

Original article

# MONITORING OF A SEVERE COVID-19 PATIENT WITH PNEUMOTHORAX COMPLICATIONS THROUGH RADIOLOGICAL AND LABORATORY DIAGNOSIS

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## ABSTRACT

**Introduction:** Monitoring and treatment of severely ill patients with the coronavirus disease who are on mechanical ventilation due to the severity of the disease with the development of many complications remains a challenge. The increased incidence of pneumothorax in Covid-19 patients on mechanical ventilation may be due to a combination of infection-induced parenchymal injury and inflammatory response with additional positive pressure ventilation.

**Materials and methods:** In our study, we report a case of a severe Covid-19 patient with a pneumothorax complication through radiological and laboratory diagnostics. The performed radiogram of the lungs was taken each time in the AP projection in a semi-sitting position. A digital mobile X-ray device was used for imaging. All laboratory parameters that were monitored in the patient are performed in the panel of standard routine controls for patients with Covid-19.

**Results:** The radiogram was better as the administration of therapy and chest drain were effective. Biochemical and hematological parameters are performed, which indicate a decrease in the number in blood count and biochemistry. The patient spent a total of 80 days in the hospital.

**Conclusion:** Survival of a severe form of Covid-19 infection with the complication of pneumothorax is very rare, but still possible, as shown in our case. A chest radiograph with laboratory monitoring of the condition is of great importance in establishing the diagnosis of Covid-19 infection, and in the final assessment of the patient's condition upon discharge from the hospital.

**Keywords:** Covid-19, mechanical ventilation, pneumothorax, radiological diagnostics, laboratory diagnostics.