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Letter to the Editor: Combining L-Arginine with vitamin C improves long-COVID symptoms: The LINCOLN survey

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Dear Editor, We read with great interest the article from Izzo et al. [1]. Pandemic coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) have resulted tens of thousands of survivors suffering from long COVID. We appreciate excellent work done by Izzo R. et al. on combining L-Arginine with vitamin C in improving long-COVID symptoms and would like to propose some suggestions.

First, covariates including patients' age, sex, days from RT-qPCR negativization, and hospitalization for moderate/severe COVID-19 are evaluated in this study. However, some important confounders, such as patients' BMI, smoking, and vaccination status were not included. According to a large study [2], higher risk of post-acute sequelae of SARS-CoV-2 infection (PASC) is associated with smoking and obstructive lung disease. Hence, we suggested these important effect modifiers should be stratified or analyzed in this study.

Second, studies [3,4] had reported that vaccinated COVID patient have a lower incidence of post-COVID syndrome. A cohort study [2] of nine Italian centers indicated that incidence of PASC decreased in vaccinated individuals in a dose-dependent manner. Thus, we suggest that immunizations status should be considered in the inclusion or exclusion criteria of this study. Alternatively, a post-hoc analysis on vaccination status would also be informative.

Finally, recall bias and nonresponse bias are frequently found in questionnaires studies. We suggest that authors should report methods of missing data management or do further sensitivity tests on missing data or information bias.

In summary, we thank the authors for conducting this interesting study. Despite unclarified points, we are still profoundly impressed by the authors' significant results.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data Availability

No data was used for the research described in the article.

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