


## Guillain–Barre/Miller–Fisher overlap syndrome or acute, motor and sensory, axonal neuropathy with cranial nerve involvement?

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### Letter to the Editor

With interest, we read the article by Liang et al. about a 64 y-old male with Guillain–Barre syndrome (GBS) Miller–Fisher syndrome (MFS) overlap syndrome starting 11 d after the second jab of the Sinovac-CoronaVac vaccine.<sup>1</sup> Intravenous immunoglobulins (IVIg) and acupuncture resulted in complete recovery at the last follow-up, 54 d after dismissal. The study is attractive but raises concerns that require further discussion.

We disagree with the diagnosis GBS-MFS overlap syndrome.<sup>1</sup> According to the nerve conduction studies (NCSs) the patient had axonal, sensorimotor neuropathy.<sup>1</sup> Because there was obvious dissociation cyto-albuminiquic,<sup>1</sup> the patient should be classified as acute, motor and sensory, axonal neuropathy (AMSAN) with cranial nerve involvement rather than GBS-MFS overlap. Cranial nerves affected in the index patient were the 6<sup>th</sup> and 7<sup>th</sup> cranial nerve.<sup>1</sup> AMSAN is more prevalent in the Eastern compared to the Western hemisphere, where acute, inflammatory demyelinating polyneuropathy (AIDP) prevails. Arguments against MFS are that the patient had facial palsy and that ophthalmoparesis was incomplete. Only bulb abduction was impaired, whereas in MFS there is usually ophthalmoparesis for all degrees of eye movements.

Missing are the cytokine and chemokine levels and the titers of the glial acidic fibrillary protein (GAFP) in the CSF. These parameters have been found elevated in GBS or central nervous system disease following a SARS-CoV-2 vaccination.<sup>2</sup>

We disagree with the notion that the index is the first presenting with MFS-GBS overlap syndrome.<sup>1</sup> Though rare, GBS-MFS has been previously reported in single patients.<sup>3</sup>

Missing is the information whether the autonomic innervation of the heart was impaired or not. AMSAN commonly is associated with autonomic dysfunction, which is why we should know if blood pressure regulation was impaired or not and whether supra-ventricular or ventricular arrhythmias were detected on long-term electrocardiogram (ECG) recordings or telemetry. Particularly, we should know if the Valsalva maneuver was positive or negative, if there was postural tachycardia syndrome (POTS), increased or decreased heart rate

variability on frequency analysis of long-term (ECG) recordings, and an abnormal tilt test. We should also know if there were clinical or echocardiographic signs of heart failure and if troponin or pro-brain natriuretic peptide (pro-BNP) were elevated or not.

The term “right facial diplegia” is misleading.<sup>1</sup> Do the authors mean facial diplegia with right-sided predominance or do they truly mean right-sided facial palsy without affection of the contralateral side?

Overall, the study carries obvious limitations that require reevaluation and discussion. Clarifying these weaknesses would strengthen the conclusions and could improve the study. MFS is questionable if the facial nerves are affected in addition to cranial nerves innervating extra-ocular eye muscles.

### Author contribution

SM: design, literature search, discussion, first draft, critical comments, final approval, JF: literature search, discussion, critical comments, final approval.

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### Data availability

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