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SARS-CoV-2 vaccinations are unsafe for those experiencing post-vaccination Guillain-Barre syndrome

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Letter to the Editor

With interest we read the article by Razok et al. about a 73 years old male who developed lower limb paraparesis without sensory or bowel disturbances 16 days after the second dose of an mRNA-based SARS-CoV-2 vaccine (Pfizer) [1]. The patient was diagnosed with Guillain-Barre syndrome (GBS) based upon the clinical presentation, nerve conduction studies (NCSs) revealing absent H-reflexes and dissociation cyto-albuminique on cerebro-spinal fluid (CSF) investigations [1]. The patient experienced partial recovery upon administration of intravenous immunoglobulins (IVIGs) and was transferred for rehabilitation 12 days after admission [1]. The study is appealing but raises concerns and comments.

Missing is an extensive discussion about previously reported cases of SARS-CoV-2 vaccination associated GBS. Only a single case is mentioned [2] but at least 19 patients with SARS-CoV-2 vaccination associated GBS have been reported as per the end of June 2021 [Finsterer, submitted]. Age of these patients was 20–86 years. Nine patients were male and 10 were female. In all patients GBS developed after the first dose of the vaccine. The AstraZenica vaccine was applied in 14 cases, the Pfizer vaccine in four cases, and the Johnson & Johnson vaccine in one case. Latency between vaccination and onset of GBS ranged from 3 hours to 39 days. Treatment included IVIGs (n = 13), steroids (n = 3), or no therapy (n = 3). Six patients required mechanical ventilation. Only a single patient achieved complete recovery. Partial recovery was achieved in nine patients.

Missing is the subclassification of GBS. Though most of the cases of SARS-CoV-2 associated GBS were of the acute, inflammatory, demyelinating polyneuropathy (AIDP) type [3], several patients with acute, motor, axonal neuropathy (AMAN), acute, motor and sensory, axonal neuropathy (AMSAN), Miller-Fisher syndrome (MFS), and polyneuritis cranialis (PNC) have been reported [3]. Since treatment and response to it may vary between the various GBS subtypes, it is crucial to know if the GBS subtype was determined on follow-up NCSs.

Missing is the application of the Brighton criteria for diagnosing GBS. For the definite diagnosis according to these criteria level-1 GBS is diagnosed if there is absence of alternative diagnoses for weakness, if tendon reflexes are diminished or absent, if the disease course is monophasic and the interval between onset and nadir 0.5–28 days, if there is bilateral flaccid limb weakness, if the CSF cell count is < 50 cells/microL, if the CSF protein is increased, and if NCSs are consistent with one of the GBS subtypes [4]. The index patient fulfils at maximum criteria for diagnosing level-2 or level-3 GBS [4].

Missing is the report about the reaction of the patient to the first dose of the vaccine. We should also know if the same product was applied as for the second dose.

Not comprehensible is why the patient could not sit without support. Were the axial muscles involved? According to the provided MRI only lumbar nerve roots showed an enhancing lesion. If weakness of axial muscles was the reason for the inability to sit without support we should be told if thoracic nerve roots enhanced as well and if respiratory muscles were additionally affected. Since GBS can be complicated by respiratory failure we should know if lung function tests were within normal limits.

We do not agree with the notion that AMAN is a “demyelinating condition” a mentioned in the discussion [1]. AMAN is per definition due to an axonal lesion and delineated from AIDP by NCSs.

Overall, the report has several limitations that challenge the results and their interpretation. SARS-CoV-2 vaccination associated GBS is increasingly recognised as a complication of SARS-CoV-2 vaccinations, why neurologists should stay alert not to miss the causal relation. For the Johnson & Johnson vaccine the FDA even delivered a warning on the 12th July 2021 that the vaccination can be complicated by GBS.

Ethical approval

No patients were invovlved.

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Author contribution

Ther is only one author.

Registration of research studies

Not a research study.
1. Name of the registry:
2. Unique Identifying number or registration ID:
3. Hyperlink to your specific registration (must be publicly accessible and will be checked):

Guarantor

The corresponding author accepts full responsibility.

Consent

No patients were invovled.

Statement of ethics

Was in accordance if ethical guidelines.

Informed consent

Was obtained The study was approved by the institutional review board.

Author contribution

Josef Finsterer was responsible for design, literature search, discussion, first draft, critical comments, and final approval.

Declaration of competing interest

None.

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