Letter to the Editor
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SARS-CoV-2 Vaccination Related, Pediatric Guillain-Barre Syndrome Requires the Same Management as in Adults

Josef Finsterer

Neurology & Neurophysiology Center, Vienna, Austria

TO THE EDITOR

With interest we read the article by Gunawan *et al.* [1] about a 14 years-old male with Guillain-Barre syndrome (GBS) triggered by the first dose of the CoronaVac anti-SARS-CoV-2 vaccine and possibly enhanced by the second jab. GBS started with tingling of all 10 fingers and progressed to numbness, quadriparesis, and left-sided facial palsy [1]. GBS was diagnosed exclusively upon the clinical presentation and nerve conduction studies (NCSs) revealing prolonged distal latencies in all peripheral nerves [1]. The patient did not receive a spinal tap or treatment and made a spontaneous, incomplete recovery until hospital discharge [1]. The study is appealing but raises concerns that warrant further discussion.

The main limitation of the study is that no cerebrospinal fluid (CSF) investigations were carried out. CSF in SARS-CoV-2 vaccination associated GBS typically shows a "dissociation cyto-albuminique" and elevation of cytokines, chemokines, and the glial fibrillary acidic protein [2].

We disagree with the diagnosis acute inflammatory demyelinating polyneuropathy, which was solely based on prolonged distal latencies [1]. If predominantly fast conducting axons are affected, distal latency can be prolonged also in an axonal lesion, such as acute, motor, axonal neuropathy.

We disagree with the second pathophysiological explanation how vaccination could trigger GBS [1]. None of the vector-based or RNA-based vaccines are known to cause a direct infection and damage of surrounding, supporting cells [1]. Currently, there is no evidence that anti-SARS-CoV-2 vaccines trigger a viral infection.

We disagree with the conclusion that the benefit of vaccination outweighs the risk of contracting the virus [1]. The statement is misleading. Possibly, the authors mean that the benefit of vaccination outweighs the risk of severe side effects. Generally, vaccinations should not trigger any side effects [3].

We also disagree with the statement that only five pediatric patients with SARS-CoV-2 vaccination associated GBS have been reported thus far [1]. When searching PubMed for the terms "GBS", "SARS-CoV-2 vaccination", "side effect", and "pediatric" several other cases could be identified [4,5].

It remains unclear whether the authors used their own reference limits for NCSs parameters or those from text books. Unfortunately, Figure 1 does not allow assessment whether nerve conduction velocities were within normal limits or not.

It remains unclear why the index patient received the second vaccine dose despite tingling of all finger tips. Tingling in all finger tips in a child should ring alarm bells.

Missing is the long-term follow-up.

Overall, the study carries obvious limitations that require re-evaluation and discussion. Clarifying these shortcomings would strengthen the conclusions and could improve the study.

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Address for correspondence: Josef Finsterer
Neurology & Neurophysiology Center, Postfach 20, Vienna 1180, Austria
E-mail: fifigs1@yahoo.de
ORCID: https://orcid.org/0000-0003-2839-7305

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■ ORCID

Josef Finsterer https://orcid.org/0000-0003-2839-7305

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