

Images in Infectious Diseases

Gelatinous pseudocysts in cryptococcal meningoencephalitis

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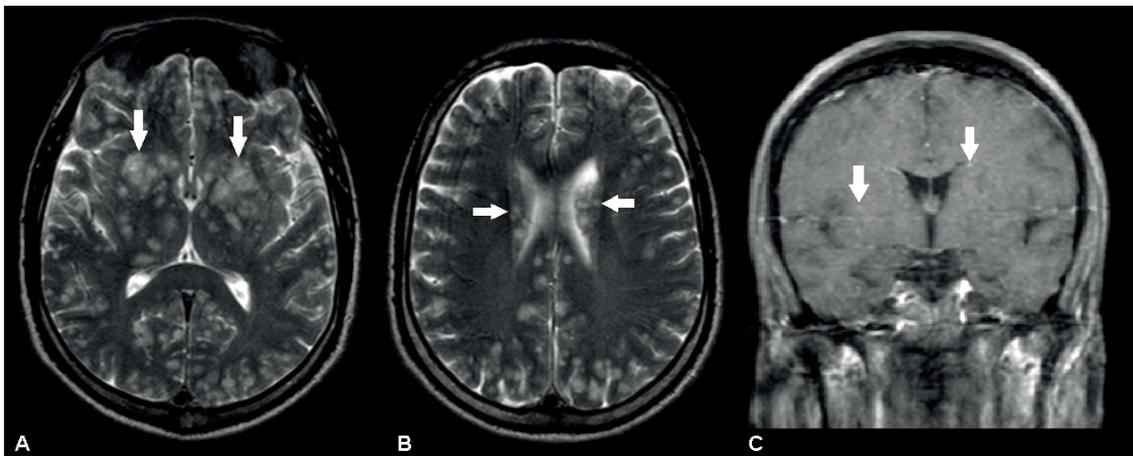


FIGURE 1: Multiple intra-axial lesions scattered throughout the cerebral hemispheres, sometimes confluent, characterized by a hyperintense T2 signal (**A and B**) without significant enhancement with gadolinium (**C**). Such lesions have no significant mass effect and perilesional edema, suggesting perivascular impairment due to gelatinous pseudocysts. Absence of meningeal enhancement (**C**), a common finding in cryptococcal meningoencephalitis in immunocompromised patients.

A 26-year-old man was admitted with fever and headache that persisted for 2 weeks, progressing with reduced consciousness and seizures. Serological tests for HIV showed positive results and the CD4 count was 76 cells/mm³. The serological test for syphilis showed negative results. Cerebrospinal fluid analysis revealed pleocytosis (42/mm³) with lymphocytic predominance, increased protein concentration (125 mg/mL), a negative VDRL test result, and a positive cryptococcal capsular polysaccharide antigen test result with fungal culture positive for *Cryptococcus neoformans*. Brain magnetic resonance imaging showed multiple intra-axial lesions scattered throughout the cerebral hemispheres (**Figure A and Figure B**) without significant enhancement with gadolinium (**Figure C**), suggesting perivascular impairment due to

gelatinous pseudocysts. Treatment with intravenous amphotericin B deoxycholate 0.7 mg/kg/d and flucytosine 100 mg/kg/d was initiated, but the patient died 1 week later.

Cryptococcosis is a disease caused by *Cryptococcus neoformans*, an encapsulated yeast that usually affects immunocompromised patients. It is the third most common intracranial pathogen in acquired immunodeficiency syndrome (AIDS) patients, only surpassed by HIV itself and *Toxoplasma gondii*¹⁻³. In AIDS patients, cryptococcal infection generally manifests as meningoencephalitis or a disseminated disease. Meningeal infection may involve the brain parenchyma or may extend along the Virchow-Robin spaces, causing dilation of perivascular spaces due to mucous gelatinous material produced by the fungal capsule. In these cases, neuroimaging studies show multiple, small, round/oval lesions in the basal ganglia and thalami nucleus without significant enhancement with gadolinium¹⁻³.

Cryptococcosis should be considered in the differential diagnosis in immunocompromised patients with dilated Virchow-Robin spaces.

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AUTHORS' CONTRIBUTION

BNFR: Elaboration of the manuscript; **EM:** Manuscript revision.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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