### LETTER TO THE EDITOR



# Take children with progressive quadruparesis after SARS-CoV-2 infection seriously

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### **Dear Editor:**

We read with interest the article by Al Jaberi et al. about a 13-year-old male who developed progressive quadruparesis 2 weeks after a mild SARS-CoV-2 infection that did not require hospitalisation [1]. Only 4 weeks after onset of the neurological manifestations was there a neurological evaluation of suspected SARS-CoV-2 associated Guillain–Barre syndrome (GBS), which led to the diagnosis of acute, inflammatory demyelinating polyneuropathy (AIDP) [1]. The patient benefited from intravenous immunoglobulins (IVIG) [1]. The study is appealing but raises concerns that need to be discussed.

We disagree with the presentation that cerebral and spinal magnetic resonance imaging (MRI) was probably normal due to steroid use a few days before imaging [1]. Since steroids are often ineffective in GBS [2], enhancing nerve roots should have been visible despite application of steroids. Contrast-enhanced spinal MRI may have been unremarkable in the index case due to the 4-week latency period between the onset of clinical neurologic manifestations and imaging studies.

We should be told why the diagnosis was delayed by 4 weeks. The patient presented to the emergency department two weeks after onset of COVID-19 with progressive, ascending weakness [1]. Such a clinical picture in a child or adult should ring the alarm bells and lead to immediate clarification of the abnormalities. The delay in diagnosis and therapy of GBS has been shown to be responsible for the increased mortality of the disease [3].

It should be reported whether the patient has been tested for SARS-CoV-2 by PCR test 14 days after the episode of fever, coughing, and runny nose. The PCR should already have been positive at the onset of the neurological abnormalities.

☑ Josef Finsterer fifigs1@yahoo.de The serum titre of neutralising IgG anti-SARS-CoV-2 antibodies and its reference limits for the detection of the infection should be communicated to us.

We should be informed about the rationale for applying steroids together with intravenous immunoglobulins (IVIG) [1]. Steroids are usually ineffective for GBS [4].

We should be informed about the indication for steroids "a few days before the MRI".

Overall, the interesting study has limitations that call the results and their interpretation into question. Clarifying these weaknesses would strengthen the conclusions and could improve the study. Patients with progressive, ascending quad-ruparesis should be taken seriously and promptly evaluated neurologically, especially given that GBS can complicate both SARS-CoV-2 infections and anti-SARS-CoV-2 vaccination. Delaying the diagnosis and treatment can worsen the outcome.

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

Data availability All data are available from the corresponding author.

#### Declarations

**Ethics approval** Ethics approval was in accordance with ethical guidelines. The study was approved by the institutional review board.

Consent to participate Consent to participate was obtained from the patient.

**Consent for publication** Consent for publication was obtained from the patient.

**Conflict of interest** 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.

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## References

- Al Jaberi M, Shihadat R, Masri A (2022) Post SARS-CoV-2 Guillain-Barré syndrome in a child: case report and review of the literature. Childs Nerv Syst 23:1–6. https://doi.org/10.1007/ s00381-022-05536-1
- Ma L, Liu S, Xiao Z, Guan J, Liu Y, Yao J, Lu Z (2022) Comparison of the effects of different doses of glucocorticoids on distinct subtypes of Guillain-Barré syndrome in Southern China. BMC Neurol 22(1):46. https://doi.org/10.1186/s12883-022-02567-8
- Bose S, Loo LK, Rajabally YA (2022) Causes and consequences of diagnostic delay in Guillain-Barré syndrome in a UK tertiary center. Muscle Nerve 65(5):547–552. https://doi.org/10.1002/mus.27506
- Lin J, Gao Q, Xiao K, Tian D, Hu W, Han Z (2021) Efficacy of therapies in the treatment of Guillain-Barre syndrome: a network meta-analysis. Medicine (Baltimore) 100(41):e27351. https://doi. org/10.1097/MD.00000000027351

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