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Letter to the Editor

SARS-CoV2 associated Guillain-Barre syndrome is common but nonetheless under-recognised and under-reported

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We appreciated to read the valuable paper by Hanif and co-workers about a 32yi SARS-CoV-2 (SC2) positive female who developed lower limb weakness with reduced tendon reflexes but without sensory disturbances 16d after a positive PCR test for SC2 [1]. As work-up for Guillain-Barre syndrome (GBS) revealed demyelinating sensori-motor neuropathy and albuminocytologic dissociation in the cerebro-spinal fluid (CSF), the patient was diagnosed with acute, inflammatory demyelinating polyneuropathy (AIDP) and underwent plasmapheresis with a beneficial effect [1]. The study is attractive but has some shortcomings.

We disagree with the message that only a few cases with SC2 associated GBS (SAG) had been published so far. By the end of December 2020 at least 220 SAG cases have been published [2]. By the end of June 2021, the number of published SAG cases increased to at least 300 [Finsterer, submitted]. Among these 300 SAG patients age ranged from 7 to 94y. The male to female ratio was 2.18. The period between onset of COVID-19 respectively the positive SC-2 test and the onset of SAG ranged between -10 days and 90 days. CSF contained SC2 RNA only in one case. GBS subtypes included patients with AIDP (n=171), acute, motor axonal neuropathy (n=24), acute, motor and sensory axonal neuropathy (n=16), Miller-Fisher syndrome (n=8), poly-/ mono-neuritis cranialis (n=3), and the pharyngo-cervico-brachial variant (n=1). Treatment included intravenous immunoglobulins (IVIGs, n=241), plasmapheresis (n=28), and steroids (n=7). Artificial ventilation was required in 59 patients. Complete recovery was achieved in 42 patients, partial recovery in 163 patients, and 17 patients died.

Missing is the information if the CSF was tested positive or negative for SC2 RNA. As only two cases were positive for virus RNA in the CSF so far, as only one case with antibody positivity has been reported [3], and as SAG is an immunological and not an infectious polyradiculitis, one would expect that the CSF in the index patient was negative for SC2 as well.

Missing is the discussion about GBS due to SC2 vaccinations. Since the introduction of SC2 vaccinations in 12/2020, at least 19 patients with post-vaccination GBS had been published until the end of June 2021 [4]. The 19 patients were 20 to 86 years old and the male to female ratio was 0.9. Post-vaccination GBS developed in all patients after the first jab. Fourteen patients received the AstraZeneca vaccine, four the Pfizer vaccine, and one patient the Johnson vaccine. The time from vaccination to onset of GBS amounted to 3-39 days. The patients received IVIGs (n=13), steroids (n=3), or no therapy (n=3). Mechanical ventilation was indicated in 6 patients. The outcome was poor despite immediate adequate treatment.

In conclusion, SAG is not a rare condition and most likely under-recognised and under-reported. Not only the virus triggers SAG but also SC2 vaccinations. SAG responds favourably to immediate treatment with IVIGs, plasmapheresis, or steroids. Most effective appears to be the zipper concept [5], which relies on the alternate application of IVIGs and plasmapheresis.

Declarations

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