Int. j. adv. multidisc. res. stud. 2024; 4(1):139-140

Received: 22-12-2023
Accepted: 29-12-2023

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Letter to the Editor

SARS-CoV-2 Definitively Causes Guillain-Barre, but its Clinical Presentation is not Significantly Different from non-COVID Cases

[1] Sinda Zarrouk, [2] Sounira Mehri, [3] Josef Finsterer

[1] University of Tunis El Manar and Genomics Platform, Pasteur Institute of Tunis, Tunisia
[2] Biochemistry Laboratory, LR12ES05 "Nutrition-Functional Foods and Vascular Health", Faculty of Medicine, Monastir, Tunisia
[3] Neurology & Neurophysiology Center, Vienna, Austria

Corresponding Author: **Josef Finsterer**

We read with interest Toydemir *et al*'s article on a retrospective observational study of 59 patients with Guillain-Barre syndrome (GBS) diagnosed between October 2016 and September 2021 in a single centre [1]. It was concluded that SARS-CoV-2- associated GBS (SC2aGBS) was most commonly of the AIDP subtype, and presented with facial diplegia more often than GBS not associated with SARS-CoV-2 (non-SC2aGBS), that otherwise there was no difference between the two groups, that most SC2aGBS cases responded beneficially to treatment, and that their outcome was favourable [1]. The study is impressive, but several points require discussion.

A limitation of the study is that group sizes were generally small. A total of only 59 patients was included [1]. Only 9 patients with SC2aGBS were included, making statistical comparison with other groups, which were also small, unreliable. To assess the differences between SC2aGBS and non- SC2aGBS, an international, multicentre design would have been mandatory to answer the question about the differences between these two groups.

A second limitation is that how many of the patents included in group-5 were vaccinated and how many were unvaccinated was not assessed. Since the vaccination has been available since December 2020, it is conceivable that at least some of the 9 patients included were vaccinated. In vaccinated patients it should be clarified whether GBS was truly due to a SARS-CoV-2 infection or due to SARS-CoV-2 vaccination.

A third limitation is that the latency between the occurrence of COVID-19 and SARS-CoV-2 positivity in PCR and the occurrence of SC2aGBS was not specified. Knowledge of this latency period is crucial for assessing whether a causal relation can actually be established or not.

A fourth limitation is that group-4 covered the period October 2019 to September 2020, but none of these 7 patients was SARS-CoV-2 positive [1]. It is not comprehensible that 9 patients with SC2aGBS were found between October 2020 and September 2021 but none between October 2019 and September 2020 when the pandemic was already in full bloom. This discrepancy should be resolved. We should also know why patients have been asked about SARS-CoV-2 infection since March 2019. The first COVID-19 cases were reported in December 2019. The rationale for asking group-3 patients about SARS-CoV-2 infection before the pandemic should be explained.

A fifth limitation is that prevalence/incidence rates for the catchment area of the study centre were not compared between the non-SC2aGBS groups and the SC2aGBS group. It is crucial to know whether prevalence/incidence has changed during the pandemic as this question is widely debated [2]. Prevalence/incidence rates reported in the literature, however, are often not reliable as there is often no national registry for GBS cases, it is not always guaranteed that every case will be included in the registry if it was available, it is not always guaranteed that GBS has been correctly diagnosed, and that it is conceivable that mild cases are not only overlooked but also not taken to hospital and therefore not included in any registry. This is particular the case with the GBS subtype Miller-Fisher syndrome (MFS).

Acknowledgements

Statement of Ethics: The study was approved by the institutional review board.

Data availability statement: Data that support the findings of the study are available from the corresponding author.

Funding: No funding was received.

Author contribution: JF: design, literature search, discussion, first draft, critical comments, final approval. CS: literature search, discussion, critical comments, final approval.

Disclosures: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Compliance with Ethics Guidelines: This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

Keywords: Guillain-Barre Syndrome, SARS-CoV-2 Infection, COVID-19, Complication, Neuropathy

References

1. Toydemir HE, Mercan M, Yayla VA. The Profile of Guillain-Barré Syndrome before and During COVID-19 Pandemic: A 5-Year Experience. Noro Psikiyatr Ars. 2023; 60(4):322-326. Doi: 10.29399/npa.28348
2. Şirin NG. Guillain-Barré Syndrome Associated with COVID-19: Is There a Causal Relation or Just a Coincidence? Noro Psikiyatr Ars. 2023; 60(4):295-297. Doi: 10.29399/npa.28547