

Letter to Editor

Rapid Progressive Pulmonary Infiltration in a Post-Coronavirus Disease 2019 Trauma Patient

Wan-Yu Hung¹, Chien-Pin Chan^{2*}

Department of General Surgery, Changhua Christian Hospital, Nanhsiao Street, Changhua, Taiwan

*Corresponding author: Chien-Pin Chan, Department of General Surgery, Changhua Christian Hospital, No. 135 Nanhsiao Street, Changhua 50006, Taiwan

Citation: Hung WY, Chan CP (2020) Rapid Progressive Pulmonary Infiltration in a Post-Coronavirus Disease 2019 Trauma Patient. J Surg 5: 1305. DOI: 10.29011/2575-9760.001305

Received Date: 09 April, 2020; Accepted Date: 13 May, 2020; Published Date: 19 May, 2020

Dear Editors,

The Coronavirus Disease 2019 (COVID-19) outbreak began in Mainland China in December 2019 and is spreading globally. Most patients with COVID-19 present with mild symptoms such as those resembling the common cold; however, clinical reports suggest varying degrees of lung damage in these patients.¹ The pulmonary characteristics of patients post-COVID-19 remain to be elucidated. Hence, we reported the case of a trauma patient with rapid progressive pulmonary infiltration, who recently recovered from COVID-19. A 51-year-old man presenting with upper airway symptoms was diagnosed with COVID-19 using the Polymerase Chain Reaction (PCR) test. Chest Computed Tomography (CT) showed the presence of ground glass opacities. The patient was provided supportive care after establishing appropriate quarantine measures. He was discharged after 1 month of hospitalization following three consecutive negative PCR results and improvement in symptoms. Unfortunately, he met with a motorbike accident seven days after discharge, resulting in the rupture of his spleen and fracture of his left 5–9th ribs [1]. There was no obvious lung contusion or pneumothorax visible on his initial chest radiograph (Figure 1, Panel A); nevertheless, abdominal CT showed ruptures spleen with contrast extravasation, grade V. Two units (1 unit = 250 ml) of packed red blood corpuscles was transfused. He underwent geofoam angioembolization and was admitted to the Intensive Care Unit (ICU). During the ICU evaluation, laboratory analysis revealed the following: hemoglobin, 14.6 g/dL and Creatinine, 0.71 mg/dL. The intravenous fluid supplemented on the first day was equivalent to 2,325 ml. His vital signs as well as hemoglobin level remained stable. However, on day 2 of his ICU course, the repeated chest radiograph showed an increased interstitial lung infiltration of the bilateral lower lobes with left pleural effusion (Figure 1, Panel B), despite no progressive pulmonary symptoms. Despite intravenous fluid supplements, broad spectrum antibiotics, and intensive chest care, his chest radiograph showed

residual infiltration with pleural effusion of the left lung (Figure 1, Panel C), and he was discharged on day 8 of hospitalization. We believe that fragile lung following COVID-19 could accelerate progressive lung infiltration in these patients. Following the end of the COVID-19 outbreak, more than two million lung damage cases will emerge; hence, massive transfusion, continuous fluid supplements, and thorough pulmonary evaluation for these trauma patients will be of concern.

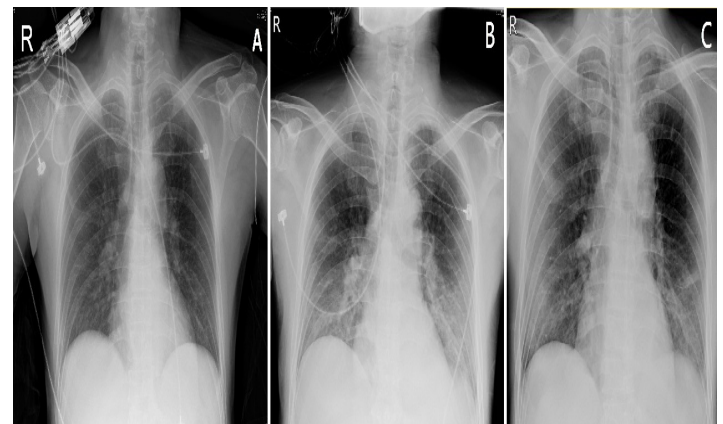


Figure 1: Panel A: There was no obvious lung contusion or pneumothorax visible on his initial chest radiograph. **Panel B:** The second day repeated chest radiograph showed an increased interstitial lung infiltration of the bilateral lower lobes with left pleural effusion. **Panel C:** The chest radiograph before discharge showed residual infiltration with pleural effusion of the left lung.

References

1. Feng Pan, Tianhe Ye, Peng Sun, Shan Gui, Bo Liang, et al. (2020) Time Course of Lung Changes On Chest CT During Recovery from 2019 Novel Coronavirus (COVID-19) Pneumonia. Radiology 2020.