



Could COVID-19 be a trigger for manic attack in an adolescent?

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To the editor,

COVID-19 causes various neurological and psychiatric symptoms that occur both during and after infection with the disease [1]. However, the effects of COVID-19 on the central nervous system (CNS) are not fully understood. This letter presents a report on an adolescent with cerebral palsy who had a manic attack after a COVID-19 infection.

In the case in question, a 16-year-old boy attended the clinic complaining of excessive speaking, euphoria, irritability, redoubled energy, and decreased sleep and appetite. He has cerebral palsy and had no previous psychiatric disorder nor was there any family history of psychiatric disorders. He had been diagnosed with COVID-19 with four family members and was treated at home with mild symptoms. On the 10th day after the end of the infection, the described manic symptoms started. Treatment with risperidone was initiated, and a month later, lithium was added. His manic symptoms disappeared. The patient's current risperidone dose is 3 mg/day and lithium dose is 1200 mg/day (peripheral blood level: 0.93 mEq/l). His manic symptoms never recurred over 4 months of follow-up.

COVID-19 causes mental problems and individuals with chronic diseases and disabilities are more vulnerable to psychiatric disorders associated with COVID-19 [2]. It is suggested that COVID-19 causes neuroinflammation and the release of pro-inflammatory cytokines in the CNS. In addition to the direct effects of the COVID-19 pandemic on CNS, the psychosocial stress it creates causes psychological stress in both children and their parents [3]. It is also known that psychosocial stress causes an increased inflammatory response by increasing the release of pro-inflammatory cytokines [4]. It has been found in various studies that pro-inflammatory cytokines such as IL-6 and TNF- α play a role in the pathogenesis of bipolar disorder [1]. Similar to our case, it was previously reported that an adult patient in a hospital inpatient unit who had manic symptoms such as excitation, irritability, and increased speech and energy on the 17th day of COVID-19 infection had not been diagnosed with bipolar disorder before [5]. COVID-19 may be a trigger for bipolar disorder by increasing the inflammatory response both with the psychosocial stress it creates and its direct effects on CNS. Therefore, depressive and manic symptoms should be considered in the treatment and follow-up of patients with COVID-19. In addition, neurological disabilities may be a predisposing factor for COVID-19 to trigger neurological and psychiatric disorders.

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Declarations

Conflict of interest The authors declare no conflict of interest.

Ethical approval None.

Informed consent Informed consent was obtained from the patient's parents.

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