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Letter to the Editor

The spectrum of neuro- and psycho-COVID is broader than is commonly rumoured

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We read with interest the editorial article by Kulakowska *et al*. on the neurological complications of SARS-CoV-2 infections [1]. The study is excellent, but has limitations that are cause for concerns and should be discussed.

A limitation is that several neurological complications of SARS-CoV-2 infections in the early stage have not been mentioned or discussed. SARS-CoV-2 related CNS disease not discussed include meningitis, cerebellitis, carotid artery dissection, cerebral vasoconstriction syndrome, cerebral vasculitis, acute, hemorrhagic, necrotising encephalopathy, ventriculitis, pontine myelinolysis, Wernicke encephalopathy, myoclonus syndrome, acute, disseminated encephalomyelitis (ADEM), limbic encephalitis, hypophysitis, multiple sclerosis, neuromyelitis optica spectrum disorder (NMO-SD), pseudotumor cerebri, and transverse myelitis. Peripheral nervous system (PNS) diseases not included in the editorial include Guillain Barre syndrome (GBS), mononeuritis or polyneuritis of cranial nerves, myasthenia, myositis, dermatomyositis, and rhabdomyolysis. Although most of these conditions have been only rarely reported as a complication of SARS-CoV-2 infections, they should be considered and discussed as differential diagnoses. There is also no mention that some of these conditions can even be the initial manifestation of a SARS-CoV2 infection, in the absence of pulmonary manifestations.

Several psychiatric complications of SARS-CoV-2 infections have not been discussed either. These include delirium, isolated hallucinations, schizophrenia, akinetic mutism, mood disorders, eating disorders, autism spectrum disorders, eating disorders, anxiety disorders, and sleep disorders (psycho-COVID). Psychiatric disease is commonly not regarded as complication of a SARS-CoV-2 infection which is why it is important to point this out.

A limitation is that the term “encephalopathy” is not defined. Generally, encephalopathy means cerebral disease, but the term is often used for epilepsy, cognitive impairment, central nervous system (CNS) abnormalities in the absence of a structural cerebral lesion on imaging.

We disagree with the notion that coma is one of the most common neurological complications of SARS-CoV-2 infection, as stated in Table 1 [1]. Coma is not a neurological disorder but the lowest degree of impaired consciousness. In patients with a SARS-CoV-2 infection it may be due to stroke, bleeding venous sinus thrombosis, subarachnoid bleeding, post-seizure, non-convulsive epileptic state, encephalitis, or meningitis. Neurological diagnosis should not be intermingled with neurological signs.

Overall, the interesting study has limitations that call the results and their interpretation into question. Addressing these issues would strengthen the conclusions and could improve the status of the study. The spectrum of neuro- and psycho-COVID is broader than usually anticipated. Neurologist and psychiatrists should stay alert to even detect further previously unrecognised neurological or psychiatric complications of the still ongoing pandemic.

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References

1. Kułakowska A. SARS-CoV-2 and the nervous system. Neurol Neurochir Pol. 2023; 57(1):3-7. Doi: 10.5603/PJNNS.2023.0016