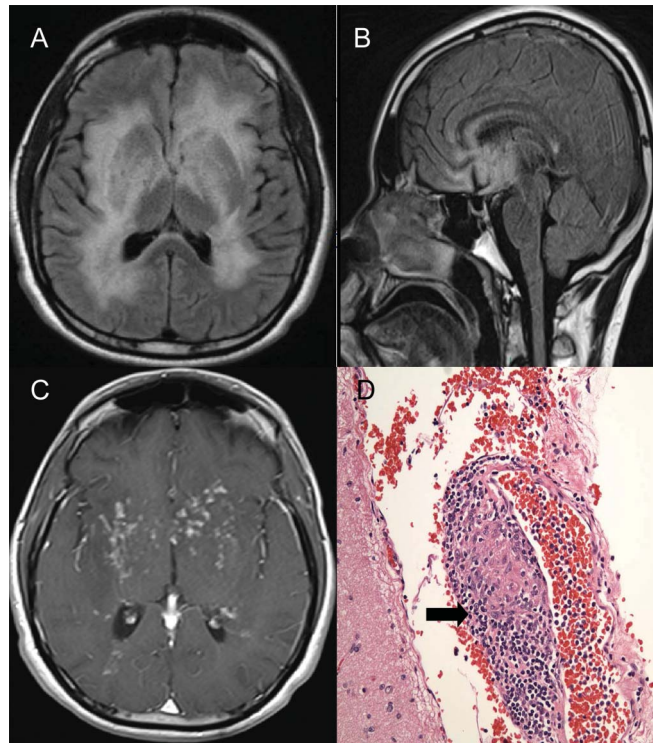


Teaching NeuroImages: Diffuse cerebral neurosarcoidosis mimicking gliomatosis cerebri

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Figure Imaging and histologic findings



(A) MRI axial fluid-attenuated inversion recovery (FLAIR) sequence demonstrating extensive periventricular white matter, and basal ganglia hyperintensities. (B) Sagittal FLAIR demonstrating corpus callosal hyperintensity. (C) Contrast-enhanced T1 showing multiple punctate enhancing lesions in subcortical white matter suggesting infection or malignancy. (D) Hematoxylin & eosin staining showing granulomatous inflammation (arrow), consistent with neurosarcoidosis.

A 30-year-old man with a history of bipolar disease presented with 6 months of cognitive decline, unsteady gait, urinary retention, and bilateral upper extremity tremors. Multiple punctate enhancing lesions were seen on brain MRI (figure). Differential diagnosis included infection (viral, tuberculosis, or cryptococcus), toxic leukoencephalopathy, gliomatosis cerebri, angiocentric lymphoma, and neurosarcoidosis. CT chest scan, CSF studies, HIV testing, hepatitis panel, drug screen, and vasculitis panel were negative. Brain biopsy revealed neurosarcoidosis. The patient responded well to high-dose steroids and IV cyclophosphamide. MRI in neurosarcoidosis often reveals enhancing periventricular white matter lesions, in this case mimicking diffuse gliomatosis cerebri.^{1,2}

AUTHOR CONTRIBUTIONS

Dr. Ramanathan, Dr. Malhotra, and Dr. Scott: design and interpretation of the study and preparation of the manuscript.

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DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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