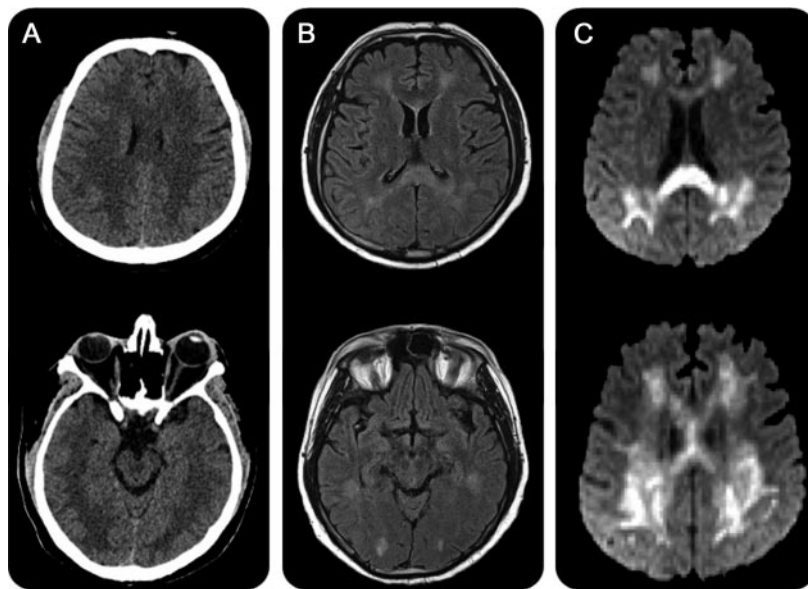


Teaching NeuroImages: Radiologic findings in Marchiafava-Bignami disease

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Figure CT/MRI features of Marchiafava-Bignami disease



(A) Axial CT showing symmetric hypodense white matter lesions. (B) Fluid-attenuated inversion recovery-weighted MRI depicting hyperintense white matter lesions predominantly involving the splenium of the corpus callosum. (C) Diffusion-weighted images revealed marked restriction with corresponding low apparent diffusion coefficient values. The mammillary bodies and the periaqueductal region appeared normal.

A 42-year-old man without known history of alcoholism presented comatose. CT and MRI (figure) demonstrated characteristic imaging features of Marchiafava-Bignami disease¹ without signs of Wernicke encephalopathy (such as involvement of the mammillary bodies). Under symptomatic treatment including artificial respiration and parenteral nutrition, the patient's Glasgow Coma Scale score improved from 3 to 7.

Marchiafava-Bignami is a rare disease associated with alcoholism though rarely also seen in patients without alcoholism,¹ characterized by demyelination and necrosis of the corpus callosum.² Since clinical symptoms can vary from cognitive impairment, gait disturbance, and hemiparesis to stupor, coma, and

death, early recognition of neuroimaging characteristics is crucial for diagnosis and treatment.

AUTHOR CONTRIBUTIONS

Dr. Tozakidou: drafting/revising the manuscript, analysis or interpretation of data. Dr. Stippich: drafting/revising the manuscript, study concept or design. Dr. Fischmann: drafting/revising the manuscript, study concept or design, analysis or interpretation of data.

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