



Managing Epileptic Seizures through Telemedicine in the CoVID-19 Pandemic Crisis

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Dear Editor

The very fast outbreak and spread of the COVID-19 made everybody surprised (1). On the one hand, COVID-19 may cause fever in patients with epilepsy, and this fever may in turn trigger seizures. On the other hand, COVID-19 medications may impact epilepsy-drug interactions. Unfortunately, telemedicine was not used seriously and widely for the treatment and follow-up of patients before the Covid19 crisis. But now after this crisis, the use of telemedicine has become inevitable in most stages of treatment of chronic and acute diseases (2).

Kuroda (the USA, 2020) in his article, that entitled “What Should We Ask Patients with Remote Epilepsy During the Covid- 19 Crisis?”, said that semiotics is used to treat epileptic patients who have difficulty accessing medical facilities. Many factors, including the conditions of the patient’s immune systems, affect the control of their seizures. New diseases such as COVID-19 cause acute seizures that should be distinguished from the seizures in epileptic patients. However, some patients and their families are unable to accurately diagnose the different types of seizures that have occurred. The epileptologists are required to manage their outpatients using telemedicine due to

the limitations of COVID-19 pandemic. Therefore, the COVID-19 seizures can be remotely distinguished in periodic and clinic follow-up and visits. The research will also be needed to evaluate the effectiveness and safety of telemedicine in the COVID-19 crisis (3, 4).

Chen et al. (2020) in a study entitled “Controlling Epilepsy in an Epidemic Disease” in China stated that epilepsy during the COVID_19 pandemic posed challenges, including economic loss, that had been underestimated up to now. As the fourth most common neurological disorder in the world, epilepsy affects more than 65 million people worldwide and has a prevalence of 15.15% in China. The study showed that 53.8% of people with moderate to severe stress levels were suffering from the epidemic and 28.8% to 44.7% were anxious. To address these challenges, new technologies such as; telemedicine for self-management, patient education, anxiety and mental stress management, seizure diagnosis, periodic testing for anticonvulsant medications and side effects, and prescribing anticonvulsant medications are needed. Self-management helps patients diagnose and manage their conditions. Therefore, self-care applications through smartphones and other telemedicine approaches are good solutions for patients with epilepsy (5). However,

doing electroencephalogram and interpretation are not only time consuming (6), but also cause infection transmission. So, scalp Tele-Electroencephalogram (Tele- EEG) detection must be carefully weighed against the risk of coronavirus infection and wasting money and time, as a proper solution.

Conclusion

During the CoVID-19 epidemic, neurologists should implement telemedicine and electronic medical records to reduce the prevalence of infection, and improve self-management, patient education, anxiety and stress management, seizure assessment (through Tele- EEG), pre-seizure warnings, periodic testing for anticonvulsants and side effects caused by the use of the antiepileptic drugs(the side-effect of AEDs), and prescribe the antiepileptic drugs. Also, telemedicine and related programs help physicians keep patient information up-to-date, minimize their face-to-face visits, and cause economical savings.

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