

Ex-Accrebed Neurological and Brain Disorders in Covid-19 Pandemic – A Global Concern

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Abstract

Corona virus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome corona virus type 2 (SARS CoV-2), has been shattering the entire globe since December 2019. Although different medicinal, interceptive, social, political interventions have been adopted, no down toward rate of this pandemic has been reported elsewhere. Among different health-care sectors, the neurological and brain disorders have been mostly affected due to the COVID-19 pandemic. Present article points towards the mostly affected neurological and brain disorders associated with COVID-19 and recommends plausible guidelines that would be of immense importance to the COVID-19 sufferers and their care-givers and health-care providers as well as to the policy makers spread all over the world.

Keywords: Alzheimer's disease, brain disorders, COVID-19, neuro-psychiatric complications, SARS CoV-2.

Introduction

Emerged at December, 2019, the corona virus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome corona virus type 2 (SARS CoV-2), has still remained the pandemic. The world health organization (WHO) has been formulating different strategies to combat COVID-19 since its inception but yet to reach the goal. In compliance with the WHO, different government and non-government organization also attempted but failed to hold back the COVID-19 consequences. COVID-19 has remained as the global threat in all aspects of sustenance: feeding, lodging, policy making, social security and economy as well as to the health care systems. Though multiple systems of the COVID-19 sufferers have been affected, the respiratory and nervous systems have undergone

the most notorious onslaught. The present article demonstrates the neurological and brain disorders mostly affected by the COVID-19.

Neurological and Brain Disorders affected by COVID-19

Alzheimer's disease

Alzheimer's disease (AD) is an age-onset neurodegenerative disorder and most of the patients show physiological complications at or after sixties. Though AD pathophysiology does not harbor COVID-19 patho-mechanism directly, there exists several indirect vulnerabilities of AD patients towards SARS-CoV-2 [1]. The angiotensin converting enzyme 2 (ACE2) receptor is the welcoming gate of SARS-CoV-2 entry to the respiratory and central nervous system (CNS) [1]. As both of these systems abound with ACE2 receptors, the CNS falls into extended vulnerability to SARS-CoV-2 load [1]. Most of the aged AD patients lack immunological shield against SARS-CoV-2 [2-3]. Besides, the AD patients undergo behavioral and personal alteration including declined memory and learning, cognitive impairment, irritability, mood disorder, bed-ridden and dependent on their family members and care-givers [2-3]. These factors add much insult to the already AD patient's injury. Due to COVID-19 overcoming regulatory strategies such as social distance maintenance, the care-givers can not provide full support to the AD patients; the AD patients can not remember the touching and washing recommendations; can not make sense of breathing problem and seek ventilation. AD patients already suffer from smell and odor problems that becomes heightened if simultaneously affected with COVID-19 [2-3]. At severe complications, AD patients become uncontrollable and tend to roam about but fail to trace their home and pose threat to themselves to become sufferer of COVID-19 or to others for spreading COVID-19 [2-3].

Other diseases

Besides AD, parkinson's disease (PD), multiple sclerosis, epilepsy, neuromuscular disorders, stroke, migraine, headache, Guillain-Barre syndrome are among the highly out broke ones during COVID-19 pandemic.

Conclusion

Pandemic COVID-19 is threat to the global community not only for its own complications, but also for its associated manifestations among whose neurological and brain disorders face the most vulnerable onslaught. Alzheimer's disease (AD) remains among the top-notch neurodegenerative disorders whose sufferers co-host the COVID-19 pathophysiology. Policymakers and health-care professionals and researchers should formulate strategies co-defending both of the global crises.

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