

Characteristics of COVID-19-related encephalopathy detailed

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(HealthDay)—Clinical, biological, electroencephalographic (EEG), and

magnetic resonance imaging (MRI) patterns could identify COVID-19-related encephalopathy (CORE) among patients hospitalized with COVID-19, according to a study published online March 15 in *JAMA Network Open*.

Virginie Lambrecq, M.D., Ph.D., from the Sorbonne Université in Paris, and colleagues examined clinical, biological, and brain MRI findings in association with EEG features for patients with COVID-19 in a retrospective cohort study. Of 644 patients hospitalized for COVID-19, 78 underwent EEG between March 30 and June 11, 2020.

The researchers found that delirium, seizure-like events, and delayed awakening in the [intensive care unit](#) after stopping treatment with sedatives were the main indications for EEG. Pathologic EEG findings were seen in 69 patients, including metabolic-toxic encephalopathy features, frontal abnormalities, periodic discharges, and epileptic activities. Forty-one of the 57 patients who underwent MRI showed abnormalities, including perfusion abnormalities, acute ischemic lesions, multiple microhemorrhages, and white matter-enhancing lesions. All tested patients had negative results of cerebrospinal fluid analysis for severe acute respiratory syndrome coronavirus 2. Nine patients with no identifiable cause of brain injury other than COVID-19 were isolated, and their [brain injury](#) was defined as CORE. Of these patients, six, seven, four, four, and three had [movement disorders](#), frontal syndrome, brainstem impairment, periodic EEG discharges, and MRI white matter-enhancing lesions, respectively.

"Our study suggests that EEG is a valuable procedure for [patients](#) with COVID-19 and neurologic symptoms, to better identify different brain dysfunctions and CORE," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

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