Psychiatria Danubina, 2024; Vol. 36, No. 1, pp 137-138 https://doi.org/10.24869/psyd.2024.137 *Case report*

PSYCHOTIC SYMPTOMS POST COVID-19 INFECTION IN SOUTH AMERICA

Luana Araújo Macedo Scalia[1], Gabriela Scalia Gervásio[2], Eduarda Fileto Nogueira[1] & Rodrigo Scalia Fernandes[2]

1 College of Medicine, Federal University of Uberlândia, Uberlândia, Brazil.
2 Santa Casa de Misericórdia de Araguari, Araguari, Brazil

received: 5. 9. 2023; revised: 27. 9. 2023; accepted: 16. 10. 2023

* * * * *

Psychosis is a highly disruptive syndrome with symptoms such as delusions, hallucinations and disorganized thinking (Owen et al. 2016). Evidence shows that mental health can worsen after COVID-19 infection (Rogers et al. 2020, Lazzari et al. 2020), and some cases of psychosis have been documented (Watson et al. 2021, Lim et al. 2020, Baral et al. 2021). This exploratory study reported a case of psychosis after SARS-CoV-2 infection. This study was submitted and approved by the Ethics Committee Research with Human Beings.

A 25-year-old woman was referred to the psychiatric ward of a public hospital in Brazil due to psychotic symptoms and mental confusion. Two weeks prior to admission, the patient was diagnosed with COVID-19, one week after receiving the first dose of the Sinovac-CoronaVac vaccine. Cerebrospinal fluid collection, brain magnetic resonance imaging, computerized tomography scan and clinical exams showed no abnormalities. She was admitted with complaints of auditory hallucinations, extremely confused behavior, mind-reading phenomenon, psychomotor agitation, echolalia, repeated phrases without coherence, persecutory delusions, delusional interpretation of reality and intense mental distress. She had exanthema on lower and upper limbs and face, with no pruritus (secondary to infection). She was treated with risperidone 6 mg/day for 7 days and presented neuroleptic impregnation. The medication was replaced by olanzapine 10 mg/day. After 14 days she was discharged showing improvement of organized thinking, improved critical judgment, obeying her parents' instructions, without periods of violence and sleeping properly.

Her mother reported having had prenatal care and uneventful pregnancy. She grew up and developed as expected, did well in school, and has higher education. There was no major infection during childhood, no surgery, and no previous psychiatric illnesses. There was no family history of psychiatric illnesses. The patient worked as an assistant in the fertilizer industry and all the chemicals with which the patient had contact were analyzed, and no probable causes were found.

Sixty days after hospital release, the patient was on remission of psychotic symptoms, but maintained social phobia and repetitive checking behavior, which had a significant improvement with the adjustment of medication to fluvoxamine 50 mg/day and olanzapine 5mg/day. She presented impairment of memory and logical reasoning, ability to calculate, learning and did not remember about hospitalization. These effects may be related to the condition or even to medication use. She has returned to her usual social environment, wishes to resume work activities, and presented preserved criticism of the current mental condition.

A recent large-scale analysis of neurological sequelae in patients with COVID-19 infections found that neurological complications have been reported when compared with influenza and other respiratory tract infections six months after COVID-19 infection, now called Long Covid (Taquet et al. 2021). The pathophysiological mechanisms are unclear and studies question whether cases of post-infection psychosis are due to the inflammatory state of the disease or antibody-mediated encephalitis (Troyer et al. 2020, Spudich & Nath 2022, Han et al. 2023). Transient psychosis after COVID-19 infection is a new and emerging diagnosis with no consensus on management strategy. The case highlights the need for healthcare teams to be attentive not only to mental well-being, but also the subtle and evident psychotic symptoms.

Acknowledgements: None.

Conflict of Interest: The authors declare no conflicts of interest.

Authors contribution: All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Eduarda F. Nogueira, Luana Araújo Macedo Scalia, Rodrigo Scalia Fernandes e Gabriela Scalia Gervásio. The first draft of the manuscript was written by Luana Araújo Macedo Scalia and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Reference

Baral N, Adhikari G, Karki S, Champine A, Sud P: Does Social Stigma and Neglect Post-COVID-19 Matter? A Case Report on Brief Psychotic Disorder Post-COVID-19 and Self-Quarantine. Cureus 2021;13(1):1–4.

Han J, Pontikes TK, Zabinski J, Gilbert C, Hicks C, Fayez R, Walterfang M, Mahdanian A, Nanavati J, Lobner K, Leppla I, Roy D: First-Onset Psychosis after COVID-19 Infection: A Systematic Review of the Literature. J Acad Consult Liaison Psychiatry 2023 Jul 26:S2667-2960(23)00107-6

Lazzari C, Shoka A, Nusair A, Rabottini M: Psychiatry in time of COVID-19 pandemic. Psychiatr Danub 2020; 32(2):229-235

Lim ST, Janaway B, Costello H, Trip A, Price G: Persistent psychotic symptoms following COVID-19 infection. BJPsych Open 2020; 6(5):1–4

Owen MJ, Sawa A, Mortensen PB: Schizophrenia. Lancet 2016; 388:86–97

Rogers JP, Chesney E, Oliver D, Pollak TA, McGuire P, Fusar-Poli P, et al: Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. Lancet Psychiatry 2020; 7:611–27

Spudich S & Nath A: Nervous system consequences of COVID-19. Science 2022; 375:267–9

Taquet M, Geddes JR, Husain M, Luciano S, Harrison PJ: Six-Month neurological and psychiatric outcomes in 236,379 survivors of COVID-19. Lancet Psychiatry 2021; 8: 416-427

Troyer EA, Kohn JN, Hong S: Are we facing a crashing wave of neuropsychiatric sequelae of COVID-19? Neuropsychiatric symptoms and potential immunologic mechanisms. Brain Behav Immun 2020; 87:34-9

Watson CJ, Thomas RH, Solomon T, Michael BD, Nicholson TR, Pollak TA: COVID-19 and psychosis risk: Real or delusional concern? Neurosci Lett 2021, 741:1-9

Correspondence:
Luana Araújo Macedo Scalia,
College of Medicine, Federal University of Uberlândia,
Pará Avenue, 1720, 2U, Uberlândia, MG, Brazil.
luanascalia@ufu.br, +55 34 3225-8608