pathomorphological Changes in Lung Tissue in Coronavirus Infection**

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### **Introduction.**

To assess the pathomorphological changes in lung tissue in patients infected with coronavirus, depending on the clinical duration of the disease.

### **Research and methods.**

In 2021, the analysis of wet archival pathologoanatomical materials obtained after 33 cases of death observed in the specialized multidisciplinary hospital "Zangi ota-2" located in Zangi ota district was studied. In this case, attention was paid to the pathomorphological changes in the lung tissue of patients with positive results of PTsR in the medical history. Typical histological samples were evaluated for stages of inflammation in lung tissue under a Leica (Germany) light microscope at 100, 200, 400 times magnification lenses.

### **Result and discussion.**

In 21% (n-7) of patients with positive PTsR results, the predominance of the exudative phase in the lung tissue was revealed, showing the following morphological features: inflammatory infiltrate consisting of blood elements in the alveolar space of the lung tissue, mainly erythrocytes, neutrophil leukocytes, lymphocytes and a collection of plasmatic cells, the walls of some alveoli have thickened and formed clay-like structures. Desquamation of epithelium of alveoli and bronchi in some places, presence of rounded basophilic or eosinophilic inclusions in some alveolocytes and their proliferation can be seen. In 12% (n-4) of patients, perivascular and peribronchial, inter-alveolar lympho-plasmacytic and macrophage infiltration, capillary fullness, thrombosis in microvessels, hemorrhagic infarcts were observed in alveolar and bronchial space in 12% of patients. It was found that the above-mentioned pathanatomical changes correspond to the exudative phase, which is observed during the one-week duration of the disease. In the lung tissue of 36% (n-12) patients, in addition to the above-mentioned pathological changes, fibrin threads, bronchiolitis, granulating pneumonia foci and metaplastic epithelium in some places can be found in the alveolar cavity. In the lung tissue of 30% (n-10) patients, interstitial pneumonia, alveolar swelling and microangiopathies are observed. These changes correspond to the more proliferative phase of the disease phase, which occurs within one week and 10 days.

### **Conclusion.**

In the early stages, the main pathological changes in the lungs occur in the exudative phase, i.e. diffuse viral-toxic damage of alveoli, thrombovasculitis of blood vessels, microangiopathy, proliferative bronchiolitis.