Pharmacotherapy and pulmonary fibrosis risk after SARS-CoV-2 infection

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As the pandemic progresses, the sequelaes of SARS-CoV-2 infection are causing concern and alarm. Due to the high incidence of respiratory failure and the need for mechanical ventilation in severely ill patients, there is increasing concern about pulmonary sequelae, most notably pulmonary fibrosis. Recently, Adegunsoye et al. investigated whether pharmacotherapies (amiodarone, cancer chemotherapy, corticosteroids, and rituximab) were associated with post-COVID-19 pulmonary fibrosis incidence.[1] Their study revealed that rituximab or cancer chemotherapy in hospitalized patients was associated with increased risk for post-COVID-19 pulmonary fibrosis. While the study was well designed, it had some limitations. First, pulmonary fibrosis is heterogeneous and is caused by different etiology and risk factors, and the vague inclusion of various types of pulmonary fibrosis in the analysis may overestimate the incidence and risk of pulmonary fibrosis caused by Pharmacotherapy. Recognizing the complexity and heterogeneity of fibrosis and accurately classifying it in a clinical setting is necessary to better assess risk factors. Second, existing evidence suggests that risk factors for pulmonary fibrosis in COVID-19 infection include advanced age, severity of the disease, length of ICU stay and mechanical ventilation, smoking, and chronic alcoholism.[2] However, Adegunsoye et al.'s study included a population of hospitalized patients and did not adjust for the effects of these variables such as length of ICU stay and mechanical ventilation time, which may have contributed to a bias in the results.

Contributors

Guangting Zeng and Yuchi Zhou initiated and conceptualized the idea. Guangting Zeng wrote the letter.

Declaration of interests

The authors declare no competing interest.

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