

## 9. COVID-19 ASSOCIATED GUILLAIN-BARRÉ SYNDROME

**Author:** Yaron Kuchuk

**Scientific adviser:** Evelina Gherghelegiu, MD, Assistant Professor, Department of Neurology No.1, *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova.

**Introduction.** In this review, we will summarize a few reviews and try to show possible connections between COVID19 and GBS.

**Aim of study.** Guillain-Barré syndrome [GBS] is an autoimmune disorder causing nerve damage, muscle weakness and paralysis. Antibodies formed may be against myelin or against axons. GBS ranges from a mild case with brief weakness to deadly paralysis, and symptoms last for a few weeks to several years. Usually, patients recover fully. The typical causes of GBS are C. jejuni, flu, CMV, EBV, Zika virus and lately, raised concerns about connection between Covid19 and GBS.

**Methods and materials.** This systematic review aimed to summarize and meta-analyze the salient features and prognosis of SARS-CoV-2-associated GBS. We searched the PubMed (Medline), Web of Science and Cochrane databases using SARS-CoV-2 and GBS-related keywords.

**Results.** Through the process of analyzing the symptoms of GBS in COVID-19, some patients developed hyperreflexia instead of hyporeflexia, especially with the AMAN subtype so hyperreflexia must be included in the future diagnostic criteria of GBS.

**Conclusion.** The association between COVID-19 and GBS is unclear, but there is one mechanism strongly associated with COVID-19 and immune-mediated neurological complications, which is the molecular mimicry between SARS-coV-2 and human autoantigens.