

Cognitive Difficulties, Somatic Complaints and Anxiety: Psychological Complications in COVID-19 Survivors

Received: October 21, 2021; **Accepted:** November 04, 2021; **Published:** November 11, 2021

About the Study

A new severe acute respiratory syndrome, named as SARS-CoV2 In December 2019, has been reported from Wuhan Region of China. Further studies on this new type of viral infection resulted to rename it as Coronavirus Disease 2019 (COVID-19) by World Health Organization (WHO). Further, WHO defined this new infection as a pandemic in March 2020, as the infection spread worldwide in a very short period of time. Various studies reported that main route of transmission is virus containing droplets and close contact with an infected person. Although COVID-19 is mostly known as viral infection effecting respiratory system, almost all body systems or organs can be affected by it. Most common symptoms are fever, non-productive cough, dyspnea, headaches, dizziness, fatigue, diarrhea and vomiting. Apart from the serious respiratory signs like respiratory distress or even respiratory failure, COVID-19 can cause various complications. Several studies report myocarditis, cardiac arrhythmias or acute coroner syndrome related to COVID-19. Further, neurological complications of COVID-19 such as vertigo, headache, altered consciousness, acute ischemic stroke or intracranial hemorrhages has been also reported.

Beside the above mentioned complications, some of the recent viral pandemics are also known for their negative neurocognitive consequences. Several studies reported neuropsychiatric complications associated with viral infections like Influenza A (H1N1), SARS or Middle East respiratory syndrome. For example survivors of SARS has been reported to suffer from both cognitive difficulties like concentration difficulties, memory impairments, insomnia and symptoms of anxiety and depression. Coronaviruses are widely known as neuro-invasive, neurotropic and neurovirulent type viruses. It is known that infection caused by these types of viruses may cause various psychiatric problems in acute or chronic phases. Additionally, it has been reported that existence of somatic symptoms like fever, cough, fatigue and gastrointestinal disturbances may exacerbate psychological complications.

In case of SARS-CoV-2 viruses, it has been postulated that viruses use ACE receptors a binding site to invade various cell types. More specifically ACE2 receptors are mostly involved in

Basar Ayribas*

Department of Psychology, Anadolu University, Eskisehir, Turkey

***Corresponding author:** Ayribas B,

Department of Psychology, Anadolu University, Eskisehir, Turkey,

✉ bayribas@hotmail.com

Citation: Ayribas B (2021) Cognitive Difficulties, Somatic Complaints and Anxiety: Psychological Complications in COVID-19 Survivors. Clin Psychiatry Vol.7 No. S6: 009.

this process. Studies show that apart from respiratory system, ACE2 receptors are widely distributed in central nervous system and SARS-CoV-2 type viruses can reach to the various nervous system cells like neurons, astrocytes and oligodendrocytes through these receptors. Another pathophysiologic mechanisms have been also proposed to understand SARS-CoV-2 viruses and their neuropsychiatric complications. One of these mechanisms is known as "cytokine storm" theory. According to this theory after binding to ACE-2 receptors, Coronaviruses trigger a cytokine storm characterized by significant increases in Interleukin-1, Interleukin-2 and tumor necrosis factor. These increased cytokine levels cause significant cell damage and consequently results with increased vascular permeability and widespread inflammation. These changes may also be evident in Blood Brain Barrier (BBB), as cytokine storm can damage BBB and therefore cause some neuropsychiatric complications like memory impairments and working memory difficulties.

Conclusion

Apart from the above mentioned biologic factors, numerous psychological factors were also proposed to understand psychiatric complications of COVID-19. Traumatic experiences like natural catastrophes or diseases may affect the feelings of security or act as a remainder of death. In case of COVID-19, factors like uncertainties regarding the course of the pandemic, lack of cure for the disease, overload of information, restricted social and physical activities may be significant factors which may serve as precipitating or causative factors for neuropsychiatric complications. This context, shows several studies reported on both COVID-19 survivors and general population has increased levels of anxiety, depression, fear responses and sleep

disturbances. Almost half of the COVID-19 survivors report emotional disturbances after acute phase of the infection and there is an increased risk to be referred for psychiatric treatment. In this regard, there are certain studies also showed that both severe and mild COVID-19 infections are associated with

neurocognitive deficits, also both acute and post-acute period of this disease are associated with various complications. The neurocognitive deficits and psychiatric symptoms are one of the most common symptom clusters associated with post-COVID syndrome.