

Every GBS after a SARS-CoV-2 Vaccination should Increase the Pressure on the Producers to Provide Safer Vaccines

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LETTER TO THE EDITOR

We read with interest the article by Algahtani *et al.* [Algahtani, H. A. *et al.*, 2023] describing a 46 years-old female with Guillain-Barre syndrome (GBS), subtype acute, inflammatory demyelinating polyneuropathy (AIDP), five days after having received the first dose of the BNT162b2 mRNA COVID-19 vaccine [Algahtani, H. A. *et al.*, 2023]. Comorbidities included diabetes, arterial hypertension, hypothyroidism, migraine, and a previous SARS-CoV-2 infection four months before [Algahtani, H. A. *et al.*, 2023]. The patient did not respond to intravenous immunoglobulins (IVIGs) but made an incomplete recovery after five sessions of plasma exchange [Algahtani, H. A. *et al.*, 2023]. The study is excellent but has limitations that are cause of concerns and should be discussed.

We disagree with the statement that “the benefits of administering the vaccine outweigh the risks” [Algahtani, H. A. *et al.*, 2023]. Any complication caused by any of the vaccines in one too many and should be avoided. This goal can be particularly achieved by forcing pharmaceutical companies to invent safer vaccines with less or no side effects. As soon as the approval practice for vaccines is relaxed and the testing standards for such products are abandoned, there is a risk that the vaccinees will suffer damage. The consequence of this is that side effects occur which themselves put a strain on the health budget. These side effects, the number of which is probably significantly higher than expected, lead to considerable social and psychological stress and economic damage due to long-term incapacity to work.

There is neither specification nor discussion of the recurrent syncopes of the index patient [Algahtani, H. A. *et al.*, 2023]. We should know whether or not these syncopes were triggered or untriggered and due to autonomic involvement in GBS, hypohydration, orthostasis, ventricular tachycardia, heart failure, seizures, or carotid

artery stenosis. Cerebral and cardiac causes need to be convincingly ruled out as SARS-CoV-2 vaccinations can be complicated by serious cerebral as well as cardiac complications. Cerebral complications of SARS-CoV-2 vaccinations that could lead to syncopes include stroke, bleeding, venous sinus thrombosis, encephalitis, acute disseminated encephalomyelitis (ADEM), and several others [Finsterer, J, 2022]. Cardiac complications of SARS-CoV-2 vaccinations that can be associated with syncopes include myocarditis, pericarditis, or Takotsubo syndrome.

Another limitation of the study is that the risk factors for polyneuropathy in the index patient were not extensively discussed. There is no mention how well the blood sugar was adjusted. Knowing the HbA1c values is crucial to assess whether diabetes contributed to the development of GBS. We also should know the current thyroid stimulating hormone (TSH) and thyroxin levels. There is also no mention of serum vitamin levels, and whether or not the patient was alcoholic. There is no mention of the current medication.

In summary, the interesting study has limitations that put the results and their interpretation into perspective. Addressing these issues would strengthen the conclusions and could improve the status of the study. In patients with SARS-CoV-2 vaccination-related GBS, risk factors of polyneuropathy need to be thoroughly evaluated. In view of the many vaccinees with serious side effects after SARS-CoV-2 vaccinations, the health authorities and politicians should take action and the vaccine producers should produce safer vaccines.

REFERENCES

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