

Post COVID-19 Symptoms?

Nesma Nabil Ahmed Elgohary ¹, Mohamed Nazmy Farris ², Daa Marzouk Abdel Hamid ^{1,3}, Mohamed Farouk Allam ^{1,3,*} , Salwa Mostafa Mohammad Abdel Rahman ^{1,4}

¹ Department of Family Medicine, Faculty of Medicine, Ain Shams University, Cairo, Egypt

² Department of Internal Medicine, Faculty of Medicine, Ain Shams University, Cairo, Egypt

³ Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, Cairo, Egypt

⁴ Department of Anesthesia, Intensive Care and Pain Management, Faculty of Medicine, Ain Shams University, Cairo, Egypt

*Correspondence: Mohamed Farouk Allam (farouk.allam@med.asu.edu.eg)

Abstract: The SARS-CoV-2 rapid spread caused an international public health emergency with unprecedented rates of morbidity and mortality. Post COVID-19 condition occurs as a spectrum of symptoms that present four or more weeks after acute infection with SARS-CoV-2. Most published data to date state 50-70% of hospitalized patients experienced at least one post-acute COVID-19 symptom up to 3 months after discharge. Commonly reported symptoms include; neurocognitive post COVID-19 (fatigue, dizziness, inattention, and brain fog), respiratory post-COVID (dyspnea, chest pain, and cough), and mental health related symptoms (insomnia, depression, and post-traumatic stress disorder). Additionally, gastro-intestinal post COVID-19 (diarrhea, vomiting, and abdominal pain) along with decline in quality of life and decreased ability to perform activities of daily living were reported. The response to post COVID-19 symptoms is still in its infancy despite being an emerging crisis as scientific evidence and robust data are nonetheless required for clear definition, identification of time frame, classification and management of the condition. New studies are needed to identify total and individual incidence/prevalence rates of different clinical presentations of post COVID-19 symptoms. These future studies will help us to improve early recognition of long term symptoms after acute infection of COVID-19.

Keywords: Post COVID-19, COVID-19, Fatigue, Brain Fog, Dyspnea, Insomnia, Depression, Quality of Life

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Mini Review

In 2019, a novel coronavirus was identified in Wuhan, China to cause a severe type of pneumonia namely severe acute respiratory distress syndrome coronavirus 2 (SARS-CoV-2) [1]. The SARS-CoV-2 rapid spread caused an international public health emergency with unprecedented rates of morbidity and mortality [2]. Further data emerged documenting extrapulmonary manifestations of COVID-19 including pro-thrombotic states, myocardial, gastro-intestinal, hepatic, endocrinologic, renal and dermatological manifestations [3]. This could be attributed to extrapulmonary dissemination and replication of the virus as described in other coronaviruses or as a result of immunological response to the infection [4].

Describing themselves as “long-haulers”, the number of recovering patients was increasing and there were evolving reports of varying persistent multi-organ symptoms after the acute phase of the disease [5]. Post COVID-19 condition occurs as a spectrum of symptoms that present four or more weeks after acute infection with SARS-CoV-2 [6].

Most published data to date state 50-70% of hospitalized patients experienced at least one post-acute COVID-19 symptom up to 3 months after discharge. Commonly reported symptoms include; neurocognitive post COVID-19 (fatigue, dizziness, inattention, and brain fog), respiratory post-COVID (dyspnea, chest pain, and cough), and mental health related symptoms (insomnia, depression, and post-traumatic stress disorder). Additionally, gastro-intestinal post COVID-19 (diarrhea, vomiting, and abdominal pain) along with decline in quality of life and decreased ability to perform activities of daily living (ADL) were reported [7-9]. Among non-hospitalized patients, similar symptoms presenting up to two to six months were documented with fatigue and dyspnea being most reported [10].

Although the specific cause of post COVID-19 symptoms remains to be identified, similar sequelae of delayed symptoms were documented among survivors of prior coronavirus epidemics, SARS in 2003 and MERS in 2012 [11, 12], which has been proposed as the spike subunit of these viruses engage with ACE2 (angiotensin-converting enzyme) as an entry receptor that is present in different body tissues [13]. Other mechanisms may include; host inflammatory and immune response to the acute infection [14]. Patient-related causes; age, gender, pre-existing comorbidities and illness-related causes; severity of illness, hospitalization and its duration are factors that seem to influence the spectrum of symptoms and duration to resolution of post-acute COVID-19 symptoms. Early data show a longer recovery period for older patients, patients who required hospitalization and those who suffered from medical complications such as secondary bacterial infection and thromboembolic events [15].

However, the response to post COVID-19 symptoms is still in its infancy despite being an emerging crisis as scientific evidence and robust data are nonetheless required for clear definition, identification of time frame, classification and management of the condition [16].

New studies are needed to identify total and individual incidence/prevalence rates of different clinical presentations of post COVID-19 symptoms. These future studies will help us to improve early recognition of long term symptoms after acute infection of COVID-19.

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