

# Miller Fisher syndrome and polyneuritis cranialis in COVID-19

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## Study objective

To report 2 patients infected with SARS-CoV-2 who presented with Miller Fisher syndrome and polyneuritis cranialis, respectively.

## What is known and what this paper adds

Patients infected with SARS-CoV-2 have presented with neurologic signs, symptoms, and syndromes. These cases add Miller Fisher syndrome and polyneuritis cranialis as potential neurologic manifestations of SARS-CoV-2 infection.

## Design, size, and duration

The investigators extracted data concerning the patients' clinical features and outcomes from hospital records.

## Participants and findings

The first patient was a 50-year-old man who developed anosmia, ageusia, right internuclear ophthalmoparesis, right fascicular oculomotor palsy, ataxia, areflexia, and albuminocytologic dissociation and tested positive for immunoglobulin G antibodies

against ganglioside GD1b. This picture was consistent with Miller Fisher syndrome. He had a positive oropharyngeal swab test by PCR for SARS-CoV-2. PCR in CSF was negative. He was treated with IVIg and made a complete recovery. The second patient was a 39-year-old man who presented with ageusia, bilateral abducens palsy, areflexia, and albuminocytologic dissociation. The picture was consistent with polyneuritis cranialis. PCR was positive in the oropharyngeal swab but negative in CSF.

## Bias, confounding, and other reasons for caution

The patients did not undergo electromyography, nerve conduction studies, or MRI. The presence of Miller Fisher syndrome and polyneuritis cranialis in these 2 patients could have been coincidental.

## Study funding/potential competing interests

This study was funded by Fondo Europeo de Desarrollo Regional. Some authors report additional competing interests. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

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