

COVID-19 infection in a lung transplant recipient

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A 64-year-old man with chronic obstructive pulmonary disease (COPD) underwent a right lung transplantation three years ago. He was presented to the emergency department with severe dyspnea and coronavirus disease 2019 (COVID-19) infection was detected by throat swab. At admission, the patient's heart rate was 92 beats per minute, blood oxygen saturation was 91%, and breathing was 24 beats per minute under low flow oxygen supply. Computed tomography (CT) of the chest showed imaging changes consistent with interstitial pneumonia in the right lung graft; the left emphysematous findings were essentially unchanged (*Figure 1*). *Figure 2* shows a CT scan

of the chest 3 months before the COVID-19 infection for regular follow-up. The patient developed severe acute respiratory distress syndrome during hospitalization with an oxygenation index of 162 mmHg. The patient was treated with continuous ventilator assisted ventilation in an intermittently prone position with nirmatrelvir tablets/ritonavir tablets, Solu-Medrol, and tocilizumab injections. The patient's conditions improved 1 month after the treatment and was discharged to home. A repeat chest CT showed that the inflammatory disease in the right transplanted lung had significantly been reduced (*Figure 3*).



Figure 1 CT of the chest showed imaging changes consistent with interstitial pneumonia in the right lung graft. CT, computed tomography.

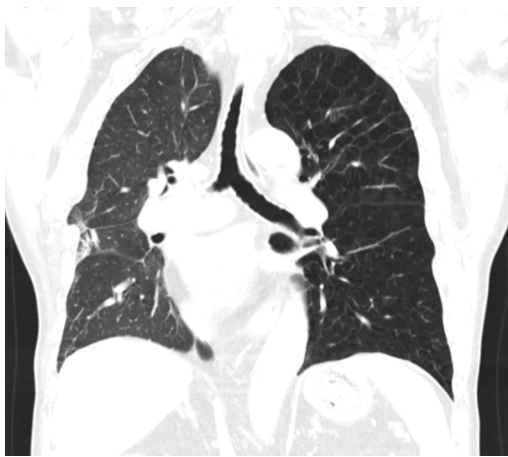


Figure 2 A CT scan of the chest 3 months before COVID-19 infection. CT, computed tomography; COVID-19, coronavirus disease 2019.



Figure 3 The inflammatory disease in the right transplanted lung was significantly reduced 1 month after treatment.

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee(s) and with the Helsinki Declaration (as revised in 2013). Written informed consent was obtained from the patient for publication of this article and accompanying images. A copy of the written consent is available for review by the editorial office of this journal.

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