

# Teaching NeuroImage: Cryptococcosis in the Central Nervous System Mimicking Neurocysticercosis

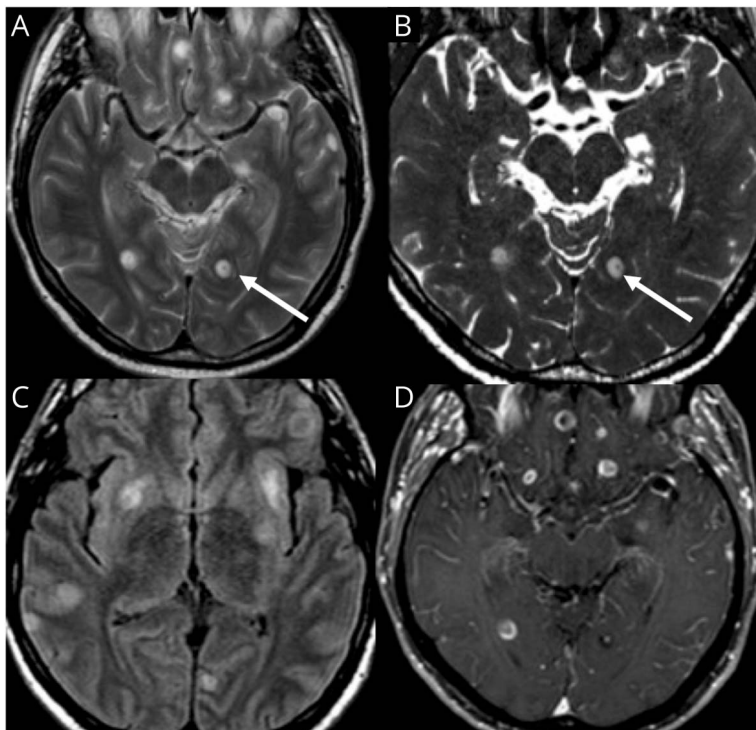
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**Figure 1** MRI of a Patient With Cryptococcosis Mimicking Neurocysticercosis—Supratentorial Findings



(A) Axial T2WI shows multiple cystic lesions, one in the left occipital lobe with dot sign (arrows in A and B). Axial fluid-attenuated inversion recovery shows vasogenic edema around most lesions (C). Axial T1WI postgadolinium shows peripheral and dot sign enhancement (D). Dot sign is a nodule within a cystic lesion.

A 51-year-old man presented with headache, paresthesias of the legs and arms, and seizure. MRI showed multiple cystic lesions with dot sign and gadolinium enhancement (Figures 1 and 2). The findings are reported to be pathognomonic of neurocysticercosis in the colloidal stage; however, brain tumors and cryptococcosis can mimic it. In this case, *Cryptococcus gattii* was isolated from the CSF. Despite treatment with amphotericin B and fluconazole, the patient died. There are important imaging differences between neurocysticercosis and cryptococcosis. In neurocysticercosis, usually there is no postcontrast enhancement of the dot sign. Cryptococcosis encephalitis is a difficult-to-treat disease that can affect immunosuppressed or immunocompetent patients.<sup>1,2</sup>

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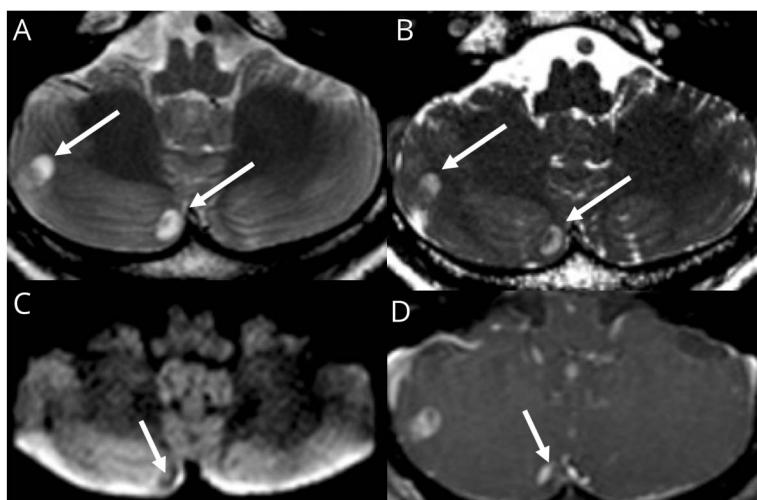
### Teaching slides

[links.lww.com/WNL/B787](https://links.lww.com/WNL/B787)

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**Figure 2** MRI of a Patient With Cryptococcosis Mimicking Neurocysticercosis—Infratentorial Findings



(A) Axial T2WI shows 2 cystic lesions in the right cerebellar hemisphere with dot sign (arrows in A and B). Axial DWI shows dot sign (arrow in C). Axial T1WI postgadolinium shows nodular and dot sign enhancement (arrow in D).

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## Disclosure

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## Appendix Authors

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<b>Marcos Rosa-Júnior, MD, PhD</b>	Department of Neuroradiology, Hospital Universitário Cassiano Antônio Moraes da Universidade Federal do Espírito Santo – HUCAM/UFES/EBSERH, Vitória ES, Brazil	Drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; and analysis or interpretation of data
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## Appendix (continued)

Name	Location	Contribution
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## References

1. Loyse A, Moodley A, Rich P, et al. Neurological, visual, and MRI brain scan findings in 87 South African patients with HIV-associated cryptococcal meningoencephalitis. *J Infect*. 2015; 70(6):668-675.
2. Chen S, Chen X, Zhang Z, Quan L, Kuang S, Luo X. MRI findings of cerebral cryptococcosis in immunocompetent patients. *J Med Imaging Radiat Oncol*. 2011; 55(1):52-57.

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