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PSYCHIATRIC MANIFESTATIONS OF SARS-COV-2 INFECTIONS (PSYCHO-COVID)

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Dear editor,

We eagerly read the review article by Moretti et al. on the neurotropism and neuropsychiatric manifestations of SARS-CoV-2 infections (Moretti 2021). It has been established that ageusia, anosmia, and encephalitis are common neurological manifestations of SARS-CoV-2 infections and that delirium is not only a potential complication of SARS-CoV-2 infections but can be triggered by a range of environmental factors (Moretti 2021). It was concluded that neuropsychiatric symptoms, particularly delirium, can help detect the infection at an early stage (Moretti 2021). The study is promising but raises concerns that need to be discussed.

We disagree with the conclusions that delirium can help identify COVID-19 (Moretti 2021). Although delirium has occasionally been reported as a psychiatric manifestation of COVID-19, it has only rarely been reported as onset manifestation of the disease (Butt 2021). Therefore, while COVID-19 can be suspected in the presence of delirium, various differentials of delirium must be ruled out and the virus detected by PCR from naso-pharyngeal swabs, before COVID-19 can be diagnosed in the presence of delirium.

We disagree with the notion that anosmia, ageusia, and encephalitis are the most common neurological manifestations of SARS-CoV-2 infections (Moretti 2021). Several studies have found that headache is the most common neurological symptom in SARS-CoV-2 infected patients (Albarran-Sanchez 2021). The most common neurological complication besides headache, anosmia, and ageusia, is cerebro-vascular disease, including intra-cranial bleeding (subarchnoid bleeding, intracerebral bleeding, microbleeds), venous sinus thrombosis, and stroke (Albarran-Sanchez 2021, Gonzalez-Gonzalez 2021).

We disagree that COVID-19 is associated with hypoxia (Moretti 2021). Patients with severe COVID-19, who require oxygen supplementation, are usually well monitored and are

never hypoxic. Only COVID-19 patients requiring resuscitation may experience hypoxia during the procedure when performed by laypersons. Typical features of cerebral hypoxia can only be detected in the cerebral MRI in these cases.

A number of psychiatric manifestations of COVID-19 have incomprehensibly gone untreated. In a review of the neuropsychiatric manifestations of COVID-19 patients, the full spectrum of psychiatric disorders associated with COVID-19 should at least be mentioned. Isolated hallucinations (Pleszkó 2021), schizophrenia (van Reekum 2021), akinetic mutism, mood disorders, autism spectrum disorders, eating disorders, anxiety disorders, and sleep disorders were not discussed in the review.

It lacks discussion of the term "brain fog", which has been used repeatedly to describe the psychiatric condition in COVID-19 patients. We should be told if the term refers to dizziness, confusion, delirium, or disorientation.

Overall, the interesting review has limitations that call their results and interpretation into question. The spectrum of psychiatric disorders associated with SARS-CoV-2 infections is broader than expected. A review of neuropsychiatric symptoms in COVID-19 should provide an overview of the full plethora of SARS-CoV-2 associated neuropsychiatric abnormalities rather than a selected discussion of a single item.

Acknowledgments: None.

Conflict of interest: None to declare.

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