COVID-19 PNEUMONIA IN PATIENTS WITH PULMONARY ALVEOLAR PROTEINOSIS WITH A FAVORABLE OUTCOME: A REPORT OF TWO CASES

ŽIGROVIĆ J.[1], Vincelj A.[1], Popović F.[2], Budimir B.[2], Vukić Dugac A.[1, 2], Baričević D.[2], Pevec B.[2], Štajduhar A.[2], Nekić A.[1], Hećimović A.[1, 2], Samaržija M.[1, 2], Pavliša G.[1, 2]

[1] School of Medicine, Zagreb, Croatia
University of Zagreb

[2] University Hospital Center Zagreb, Zagreb, Croatia
Department for Respiratory Diseases "Jordanovac"

Objective:

Background: Pulmonary alveolar proteinosis (PAP) is a chronic lung disease (CLD) characterized by progressive accumulation of pulmonary surfactant. This results in dyspnea, secondary pulmonary infections, and respiratory failure (1). Patients with CLD hospitalized for COVID-19 pneumonia have a higher risk of adverse events, admission to the intensive care unit, and death (2). This paper presents two patients with PAP and COVID-19 pneumonia with favorable outcome.

Case report 1: A 25-year-old woman was diagnosed with PAP in 2017. She was admitted to the hospital on the 5th day of illness due to cough, dyspnea progression and fever. PCR test was positive

for SARS-CoV-2 virus. Blood tests showed leukocytosis, C-reactive protein of 24.5 mg/dL. The chest X-ray showed bilateral interstitial infiltrates, predominantly of the right lung. She was treated with corticosteroids and antibiotic. A control chest X-ray showed partial regression of pulmonary infiltrates. She was discharged after eight days of hospitalization and significant clinical improvement. Control tests of pulmonary function (lung diffusion capacity, spirometry), performed one month after discharge, were completely normal.

Case report 2: A 53-year-old man was hospitalized due to progression of respiratory failur**e** caused by COVID-19 pneumonia. The patient was diagnosed with PAP in 2011 and since then had several therapeutic bronchoalveolar lavages. In addition to PAP, he has a history of myocardial infarction in May 2021 and coronary stent placement in circumflex coronary artery. He was hospitalized due to five days of fever, algic symptoms, and dyspnea progression. Chest X-ray showed extensive bilateral interstitial infiltrates of the lung. He was treated with corticosteroids, remdasivir, casirivimab/imdevimab combination, antibiotics, and oxygen. He was discharged after ten days of hospitalization and significant clinical improvement. Respiratory failure improved to the level before the exacerbation.

Conclusion: Both presented patients recovered well. It is crucial to monitor patient carefully and adjust the intensity of treatment based on individual clinical data to prevent complications and poor patient outcome.

Key words: Pulmonary alveolar proteinosis, COVID-19 pneumonia

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