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Chronic inflammatory demyelinating polyneuropathy after SARS–CoV2 vaccination: update of the literature and patient characterization

| REVIEW | [Published: 03 July 2023](#) | 71, 833–838 (2023)**[Immunologic Research](#)**[Aims and scope](#) →[Submit manuscript](#) →[Federica Ginanneschi](#) , [Claudia Vinciguerra](#), [Nila Volpi](#), [Giuseppe Piscoquito](#), [Paolo Barone](#) & [Alessandro Rossi](#) 220 Accesses  29 Altmetric  1 Mention [Explore all metrics](#) →[Cite this article](#)

Abstract

Since the beginning of worldwide vaccination against COVID-19 disease, some reports have revealed a possible relationship between SARS CoV2 vaccination and chronic inflammatory demyelinating polyneuropathy (CIDP). We reviewed the available evidences regarding this topic, adding three new cases to those reported so far, with the purpose to outline the characteristics of these post-vaccinal CIDP. Seventeen subjects were studied. A total of 70.6% of CIDP cases were related to viral vector vaccines, most occurring after the administration of the first dose. CIDPs that occurred after the second dose (17%) were temporally associated with mRNA vaccines. The clinical course and electrophysiology of all patients met the criteria for acute-subacute CIDP (A-CIDP). Administration of the viral vector vaccine was significantly correlated with a higher probability of having cranial nerve impairment ($p = 0.004$). The electrophysiological phenotype, laboratory and imaging data, and first-line therapies were substantially similar to those of the classical CIDP. The take-home message of the present paper is that the SARS CoV2 vaccine, especially the AstraZeneca vaccine, may be associated with inflammatory neuropathies with acute onset, often indistinguishable from Guillain-Barré syndrome (GBS). Hence, the importance of tracked prospectively patients with GBS occurred post-SARS-CoV2 vaccine. Distinguishing GBS from A-CIDP is crucial because treatment strategies and long-term prognosis are different.

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Abbreviations

A-CIDP: Acute chronic inflammatory demyelinating polyneuropathy

AZ: AstraZeneca

GBS: Guillain-Barré syndrome

MRI: Magnetic resonance imaging

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Ethics declarations

Conflict of interest

The authors declare no competing interests.

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