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EDITORIAL COMMENT
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Neuropsychiatric Consequences of COVID-19: What Do We Know So Far?

Dear Editor,

Studies indicate that COVID-19 causes long-term mental health sequelae in individuals who have recovered from the disease[1]. For this reason, a global movement towards recognition and planning of how to deal with mental health problems for all those impacted by the global pandemic is being carried out, whether patients or healthcare professionals. In addition, a better understanding of the role of the virus in the pathophysiology of mental health disorders and long-term mental health sequelae is needed[2].

According to the existing literature, the neuropsychiatric consequences of COVID-19 appear to be due to several factors, such as the direct effect of the infection, the body's responses against the infection, or the psychological sequelae of social isolation, unemployment, and fear for health and well-being. Subsistence[3]. Pandi-Perumal et al.[4] showed evidence that COVID-19 virus affects the central nervous system (CNS), and that people who recover from COVID-19 develop neurological symptoms such as headache, paresthesia, and changes in levels of consciousness, cerebral edema and neurodegeneration, as well as several acute and long-term neuropsychiatric symptoms. Another important point discussed by authors is that brain pathologies associated with COVID-19 can also impact long-term cognitive status after COVID-19 recovery.

According to the studies, the greater the severity of COVID-19, the greater the likelihood of CNS complications, such as symptoms similar to chronic fatigue, neurocognitive deficits, which persist even after recovery from COVID-19[2]. An increase in symptoms of depression, anxiety and trauma-related stress has also been observed due to the economic crisis and isolation from friends and family. But we cannot forget that the pandemic has had consequences not only for adults, but also for children who have started to study remotely and stay away from friends, as well as changing their routines lead to adaptation disorders, acute stress and other conditions[3].

Corroborating Pandi-Perumal et al.[4], Nakamura et al.[5] showed that more than 30% of hospitalized patients with COVID-19 had symptoms of cognitive impairment, depression and anxiety that lasted for months after recovery from COVID-19, more common and more severe in patients who required intensive care for severe effects of COVID-19. It was also discussed that in addition to the psychological stress related to the pandemic, several biological mechanisms were thought to be responsible for post-COVID-19 neuropsychiatric symptoms. Therefore, there is no consensus on whether the manifestations of psychiatric disorders result from social causes or whether CNS complications may be responsible, but literature indicates a particularly high prevalence of insomnia, fatigue, cognitive impairment, and anxiety disorders in the first 6 months post-COVID-19[6].

References

1. Adhanom Ghebreyesus T. Addressing mental health needs: an integral part of COVID-19 response. *World Psychiatry*. 2020;19(2):129-130. [CrossRef]
2. Kumar S, Veldhuis A, Malhotra T. Neuropsychiatric and cognitive sequelae of COVID-19. *Front Psychol*. 2021;12:577529. [CrossRef]
3. Schou TM, Joca S, Wegener G, Bay-Richter C. Psychiatric and neuropsychiatric sequelae of COVID-19–A systematic review. *Brain Behav Immun*. 2021;97:328-348. [CrossRef]
4. Pandi-Perumal SR, Zaki NFW, Qasim M, et al. Neuropsychiatric consequences of COVID-19 pandemic: a synthetic review from a global perspective. *Alpha Psychiatry*. 2022;23(4):144-154. [CrossRef]

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5. Nakamura ZM, Nash RP, Laughon SL, Rosenstein DL. Neuropsychiatric complications of COVID-19. *Curr Psychiatry Rep*. 2021;23(5):25. [CrossRef]

6. Badenoch JB, Rengasamy ER, Watson C, et al. Persistent neuropsychiatric symptoms after COVID-19: a systematic review and meta-analysis. *Brain Commun*. 2022;4(1):fcab297. [CrossRef]