Teaching NeuroImages: Cytotoxic lesions of the corpus callosum in encephalopathic patients with COVID-19

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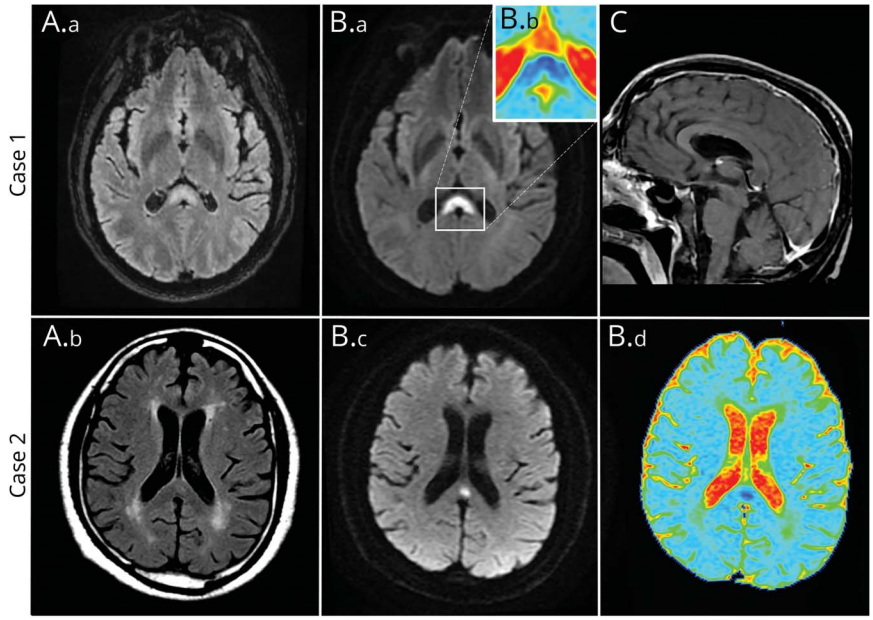
Figure Typical aspect of cytotoxic lesion of the corpus callosum (CLOCC) in patients positive for COVID-19



Ovoid lesion of the splenium of the corpus callosum, with increased T2/FLAIR signal (A.a, A.b), diffusion-weighted imaging hyperintensity (B.a, B.c) with abnormal restricted diffusion on multichromatic apparent diffusion coefficient maps (B.b, B.d) (ADC values <500 × 10^{-6} mm^2/s), and reduced T1 signal without enhancement (C).

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Two men, aged 49 and 51 years, with acute encephalopathy and rapid clinical deterioration were transferred to the intensive care unit. Both were recently tested positive for coronavirus disease 2019 on nasopharyngeal swab. On brain MRI, a lesion of the splenium of the corpus callosum was found, with T2-FLAIR hyperintensity and restricted diffusion (figure). This pattern is characteristic of cytotoxic lesion of the corpus callosum, an entity described previously as secondary to an underlying cause such as infection, drug toxicity, subarachnoid hemorrhage, history of CNS malignancy, or metabolic disorders.[1] These lesions are nonischemic lesions, usually transient and reversible on

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The Garches COVID-19 Collaborative Group coinvestigators are listed at links.lww.com/WNL/B238

follow-up. The underlying mechanism relies on the vulnerability of the splenium of the corpus callosum to cytokinopathy.

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Appendix 1 Authors

Name	Location	Contribution
Myriam Edjlali, MD, PhD	APHP, DMU Smart Imaging, GH Université Paris-Saclay, France	Designed and conceptualized the study; analyzed the data; and drafted the manuscript for intellectual content
Aurélie Le Gal, MD	APHP, GH Université Paris-Saclay, France	Major role in the acquisition of data
Martin Louvet, MD	Hôpital Privé de Parly II, Le Chesnay, France	Major role in the acquisition of data
Morgan Matt, MD	APHP, GH Université Paris-Saclay, France	Revised the manuscript for intellectual content
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Appendix 2 Coinvestigators

Coinvestigators are listed at links.lww.com/WNL/B238

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