Comment on: A relapse of Guillain-Barre syndrome caused by SARS-CoV-2 is not uncommon

To the Editor

We have read with interest the article by Drakulic et al. about a 30 year-old female diagnosed in October 2017 with Guillain-Barre syndrome (GBS), subtype acute inflammatory demyelinating polyneuropathy (AIDP), with incomplete recovery, who experienced a second GBS, subtype AIDP, 14 days after having been tested positive for SARS-CoV-2 in April 2021.[1] At the 10-day follow-up after starting intravenous immunoglobulins (IVIGs) the patient was still quadriparetic and had facial diplegia.[1] The study is excellent but raises concerns that should be discussed.

A recurrence or relapse of GBS is not uncommon. There were cases of GBS occurring before the pandemic with a relapse of GBS triggered by SARS-CoV-2.[2,3,4] There are also cases of GBS associated with SARS-CoV-2, where a second GBS episode was triggered again by SARS-CoV-2.[5] In addition, there are patients who experienced GBS before the pandemic that relapsed before the pandemic again.[6]

In the index case, it remained unclear whether the second AIDP was interpreted as a recurrence triggered by SARS-CoV-2 or whether the second AIDP was simply a relapse of the first GBS. Arguments for relapse are that the patient did not fully recovery from the first GBS and that the second GBS was also of the AIDP subtype.

According to these cases and clinical experience, previous GBS appears to predispose to recurrence of polyradiculitis triggered not only by SARS-CoV-2 but also by alternative triggers.

A limitation of the study is that no follow-up was performed after the second GBS episode. To assess whether IVIGs had a beneficial effect or not, close follow-up examinations are required so as not to miss the point at which further diagnostic or therapeutic measures are indicated.

A second limitation of the study is that it did not mention whether the index patient was vaccinated against SARS-CoV-2. Vaccinations against SARS-CoV-2 were already available in April 2021. Knowing the vaccination status is important because not only SARS-CoV-2 infections but also SARS-CoV-2 vaccinations can trigger GBS.

A third limitation is that alternative triggers of the second GBS in the index patient were not sufficiently ruled out.

A fourth limitation of the study is that reference limits for blood and cerebrospinal fluid parameters were not provided.

Overall, the interesting study has limitations that call into question the results and their interpretation. Clarifying these weaknesses would strengthen the conclusions and could add value to the study. Patients with previous GBS, particularly AIDP, appear to be at increased risk of recurrence of GBS caused by SARS-CoV-2.

Sounira Mehri, Biochemistry Laboratory,
LR12ES05 "Nutrition-Functional Foods and Vascular Health", Faculty of Medicine,
Monastir, Tunisia
Josef Finsterer,
Neurology & Neurophysiology Center, Vienna, Austria

Reply from the Author

In letter to editor, provided by Dr. Josef Finsterer, limitations of our study has been discussed. We will answer point by point.

First, at the time of writing this case, our patient did not show up on follow up examination, because Covid-19 epidemic got worse in our country, but patient informed us about her recovery. Few months later, patient was once again hospitalised in rehabilitation center. After the rehabilitation, follow up examination showed that deficits almost completely resolved.

Second, our patient was not vaccinated against SARS-CoV-2.

Third, all alternative triggers of the second GBS were ruled out. Patient was not vaccinated, patient had no signs of GI infection, no diarrhea, no history of surgery. Also, laboratory results excluded other viral infection than Covid-19.

Fourth, reference limit for CSF protein level was up to 0.5g/l, and reference limit for D-dimer was up to 0.5µg/ml. We hope that you will be satisfied with our response.

Vladimir S. Jankovic
Department of Neurology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

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