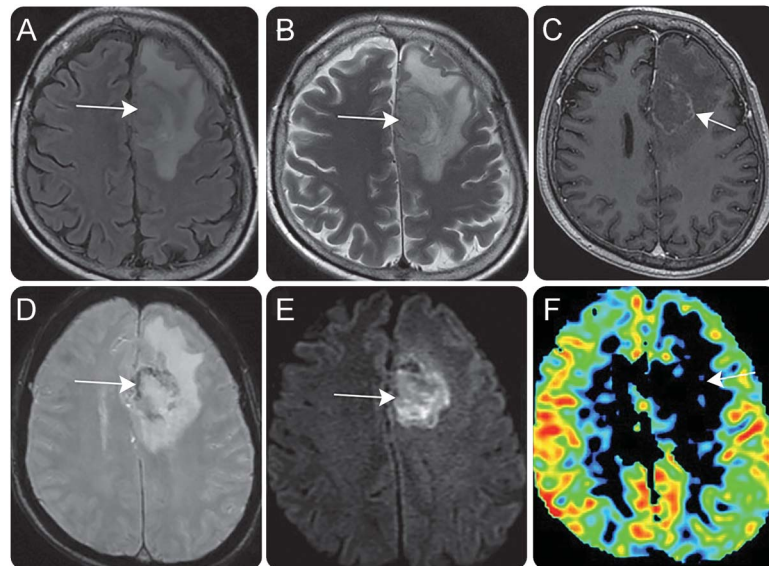


Teaching NeuroImages: Cytomegalovirus infection mimicking a brain tumor in a kidney transplant recipient

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Figure 1 Brain MRI



Axial fluid-attenuated inversion recovery (A) and axial T2 (B) brain MRI revealed a large brain mass (arrows) in the left frontal lobe. Axial post-contrast T1 (C) showed marked peripheral enhancement (arrow) by gadolinium. Axial susceptibility weighted imaging (D) depicted a hemorrhagic component (arrow). Axial diffusion (E) and corresponding apparent diffusion coefficient maps (not shown) demonstrated restriction diffusion (arrow) ($b = 1,000$ image). A brain tumor was suspected, but axial arterial spin labeling perfusion (F) revealed low perfusion (arrow).

A 62-year-old man presented with a 7-day history of progressive headache and right-sided weakness. The patient was a kidney transplant recipient, 16 years ago, because of diabetic nephropathy. Medications included prednisone and mycophenolate mofetil. Examination revealed right hemiparesis. Brain MRI showed a frontal space-occupying lesion on the left side (figure 1). Serology results were noncontributory. Biopsy was inconclusive. Surgery was performed, and pathology confirmed cytomegalovirus (CMV) infection (figure 2). The patient improved after receiving ganciclovir.

CMV infection of the nervous system in adults usually affects immunosuppressed patients. Common neurologic manifestation includes polyradiculoneuropathy, myelitis, and encephalitis. Neuroimaging features

include periventricular abnormalities.¹ In rare cases, CMV may present as pseudotumoral lesions.²

AUTHOR CONTRIBUTIONS

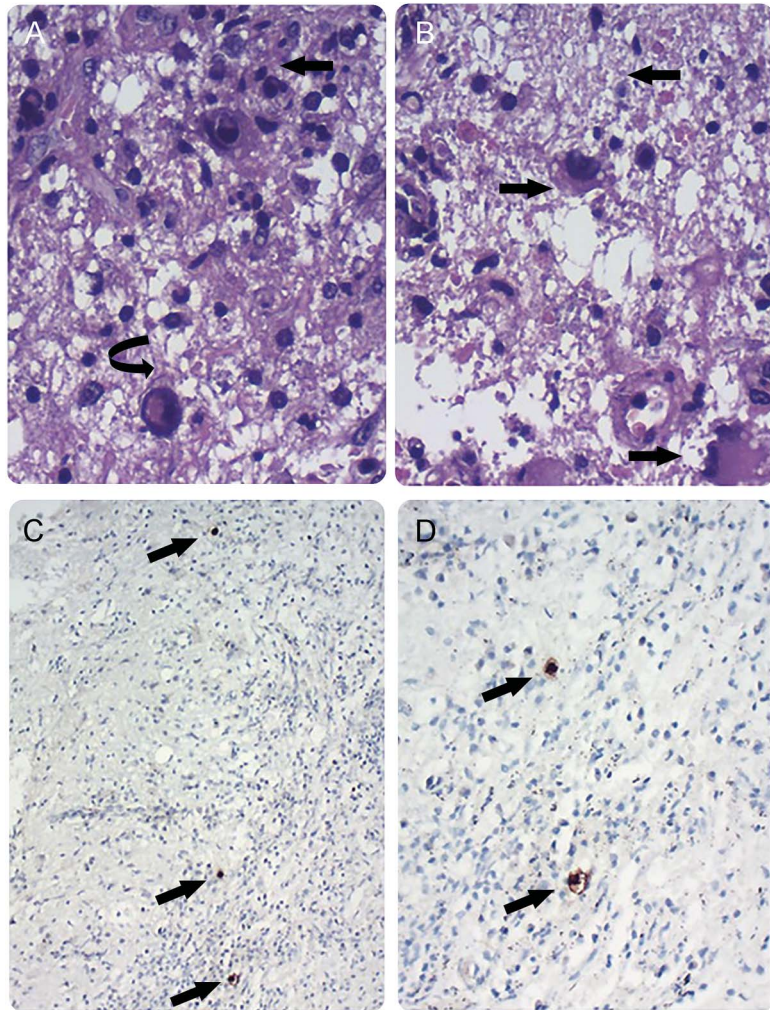
V.H.R. Marussi: conception, organization, and execution of the case report project, writing of the first draft and review and critique of the manuscript. J.L. Pedroso: conception, organization, and execution of the case report project, writing of the first draft and review and critique of the manuscript. L.F. Freitas: conception, organization, and execution of the case report project, review and critique of the manuscript. A. Baeta: conception, organization, and execution of the case report project, writing of the first draft and review and critique of the manuscript. C.L. Lancellotti: conception, organization, and execution of the case report project, writing of the first draft and review and critique of the manuscript. O.G. Barsottini: conception, organization, and execution of the case report project, writing of the first draft and review and critique of the manuscript. A.S.B. Oliveira: organization and execution of the case report project, review and critique of the manuscript. L.L.F. Amaral: organization and execution of the case report project, review and critique of the manuscript.

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Figure 2 Pathologic findings after excision of the brain mass



Cytopathic effects with intranuclear basophilic inclusion (curved arrow) and inflammatory infiltrate with necrosis (straight arrow): hematoxylin & eosin $\times 200$ (A and B). Immunohistochemistry (IHC) shows cytomegalovirus CCH2 + DDG9 clone (Dako, Carpinteria, CA): IHC $\times 40$ and IHC $\times 100$ (C and D, arrows).

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DISCLOSURE

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