2. CHAPTER NEUROLOGY

EPILEPTIC SEIZURE TRIGGERED BY COVID-19

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BACKGROUND

SARS-CoV-2 causes similar disease as other known coronaviruses such as SARS-CoV and MERS. Although the respiratory system is the most affected system, it also affects other systems through viremia(1).

Headache, viral encephalitis, infectious toxic encephalopathy, changes in consciousness, seizure, Guillain Barré syndrome, and acute cerebrovascular disease have been shown as central and peripheral nervous system complications following COVID-19 infection. The presence of anomalies in the vascular or neural pathways, hypoxic brain damage, immunologic brain damage, and possibly the ACE-2 pathway are discussed (2,3,4,5).

It has been reported that neurological symptoms are present in 36.4% of the COVID-19 patients, and more importantly, the involvement of the nervous system may be associated with poor prognosis and worsening of the disease (2). While neurological problems can be encountered in the early period of the infection such as 24-48 hours on average, acute respiratory failure has been attributed to neuroinvasion in some people with mild pneumonia (6).

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2. In etiopathogenesis;anomalies in the vascular or neural pathways, hypoxic brain damage, immunologic brain damage, and possibly the ACE-2 pathway are discussed
3. Changes in consciousness are seen especially in patients with age and comorbid conditions. COVID-19 disease may cause encephalitis, toxic encephalopathy, clinical or subclinical acute symptomatic epileptic seizures and also status epilepticus.
4. COVID-19 can trigger epileptic seizures and cause status epilepticus in people with no seizure history or in epilepsy cases whose seizures are under control.
5. CSF and cranial imaging of patients presenting with impaired consciousness or epileptic seizures may vary.
6. Attention should be paid to the interactions of antiepileptic and antiviral drugs.

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