

Covid Encephalopathy and New-Onset Seizures in the Context of a Prior Brain Abnormality: A Case Report

Authors : Omar Sorour, Michael Leahy, Thomas Irvine, Vladimir Koren

Abstract : Introduction: Covid encephalitis is a rare yet dangerous complication, particularly affecting the older and immunocompromised. Symptoms range from confusion to delirium, coma, and seizures. Although neurological manifestations have become more well-characterized in COVID patients, little is known about whether priorneurological abnormalities may predispose patients to COVID encephalopathy. Case Description: A 73 y.o. male with a CT and MRI-confirmed stable, prior 9 mm cavernoma in the right frontal lobe and no past history of seizures was hospitalized with generalized weakness, abdominal pain, nausea, and shortness of breath with subsequent COVID pneumonia. Three days after the initial presentation, the patient developed a spontaneous generalized tonic-clonic seizure consistent with presumed COVID encephalitis, along with somnolence and confusion. A day later, the patient had two other seizure episodes. Follow-up EEG suggested an inter-ictal epileptic focus with sharp waves corresponding to roughly the same location as the patient's pre-existing cavernoma. The patient's seizures stopped shortly thereafter, while his encephalopathy continued for days. Conclusion: We illustrate that a pre-existing anatomic cortical abnormality may act as a potential nidus for new-onset seizure activity in the context of suggested COVID encephalopathy. Future studies may further demonstrate that manifestations of COVIDencephalopathy in certain patients may be more predictable than initially assumed.

Keywords : cavernoma, covid, encephalopathy, seizures

Conference Title : ICAAAP 2022 : International Conference on Advanced Astrophysics and Astrophysical Plasmas

Conference Location : Toronto, Canada

Conference Dates : September 20-21, 2022