Int. j. adv. multidisc. res. stud. 2026; 6(6):1249-1250

Received: 08-11-2026
Accepted: 18-11-2026

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Letter to the Editor

Guillain-Barre Syndrome can be Attributed to Tetanus Toxoid Vaccination only after Exclusion of all Alternative Triggers

Josef Finsterer
Department of Neurology, Neurology & Neurophysiology Center, Vienna, Austria

Corresponding Author: **Josef Finsterer**

Letter to the Editor

We read with interest the article by Shah *et al*. about a 12-year-old boy who developed Guillain-Barré syndrome (GBS), specifically acute inflammatory demyelinating polyneuropathy (AIDP). A tetanus vaccination three weeks prior to the onset of the illness was considered the cause [1]. The patient was treated with intravenous immunoglobulins (IVIG) and discharged after ten days due to gradual improvement [1]. The study is promising, but some points require further discussion.

First, alternative triggers of Guillain-Barré syndrome (GBS) have not been sufficiently ruled out [1]. GBS is most commonly triggered by pulmonary or gastrointestinal infections prior to the onset of symptoms [2]. Because such infections may be subclinical or mild, they are easily missed and remain undetected. Therefore, it is advisable to screen patients with GBS without an identifiable trigger for subclinical infections. Common infectious triggers of GBS include Campylobacter jejuni, Haemophilus influenzae, Mycoplasma pneumoniae, E. coli, varicella-zoster virus (VZV), HIV, Zika virus, Epstein-Barr virus (EBV), influenza, SARS-CoV-2, hepatitis A, hepatitis B, hepatitis C, HDV, HEV, CMV, rubella, West Nile virus, Japanese nephritis, and chikungunya [2]. In addition, immunological diseases, trauma, and sepsis must be considered as potential triggers of GBS. Identifying the trigger is crucial, as not only the GBS itself but also the underlying cause must be treated.

The second point concerns the patient's elevated blood pressure and tachycardia [1]. Was this solely due to the stress of hospital admission, or were the hypertension and heart rate persistently elevated? Did they only normalize after administration of IVIGs? Was autonomic involvement in GBS considered and investigated? Clinical manifestations of autonomic insufficiency in a 12-year-old boy can include arterial hypotension, orthostatic hypotension, dizziness, lightheadedness, shortness of breath, blurred vision, dysphagia, hypoglycaemia, mood swings, or anxiety. Did the patient also exhibit these autonomic symptoms in addition to his motor and sensory deficits?

Third, some useful investigations to confirm the diagnosis were not performed [1]. The results of the ganglioside antibody test are missing [1]. Ganglioside antibodies whose concentrations are elevated in GBS include GM1, GD1a, GT1a, GQ1b, and GD1b [3]. Magnetic resonance imaging (MRI) of the lumbar nerve roots with contrast medium to document swelling and contrast enhancement of the lumbosacral nerve roots is also missing. Furthermore, the patient's long-term course is not documented. Had he fully recovered at the last follow-up examination? In conclusion, GBS can only be attributed to the tetanus toxoid vaccination if all other causes have been ruled out.

Declarations

Ethical approval: Not applicable.

Consent to participation: Not applicable.

Consent for publication: Not applicable.

Funding: None received.

Availability of data and material: All data are available from the corresponding author.

Completing interests: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Author contribution: JF was responsible for the design and conception, discussed available data with coauthors, wrote the first draft, and gave final approval. xx: Contributed to literature search, discussion, correction, and final approval.

Acknowledgements: None.

Keywords: Guillain-Barre Syndrome, Acute, Inflammatory, Demyelinating, Polyneuropathy, Tetanus Toxoid, Nerve Conduction Studies, Intravenous Immunoglobulins

References

1. Shah BK, Sah S, Pandey P, Kurmi S. Guillain-Barré Syndrome Following Tetanus Toxoid Vaccination: A Rare Case Report from a Tertiary Care Centre. Kathmandu Univ Med J (KUMJ). 2025; 23(90):239-241.
2. Finsterer J. Triggers of Guillain-Barré Syndrome: *Campylobacter jejuni* Predominates. Int J Mol Sci. 2022; 23(22):14222. Doi: 10.3390/ijms232214222
3. Yuki N. Guillain-Barré syndrome and anti-ganglioside antibodies: A clinician-scientist's journey. Proc Jpn Acad Ser B Phys Biol Sci. 2012; 88(7):299-326. Doi: 10.2183/pjab.88.299