ECRONICON OPEN ACCESS

EC CLINICAL AND MEDICAL CASE REPORTS

Guest Editorial

Neuropsychiatric Phenotype of Post-COVID 19 Neurological Syndrome: Broadening the Concept

Lily Castellar-Visbal[1], Ivonne Andrea Barreto-Celis[2], Jhoan Tinjaca-García[3], Alfaro Ruano-Galindez[4] and Maria Paz Bolaño-Romero[5]*

[1]*School of Medicine, Universidad de Cartagena, Cartagena, Colombia*

[2]*School of Medicine, Universidad Pedagogica y Tecnologia de Colombia, Tunja, Colombia*

[3]*School of Medicine, Universidad Antonio Nariño, Bogotá, Colombia*

[4]*School of Medicine, Universidad Surcolombiana, Neiva, Colombia*

[5]*Medical and Surgical Research Center, Future Surgeons Chapter, Colombian Surgery Association, Cartagena, Colombia*

***Corresponding Author:** Maria Paz Bolaño-Romero, Medical and Surgical Research Center, Future Surgeons Chapter, Colombian Surgery Association, Cartagena, Colombia.

Received: February 21, 2022; **Published:** February 25, 2022

Keywords: *COVID-19; Post-Acute COVID-19 Syndrome; Post-COVID 19 Neurological Syndrome; Mental Disorders*

The evolution of the COVID-19 pandemic has wreaked havoc in all areas of human development [1,2]. Although it was thought that the first phase of the pandemic was going to be the most critical, the reality seems to be different, and it is that the sequels left by the organic affectation by the same disease of the COVID-19, have caused an elevation in the indicators of global disease burden [1]. Post-COVID-19 syndrome is a recently described entity of which much is still unknown. It is defined as the persistence or appearance of symptoms after the acute phase of COVID-19, establishing three cut-off scores, after 21 days (post-COVID acute), between one month and 3 months (post-COVID subacute) and persistence after 3 months (post-COVID chronic); and these symptoms must affect the functional capacity of the individual, which does not allow the adequate development of the activities of daily living [1,2].

Many phenotypes have been described in the literature, the most named being the post-COVID 19 neurological syndrome, due to the findings of SARS-Cov-2 neurotropism and the process of active or passive neuroinflammation that can be generated during the acute phase of this disease, even in the absence of neurological symptoms [3]. Considering that the nervous system is very susceptible to injury and slow and unsafe recovery, it is one of the most serious phenotypes of attention [3]. Older patients with comorbidities have a higher risk of developing the severe COVID-19 phenotype, and in these patients, neuroplasticity is reduced due to age and microvascular injury from vascular enlargement and atherosclerosis [3]. This leads us to think about the need to follow up on the neurological integrity of all patients who undergo a definitive diagnosis of COVID-19.

However, one variable to note that may be mistaken for a primary disorder is neuropsychiatric disorders. Evidence has found that patients with both mild and severe COVID-19 phenotypes have developed neuropsychiatric disorders in the absence of sociodemographic factors that may contribute to these disorders [4,5]. Ignatova., *et al*. [4] report a rather particular manifestation, a post-COVID 19 psychosis associated with Cotard's syndrome with a high risk of self-harm and suicide. The authors even suggest strict surveillance in patients with neuropsychiatric manifestations regardless of their cause, and establishment of an early therapeutic plan [4]. These manifestations may even go unnoticed in health care workers who become infected and remain asymptomatic through distress and anxiety [5]. This, coupled with events that are stressful in themselves, such as ethical dilemmas, barriers to care activities and lack of organizational support, constitutes a potential risk factor for the development of severe persistent neuropsychiatric disorder [5].

We propose that this type of manifestations constitute a variant of the phenotype of post-COVID 19 neurological syndrome, which could be called the neuropsychiatric phenotype of post-COVID 19 neurological syndrome, and which represents a real challenge for the

disciplines of neurology and psychiatry [6-8]. It is necessary to carry out studies aimed at investigating the behavior of this type of manifestations, associated factors, prognosis and long-term functional outcomes, since the post-COVID 19 neurological syndrome may worsen the prognosis of previous neurological disorders [6-8]. The design and support of specialized post-COVID 19 syndrome or neurorehabilitation centers is imperative to reduce the risk of loss of functional capacity of those affected [9,10]. This will probably be one of the most important lines of research in neurosciences in the coming years.

Funding Support

None.

Conflicts of Interest

None.

Bibliography

1. Camargo-Martínez W., *et al*. "Post-COVID 19 neurological syndrome: Implications for sequelae's treatment". *Journal of Clinical Neuroscience* 88 (2021): 219-225.

2. Rodríguez-Hernández YA., *et al*. "Post-COVID 19 neurological syndrome: The need to define a cut-off score between the acute and post-COVID 19 phases". *Annals of Medicine and Surgery* 71 (2021): 102983.

3. Groppa SA., *et al*. "Molecular Mechanisms of SARS-CoV-2/COVID-19 Pathogenicity on the Central Nervous System: Bridging Experimental Probes to Clinical Evidence and Therapeutic Interventions". *Advances in Experimental Medicine and Biology* (2021).

4. Ignatova D., *et al*. "Post-COVID-19 psychosis: Cotard's syndrome and potentially high risk of harm and self-harm in a first-onset acute and transient psychotic disorder after resolution of COVID-19 pneumonia". *Early Intervention in Psychiatry* (2021).

5. Plouffe RA., *et al*. "Impacts of morally distressing experiences on the mental health of Canadian health care workers during the COVID-19 pandemic". *European Journal of Psychotraumatology* 12.1 (2021): 1984667.

6. Lozada-Martínez ID., *et al*. "Post-COVID 19 neurological syndrome: A new risk factor that modifies the prognosis of patients with dementia". *Alzheimer's and Dementia* (2021).

7. González-Herazo MA., *et al*. "Post-COVID 19 Neurological Syndrome: a fresh challenge in neurological management". *Neurologia i Neurochirurgia Polska* 55.4 (2021): 413-414.

8. Cañón-Ruiz FH., *et al*. "Síndrome Post-COVID 19: Examen de Fenotipos". *Archivos de Medicina* 17.S3 (2021): 5.

9. Ortega-Sierra MG., *et al*. "Neuroeducation and neurorehabilitation in the neurosurgical patient: programs to be developed in Latin America and the Caribbean". *Journal of Neurosurgical Sciences* (2021).

10. Lozada-Martínez I., *et al*. "Letter: Need and Impact of the Development of Robotic Neurosurgery in Latin America". *Neurosurgery* 88.6 (2021): E580-E581.

Volume 5 Issue 3 March 2022