Call for correction: Mid and long-term neurological and neuropsychiatric manifestations of post-COVID-19 syndrome: A meta-analysis

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Transparency declarations

None to declare.

Dear Editor,

We read with great interest the article by Lavienraj Premraj *et al*. recently published in your journal [1]. This study reported the results of a systematic review and meta-analysis regarding the prevalence of neurological and neuropsychiatric symptoms after the acute phase of COVID-19, based on the National Institute for Healthcare Excellence (NICE) definition of post-acute or long COVID-19 (Long COVID). Their efforts to uncover the clinical impact of the unexplained disease are of great value, because the number of patients with Long COVID will definitely increase during this global pandemic of the Omicron variant [2]. In particular, their results provide landmark data for us because we have opened a COVID-19 aftercare clinic at our university hospital in Japan [3], to which many patients with Long COVID are transferred. Not being limited to us who intensively take care of such patients, they will certainly provide valuable information for every healthcare worker who treats patients with Long COVID. However, upon reading the manuscript, we found several concerns regarding the descriptions and number of demographic characteristics (Table 1) that should be addressed for data accuracy.

First, the total numbers in Figure 1 (22,815) and Table 1 (11,324) differ significantly. Also, the total number of "Non-hospitalized" cases (middle column in Table 1) must be 5,536, but not 55,536. This number should be revised appropriately. Second, in the manuscript (3.2. Baseline characteristics), the investigators wrote that "the mean age was 55 years (SD: 10)".

However, in Table 1, the mean age of “All Patients” was reported as “52 (10)”. Additionally, in the following sentence, the authors wrote that “Patients in hospitals were significantly older than those in the community (58 years [SD: 8] vs. 45 years [SD: 4])”. However, in Table 1, the mean (SD) age of “Hospitalized” patients (right column) is noted as “58 (7)”; thus, the SDs do not agree with each other. Third, although the number of hospital admission for “Non-hospitalized” cases (middle column) should be zero, it was denoted as “324/4465 (7)”. Given the information, we were unable to determine the cause of these discrepancies. Forth, the durations of hospital admission in “All patients” and “Hospitalised” patients should be identical, because “Non-hospitalized” cases should not be counted; however, the numbers differ. Fifth, the ICU admission numbers differ between “All patients” and “Hospitalised” patients, although they should be the same. Moreover, the term “brain fog” suddenly appears at “3.3. Prevalence of post-COVID-19 syndrome” in the Results section, without a clear definition in the Methods section.

Besides these, there may be other errors in this paper. Accordingly, the data should be rigorously reviewed and corrected throughout this paper. Without correction, no one should apply these results to clinical practice.

Conflict of Interest

None to declare.

Reference

1. Premraj L, Kannapadi NV, Briggs J, Seal SM, Battaglini D, Fanning J, et al. Mid and long-term neurological and neuropsychiatric manifestations of post-COVID-19 syndrome: A meta-analysis. J. Neurol. Sci. 434 (2022) 120162. https://doi: 10.1016/j.jns.2022.120162.

2. Tian D, Sun Y, Xu H, Ye Q. The emergence and epidemic characteristics of the highly mutated SARS-CoV-2 Omicron variant. J. Med. Virol. (2022) (*in press*). https://doi: 10.1002/jmv.27643.

3. Otsuka, Y. Tokumasu, K, Nakano, Y, Honda, H, Sakurada, Y, Sunada, N, *et al.* Clinical Characteristics of Japanese Patients Who Visited a COVID-19 Aftercare Clinic for Post-Acute Sequelae of COVID-19/Long COVID. Cureus. 13 (2021) e18568. https://doi: 10.7759/cureus.18568.