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Letter to the Editor: Brief Case Report

COVID-19- Induced Aggression and Hypersexuality in an Adolescent Patient



Background

To the Editor: COVID-19 infection can cause a range of symptoms, from mild respiratory symptoms to severe myocarditis. In the adolescent population, the psychiatric effects of pandemic response have caused increases in depressive symptoms, anxiety, and loneliness.¹ There has been evidence of cases of acute-onset psychiatric symptoms directly related to COVID-19 infection, with the most relevant recent instances having been described as the new pediatric acute-onset neuropsychiatric syndrome.² Here we present a report of symptomatic COVID-19-related acute-onset episodic aggression and hypersexuality with transient memory loss in an adolescent patient with no personal or family history of psychiatric illness and discuss the existing literature on COVID-19-associated psychiatric presentations.

Case Presentation

A 16-year-old African-American boy currently attending high school with a medical history of allergies and exercise-induced asthma and no past psychiatric history was diagnosed with COVID-19 through a rapid antigen test and streptococcal tonsillitis with a rapid strep throat swab test. The

patient initially presented to the emergency department due to fatigue, headache, myalgias, and sore throat. The patient was discharged with a 10-day course of amoxicillin. For the next 10 days, the patient would attempt to interact with items that were not there and was markedly forgetful. Here, after presenting to the emergency room for a second time, the patient tested positive for COVID-19 again and was discharged.

After returning home, the patient did not recognize his family and was found attempting to force himself onto his aunt. Soon after, the patient grabbed his father's girlfriend inappropriately. At this point, 6 days after his second emergency room discharge, the mother brought the patient to the current facility, a pediatric acute care teaching hospital. The final episode of hypersexuality occurred 2 days into this hospitalization when the patient made crude sexual remarks and gestures to his nurse.

On initial interview by the psychiatric consult team on the second day of the hospitalization, the patient was unable to recount these episodes. However, by the fifth day, the patient accurately recalled the episodes and expressed both anger and sadness at his behavior. Both he and his mother said that he had never been aggressive toward his family or friends in the past. The patient denied using alcohol or drugs, and his urine toxicology screening was negative. The patient's neurological exam was normal on admission and did not change throughout his inpatient course. Additionally, the patient's laboratory findings, electroencephalogram, lumbar

puncture, and magnetic resonance imaging were all within normal limits. No medications were administered during his hospitalization.

Discussion

To our knowledge, this case documents the first instance of a pediatric patient presenting with aggressive and hypersexual behavior with transient memory loss in the setting of symptomatic COVID-19 infection. However, while there is a lack of significant literature outlining psychiatric presentations in pediatric patients during acute COVID-19 infection, reports of psychiatric symptoms in adult populations have been documented.

The patient was diagnosed with streptococcal pharyngitis on initial emergency room presentation, suggesting consideration of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections. The absence of motor symptoms, sleep disturbances, and obsessive-compulsive disorder like symptoms encouraged prioritization of alternative etiologies contributing to the presenting symptoms.

Recent reports of psychiatric symptoms related to COVID-19 infection in adults describe various presentations. A 26-year-old female patient with a lack of contributing psychiatric history was diagnosed with acute psychosis with persistent delusions.³ A similar situation was evident in a middle-aged male patient who reported sleeplessness, exhibited high anxiety levels, and was beholden to auditory and visual hallucinations.⁴ Finally, a case

series on 3 patients who all had concurrent anxiety, paranoia, disorganized thinking, and agitation in the setting of a COVID-19-positive test result was discussed.⁵ While the psychosis described in these reports is not the exact presentation reported in this case, the presence of psychiatric symptoms during a COVID-19 infection, even in an adult population, is of interest.

Episodic aggression, hypersexuality, and transient memory loss after COVID-19 infection in an adolescent is a new presentation with a lack of consensus regarding its management strategy. This case report highlights the need for clinicians to be vigilant of not only the various presentations of COVID-19 in the psychiatric sphere but also the variations that may be evident in a pediatric population. Further studies are needed to

investigate the etiology of the COVID-19-induced behavioral changes in pediatric patients.

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