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Apparent onset of COVID-19 after onset of SARS-CoV-2 associated Guillain-Barre syndrome

ARTICLE INFO

Keywords

Covid-19
SARS-CoV-2
Dysphagia
Neuropathy
Guillain-barre syndrome

Letter to the Editor

We read with interest the article by Elzouki et al. who reviewed 116 cases of SARS-CoV-2 associated Guillain-Barre syndrome (SC2aG) from the literature and reported on two patients with SC2aG in whom Guillain Barre syndrome (GBS) was deemed to have been caused by a parainfectious mechanism rather than post-infectiously [1].

We would like to note that the number of patients with SC2aG reported in the literature is actually larger including patients similar to those reported by Elzouki et al. with no apparent preceding symptoms or signs of COVID-19. We have recently reviewed a group of 225 patients [2], and an additional seventy-five patients were reported by the end of June 2021 [manuscript submitted for publication].

Considering this larger cohort of SC2aG patients ($n = 300$), we noted a similar broad age range (7-94y) with a male preponderance. The onset of SC2aG was noted after, before, or at the same time of COVID-19 in 96%, 2.9%, and 1.2% of cases, respectively. The time latency between onset of COVID-19 and onset of SC2aG ranged from -10 to 90 days. The breakdown of the subtypes of GBS was similar to what Elzouki et al. found with acute inflammatory demyelinating polyneuropathy (AIDP) (77%), acute motor axonal neuropathy (AMAN) (10.8%), acute motor and sensory axonal neuropathy (AMSAN) (7%) as the top three reported subtypes. Of note, the two patients with apparent onset of GBS prior to onset of COVID-19 described by Elzouki et al. did not differ with regard to diagnosis, treatment and outcome from the seven patients with pre-COVID onset of GBS in our analysis of 300 patients with SC2aG.

Therefore, we would like to point out that the onset of SC2aG prior to onset of COVID-19 or at the same time is not as unusual. The apparent onset of SC2aG before clinical manifestations of COVID-19 can likely be attributed to a subclinical infection, the presence of mild and therefore unrecognized symptoms, or to extra-pulmonary manifestations that were not regarded as related to a SARS-CoV-2 infection [3].

In summary, we agree with Elzouki et al. that physicians should consider the co-existence of COVID-19 infection and SC2aG when encountering a GBS patient during the current COVID-19 pandemic and that the suspicion of SC2aG warrants SARS-CoV-2 testing, isolation precautions, and specific treatment for COVID-19 [1].

Ethical approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Availability of data and material

All data reported are available from the corresponding author.

Funding

None received.

Author contribution

JF: design, literature search, discussion, first draft, critical comments, FS: literature search, discussion, critical comments, final approval.

Declaration of competing interest

None.

Acknowledgements

None.

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<https://doi.org/10.1016/j.tmaid.2021.102201>

Received 15 October 2021; Received in revised form 29 October 2021; Accepted 5 November 2021

Available online 10 November 2021

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