

## **Neurological aspects of covid-19 infection in children**

**Isha Deshmukh**

BJ Government Medical College, India

Coronavirus causes a wide variety of diseases in various animal species. It is known to cause innocuous respiratory infections and occasional viral diarrhea in humans. Pandemic caused by SARS-CoV-2 (a beta corona virus) is a third spill over in two decades of an animal corona virus to humans. It uses ACE2 receptors for cell entry. Active viral replication has been proved in the cells of human respiratory tract, conjunctiva and gastrointestinal tract contributing to multiple routes of transmission. Peak viral load is noted at the time of presentation which explains the transmission even in presymptomatic stage. RO is expected to be around two to three, which explains the higher pandemic potential. The virus persists on inanimate objects for a variable period of time depending on the infectious dose, temperature and humidity. The recent outbreak of corona virus infectious disease 2019 (covid-19) has gripped the world with apprehension and has evoked a scare of epic proportion regarding its potential to spread and infect humans worldwide. As we are in the midst of the on-going pandemic of covid-19, scientists are struggling to understand how it resembles and differs from the severe acute respiratory syndrome corona virus (SARSCoV) at the genomic and transcriptomic level. In a short time following

the outbreak, it has been shown that, similar to SARS-CoV, covid-19 virus exploits the angiotensin converting enzyme 2 (ACE2) receptor to gain entry inside the cells. This finding raises the curiosity of investigating the expression of ACE2 in neurological tissue and determining the possible contribution of neurological tissue damage to the morbidity and mortality caused by covid-19. Here, we investigate the density of the expression levels of ACE2 in the CNS, the host-virus interaction and relate it to the pathogenesis and complications seen in the recent cases resulting from the covid-19 outbreak. Also, we debate the need for a model for staging covid-19 based on neurological tissue involvement.

### **Biography**

Isha Deshmukh is an academician with 6 years of experience in the field of pediatrics. She is Assistant Professor in Department of Pediatrics at BJGMC & Sassoon General Hospital, Pune in Maharashtra State of India. She has participated in various national and international conferences as speaker/ delegate. She is keen in continuing medical education as an academician. She has contributed to the welfare of the society by continuing her noble profession as a doctor in pediatrics and neonatology.

**isha.deshmukh8@gmail.com**

**Received Date:** May 3, 2022; **Accepted date:** May 6, 2022; **Published date:** June 30, 2022