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Letter to the Editor

# Letter to the Editor: Update on the followed-up CT exam of the first CoVID-19 pneumonia in Taiwan

Since the initial outbreak of CoVID 19 infection, a large amount of effort has been done to identify the characteristic of the disease.

There had been multiple reports on pulmonary fibrosis caused by CoVID-19 in recent months. Xu et al. and Wang et al. had both reported the appearance of consolidation and formation of fibrosis in the lung computed tomography (CT) in various stages of the disease.[1,2] However, resolutions of "fibrotic-like lesions" were also reported.

Pan et al. had noted patients recovery from fibrotic-like lesions, and categorized four chronicle stages of changes in CT: Normal CT or ground-glass opacities (GGO) only is found in the early stages, increased GGO and crazy-paving appearance start appearing in 5—8 days of the disease, consolidation start appearing after 9—13 days, and fibrous stripes appear after 14 days of the disease, and resolved at one month and beyond.[3]

Our case showed changes in image are consistent with their findings. Initial CT, obtained 14 days after the onset of the symptoms (Fig. 1A), demonstrated multifocal ground-glass opacities with or without superimposed reticulation and mild fibrotic change at bilateral lungs, including peripheral subpleural regions of both lobes; however, the majority of the lesions had resolved in the followed-up CT after 4 weeks (Fig. 1B), including the previously thought fibrotic changes suggesting reversibility rather than scaring.[4] The CT finding fits into the time frame of the absorptive stage as described by Pan et al.

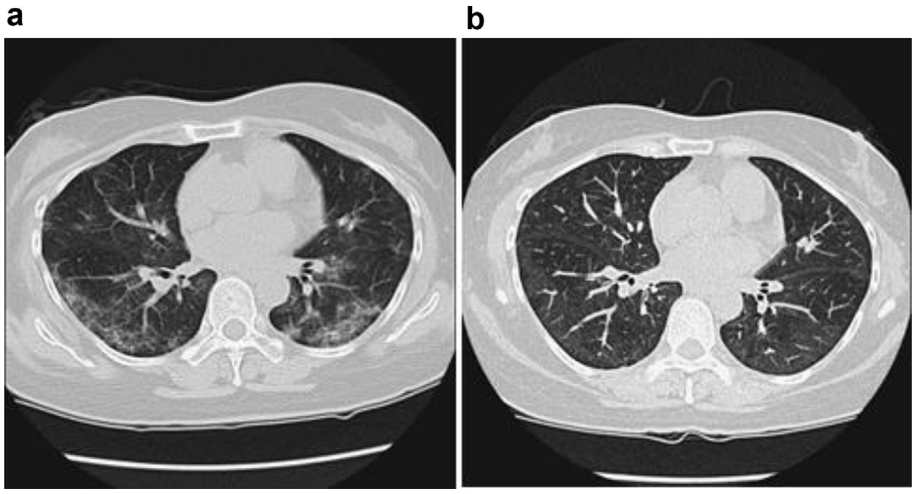


**Figure 1** Comparison of chest high resolution computer tomography of the patient infected with CoVID 19 one month apart. a. Initial CT obtained 14 days after the onset of the symptoms. Ground-glass opacity over bilateral lung was noted. Fibrosis-like lesions were also noted at the dependent part of the lung. b. CT obtained 4 weeks after the first CT. The lesions have mostly resolved with few mild residual GGOs.

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The pathophysiology of this emerging has been proposed to be similar to that of the SARS virus because of its highly homologous genome.[3] Patients with such either disease may develop ARDS, and subsequently pulmonary fibrosis. Because our patient never developed ARDS during her hospital stay, we believe that the earlier thought to be fibrotic changes found in CT may be due to injury to the alveolar epithelial cells because of an inflammatory process, but was not severe enough to cause scarring. Despite the findings on the initial CT, our patient made an almost full recovery without antifibrotic agents and antiviral agents.

In conclusion, the follow-up CT after 4 weeks of initial onset of symptoms of our patient showed an almost complete radiologic recovery without signs of pulmonary fibrosis suggesting the radiological changes are reversible.

## Declaration of Competing Interest

The authors have no conflicts of interest relevant to this article.

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