



Letter to the Editor

Steroid-responsive, transverse myelitis is a known complication of COVID-19

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Letter to the Editor

With interest we read the article by Moreno-Escobar et al. about a 41yo male with COVID-19 who experienced transverse myelitis as a neurological complication of the viral infection (Moreno-Escobar et al., 2021). It was concluded that the index patient is the first reported case of transverse myelitis and dysautonomia in a patient with SARS-CoV-2 infection who responded to intravenous methyl-prednisone and bromocriptine (Moreno-Escobar et al., 2021). The report is appealing but raises the following comments and concerns.

We do not agree that the index patient is the first case with SARS-CoV-2 associated transverse myelitis who benefited from intravenous methyl-prednisolone (Moreno-Escobar et al., 2021). Recently, a 63yo male has been reported who developed transverse myelitis four days after clinical onset of COVID-19 who benefited from intravenous methyl-prednisolone and intravenous immunoglobulins (Shahali et al., 2021). In a second patient with SARS-CoV-2 associated transverse myelitis, spinal MRI documented a T2-hyperintense signal C3-T1 together with mild lymphocytic pleocytosis (Kilbertus, 2021). This patient also benefited from methyl-prednisolone (Kilbertus, 2021). Additionally, several patients with SARS-CoV-2 associated myelitis and beneficial response to steroids were listed in table-1 of the paper (Moreno-Escobar et al., 2021).

The time course of the various medical events is not clearly traceable. The patient visited his primary care clinic “a few weeks ago” for headache, nausea, and low-grade fever (Moreno-Escobar et al., 2021). There the patient was tested positive for SARS-CoV-2 and self-quarantined (Moreno-Escobar et al., 2021). During quarantine he developed fatigue, myalgia, and low-grade fever, and urinary hesitancy requiring disposable catheterisation (Moreno-Escobar et al., 2021). We should know if fever prior to quarantine persisted until and during quarantine or if fever during quarantine newly developed. We also should know what is meant with “after his diagnosis”. If the authors mean COVID-19 the patient developed urinary retention already during quarantine, 1–2 weeks after onset of the viral infection and not “a few weeks later”.

There is a discrepancy between symptoms and signs. The patient reported, amongst others, sensory disturbances of his right face and right upper limb but the clinical neurologic exam did not reveal any facial or right upper limb sensory disturbance (Moreno-Escobar et al., 2021). We should be told how to explain this discrepancy. An

explanation is also required for right facial and limb upper limb sensory disturbance in the absence of a cerebral lesion on MRI. Pleocytosis alone does not explain these symptoms. We should know which types of MRI modalities were applied. Furthermore, there is a discrepancy between the patient-reported sensory disturbances in four limbs and right-sided sensory hemisindrome on admission. This issue requires clarification. An explanation is also required for the discrepancy between transverse myelitis, which usually affects also the dorsal columns, and absence of any proprioceptive disturbance or disturbed vibration sense. Unfortunately, no axial image of the spinal cord was provided to assess if the dorsal columns were affected or not.

A differential the authors did not consider is acute, demyelinating encephalo-myelitis (ADEM). ADEM has been repeatedly reported as a complication of COVID-19 and can affect the brain (Shahmirzaei and Naser, 2021) or the spine (de Miranda Henriques-Souza et al., 2021). A shortcoming is that the CSF was not investigated for SARS-CoV-2.

Overall, the interesting report has limitations which should be addressed before drawing final conclusions. The time course of the abnormalities needs to be specified and a plausible explanation for right-sided sensory disturbances provided. Transverse myelitis favourably responding to prednisolone is not a new entity but has been previously reported as a neurological complication of COVID-19.

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Author contribution

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

Informed consent

Was obtained.

Ethics approval

The study was approved by the institutional review board.

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Consent to participate

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Consent for publication

Not applicable.

Declaration of Competing Interest

The authors declare no conflicts of interest.

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