

# Features of the course of pulmonary tuberculosis against the background of coronavirus infection according to computed tomography of the chest organs

M.I. Lynnyk<sup>1</sup>, V.I. Ignatieva<sup>1</sup>, G.L. Gumeniuk<sup>2</sup>, V.A. Svyatnenko<sup>3</sup>, V.Ye. Ivashchenko<sup>1</sup>, O.P. Chobotar<sup>1</sup>, M.G. Palivoda<sup>1</sup>

1. SI “National Institute of Phthysiology and Pulmonology named after F.G. Yanovsky of the NAMS of Ukraine”, Kyiv, Ukraine

2. National University of Healthcare of Ukraine named after P.L. Shupyk, Kyiv, Ukraine

3. National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Conflict of interest:** none

**BACKGROUND.** Quarantine measures regarding the coronavirus disease (COVID-19) pandemic, initiated in early 2020, and subsequently large-scale hostilities in Ukraine, led to a decrease in the detection of tuberculosis (TB) patients and an increase in mortality from this disease. Particular attention needs to be paid to the peculiarities of the course of pulmonary TB against the background of a coronavirus infection, which may be due to both the features of the impact of SARS-CoV-2 and the features of the immunological status of patients with pulmonary TB with preserved sensitivity to antimycobacterial drugs (DSTB) and with drug resistance.

**OBJECTIVE.** To investigate the dynamics of the course of pathological changes in the lungs in patients with pulmonary TB against the background of coronavirus infection by analyzing the data of computed tomography (CT) of the chest organs.

## ОРИГІНАЛЬНА СТАТТЯ

**MATERIALS AND METHODS.** Establishing the diagnosis and treatment of pulmonary TB were carried out in accordance with the Order of the Ministry of Health of Ukraine No. 530. The diagnosis of COVID-19 was established in patients who were treated for pulmonary TB in accordance with the current protocols for the treatment of the coronavirus infection. All patients underwent dynamic CT of the chest organs was performed on the Aquilion TSX-101A scanner (Toshiba, Japan).

**RESULTS AND DISCUSSION.** Clinical, laboratory and X-ray data of patients with pulmonary TB and COVID-19 were analyzed in dynamics. It has been established that with timely diagnosis and adequate treatment of DSTB of the lungs, viral pneumonia (COVID-19) does not complicate the course of the TB process. The period of the course of COVID-19 is characterized by the continuation of the positive dynamics of the TB process. In patients with TB with multiple drug resistance, viral pneumonia (COVID-19) does not cause serious complications, but the period of the course of COVID-19 is characterized by the absence of positive dynamics of the TB process. With untreated pulmonary TB on the background of viral pneumonia (COVID-19), the disease can become severe and end in death.

**CONCLUSIONS.** CT of the chest organs in patients with pulmonary TB against the background of COVID-19 is highly informative in monitoring the pathological process, detecting complications and evaluating the effectiveness of treatment.

**KEY WORDS:** pulmonary tuberculosis, COVID-19, SARS-CoV-2, diagnostics, treatment, computed tomography.

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