

Before attributing Guillain-Barré syndrome to an adenovirus infection, alternative causes must be thoroughly ruled out

Josef Finsterer¹ 

¹Neurology and Neurophysiology Center, Austria.

We read with interest the article by Tychiboeva et al. about two pediatric patients (Patient-1, 4 years old, boy; Patient-2, 6.5 years old boy) who were both diagnosed with Guillain-Barré syndrome (GBS) of the acute inflammatory demyelinating polyneuropathy (AIPD) subtype, triggered by an adenovirus infection.¹ Patient-1 partially recovered after administration of intravenous immunoglobulins (IVIG), and Patient-2, who also required mechanical ventilation for 7 days, showed improvement after IVIG administration and plasmapheresis.¹ The study is interesting, but a couple of points require discussion.

First, alternative triggers of GBS were not considered and ruled out in the two patients.¹ Since adenoviruses rarely cause GBS² and the patients were recruited during the pandemic, testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) would have been essential. Because SARS-CoV-2 can be associated with superinfections³ and is a common trigger of GBS, it is conceivable that the actual cause of GBS was a SARS-CoV-2 infection rather than the adenovirus infection. Furthermore, since patient-2 also presented with gastrointestinal symptoms, it would have been crucial to rule out a prior infection with *Campylobacter jejuni*, the most common cause of GBS.⁴ Other rare GBS triggers that should have been excluded include infections with

cytomegalovirus, hepatitis B and C viruses, Epstein-Barr virus, varicella zoster virus, Zika virus, dengue, and *Mycoplasma pneumoniae*. It should also be clarified whether the patient had received any vaccinations before the onset of GBS.

The second point concerns the fact that no contrast-enhanced magnetic resonance imaging of the lumbar spine was performed in Patient-1.¹ To document thickening and contrast enhancement of the lumbar nerve roots, it would have been helpful to confirm GBS imaging-based, as was done in Patient-2.

In conclusion, adenoviruses should not be considered as a cause of GBS as long as all other triggers have been thoroughly ruled out.

Author contribution

The authors confirm contribution to the paper as follows: Study conception and design: JF; data collection: JF; analysis and interpretation of results: JF; draft manuscript preparation: JF. All authors reviewed the results and approved the final version of the manuscript.

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✉ Josef Finsterer ▪ ffigs1@yahoo.de

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Conflict of interest

The authors declare that there is no conflict of interest.

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