

# Abnormalities detected on brain MRI of COVID-19 patients in ICU

May 15 2020

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(HealthDay)—Among patients with COVID-19 pneumonia in the

intensive care unit (ICU) with neurological symptoms, 44 percent of those undergoing magnetic resonance imaging (MRI) have acute findings, according to a study published online May 8 in *Radiology*.

Sedat G. Kandemirli, M.D., from the University of Iowa Hospital and Clinics in Iowa City, and colleagues describe brain MRI findings in 235 patients with COVID-19 pneumonia in the ICU who were assessed between March 1 and April 18, 2020, from eight hospitals.

The researchers found that 50 of the patients (21 percent) developed [neurological symptoms](#). Brain MRI was performed in 54 percent of the 50 patients with neurologic symptoms. Of these, 44 percent (12 of 27 patients) had acute findings on MRI. Cortical FLAIR signal abnormality was present in 10 of 27 patients (37 percent). In three patients, accompanying subcortical and deep white matter signal abnormality were present on FLAIR images. Cerebrospinal fluid was obtained from five of 10 patients with cortical signal abnormalities; total protein was elevated in four patients. In all five specimens, reverse-transcription polymerase chain reaction assay findings were negative for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

"This report may help increase awareness for possible neurological involvement of SARS-CoV-2 for patients in the ICU and especially for patients who do not tolerate extubation despite improvement of respiratory findings," the authors write.

**More information:** [Abstract/Full Text](#)

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Citation: Abnormalities detected on brain MRI of COVID-19 patients in ICU (2020, May 15) retrieved 28 April 2024 from

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