

Images in Infectious Diseases

Gelatinous pseudocysts in cryptococcal meningoencephalitis

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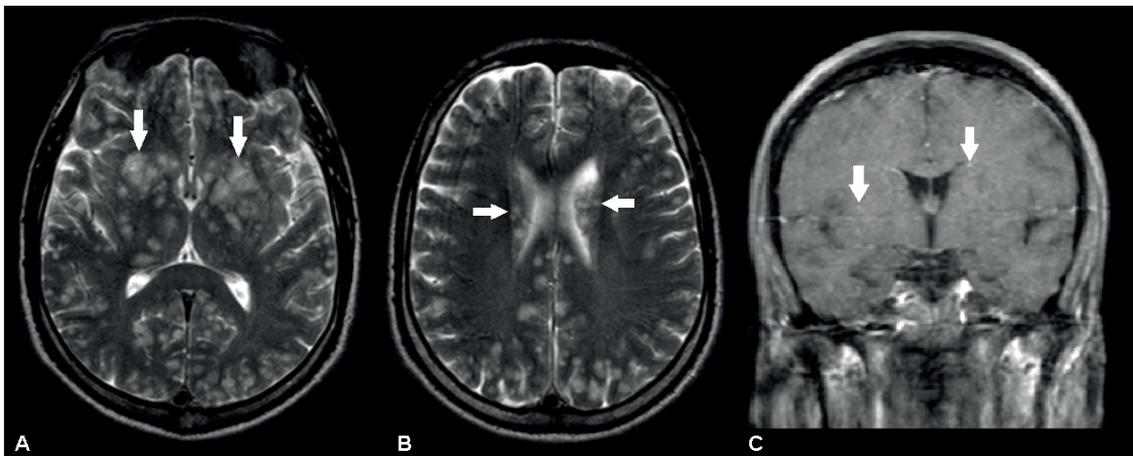


FIGURE 1: Multiple intra-axial lesions scattered throughout the cerebral hemispheres, sometimes confluent, characterized by a hyperintense T2 signal (**A and B**) without significant enhancement with gadolinium (**C**). Such lesions have no significant mass effect and perilesional edema, suggesting perivascular 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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Received 22 April 2020

Accepted 15 May 2020

ACKNOWLEDGMENTS

We offer our deepest gratitude to the institutions that provided technical support for the development and implementation of this study.

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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