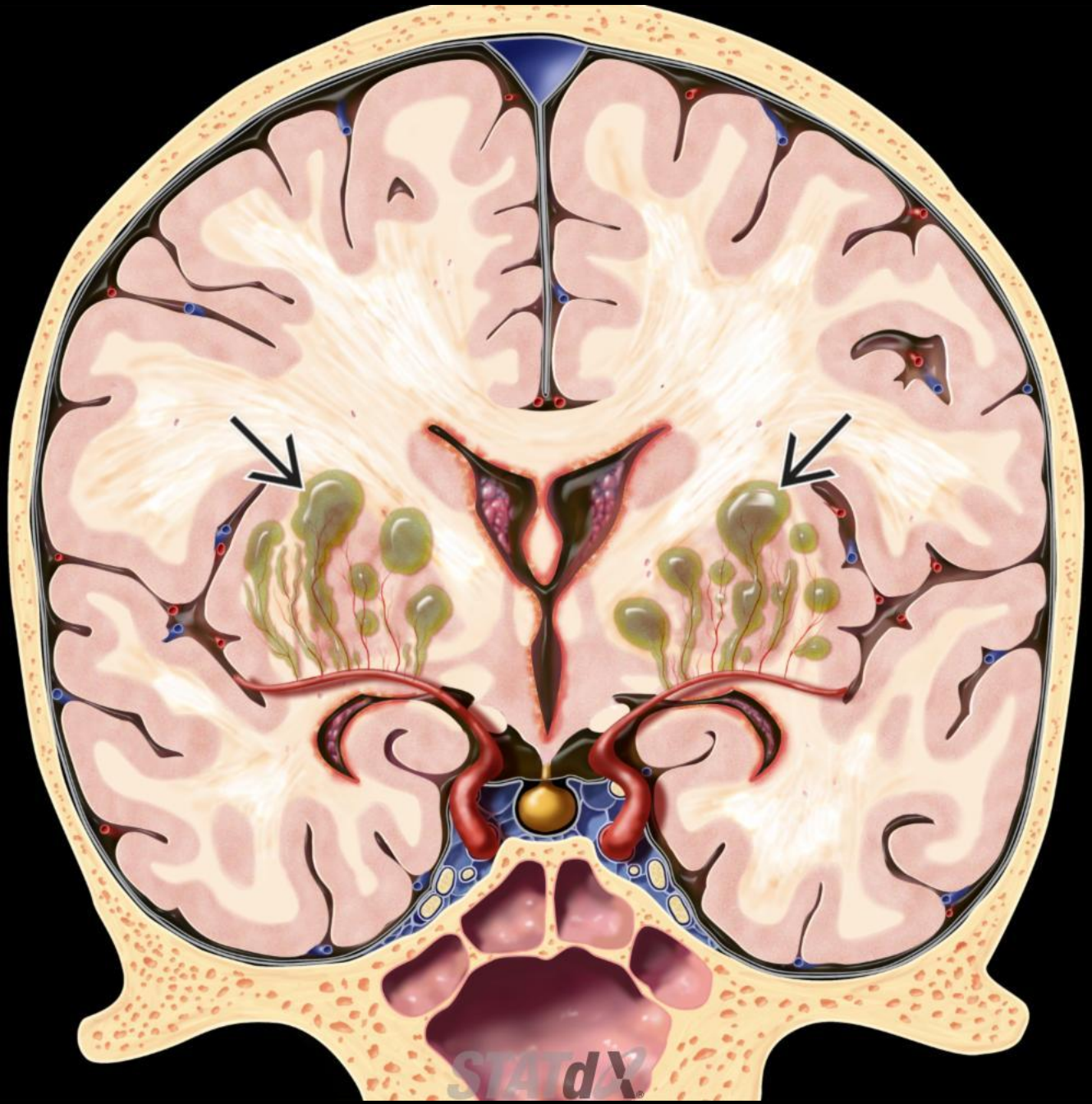
Cryptococcosis

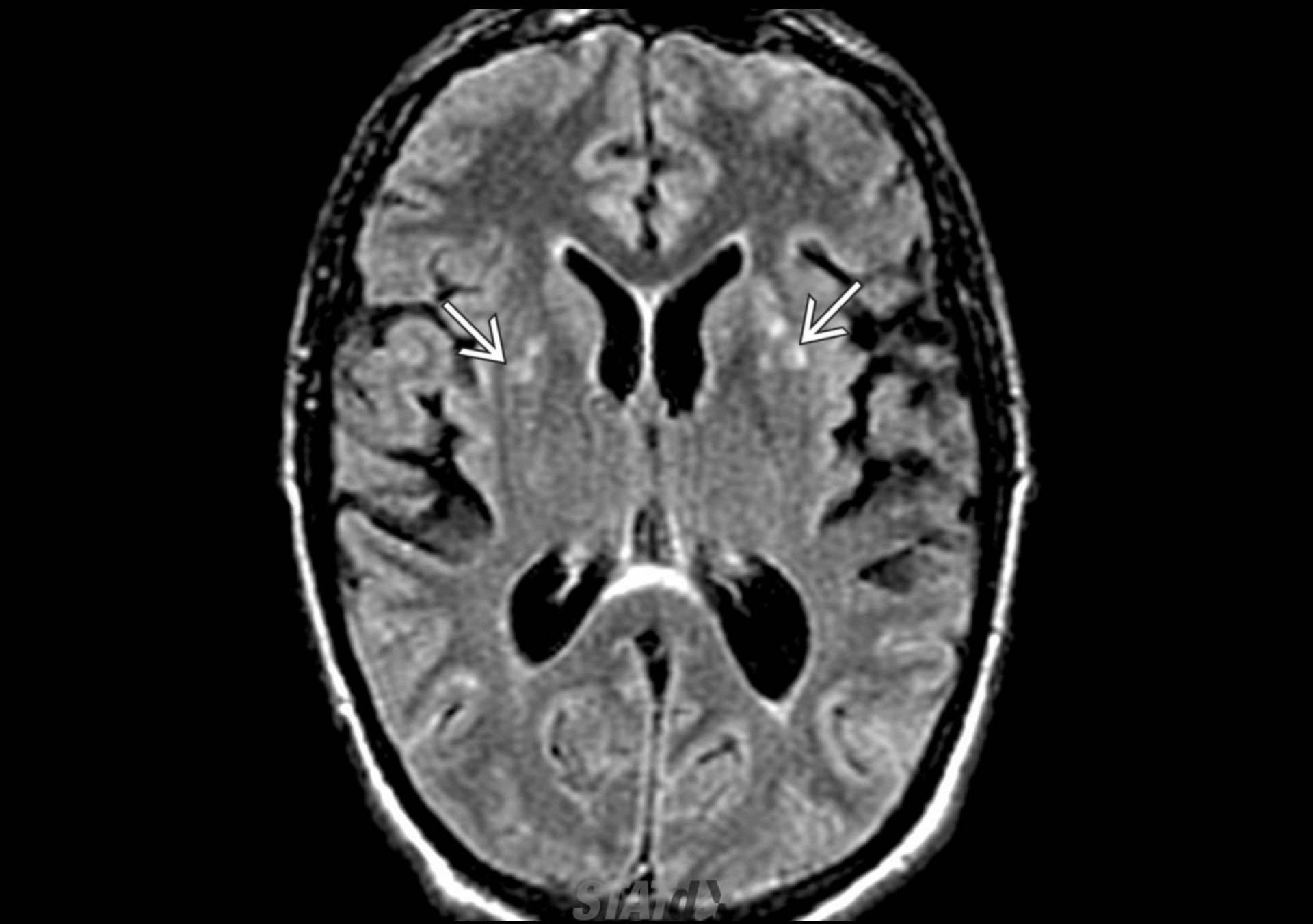
- *Cryptococcus neoformans* infection
- Opportunistic fungal infection that typically affects HIV and other immunosuppressed patients
- Cryptococci spread along PVS to deep brain: Basal ganglia (BG), thalamus, brainstem, cerebellum, dentate nucleus, periventricular white matter (WM)

Clinical Issues

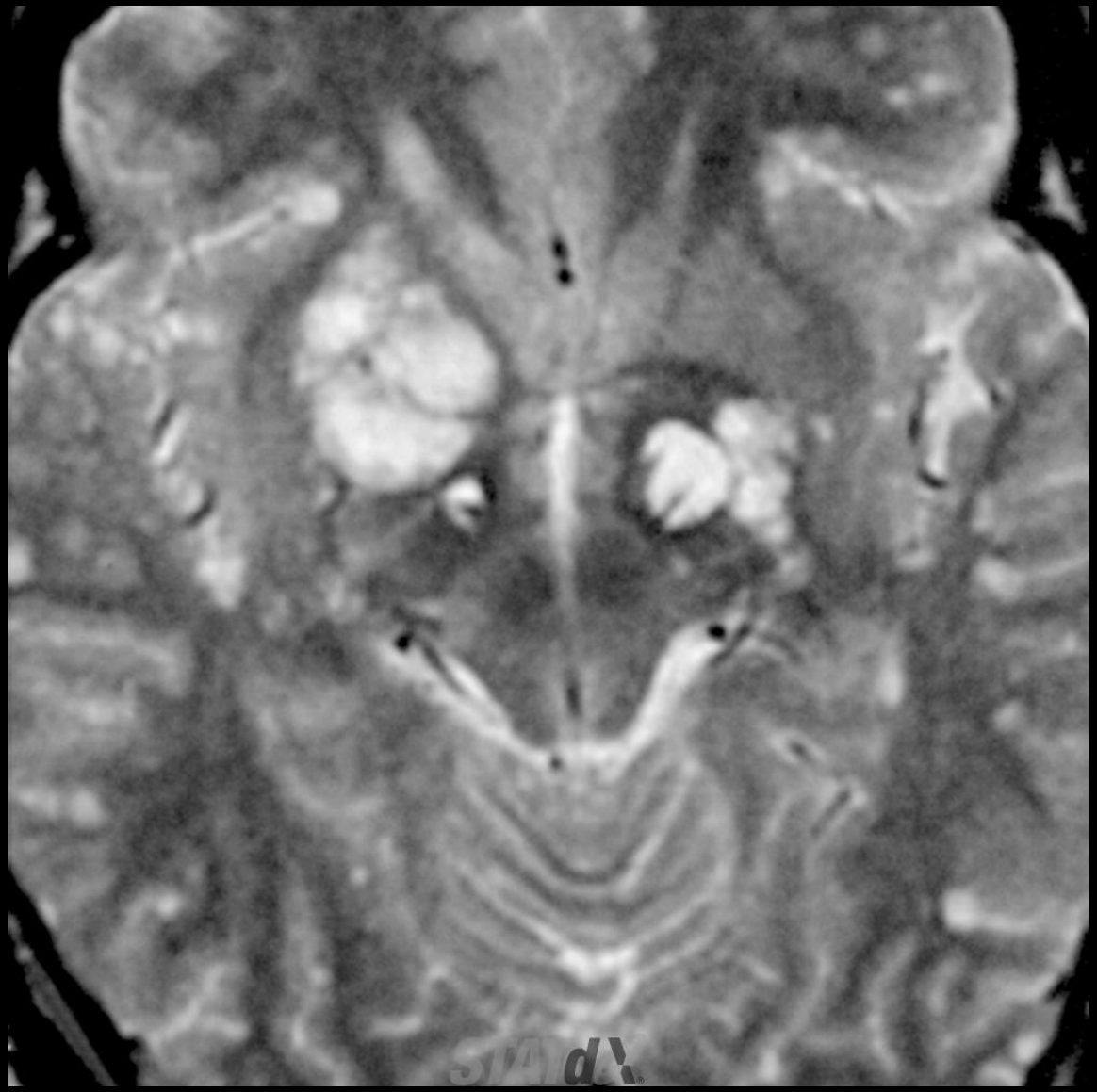
- CNS infection related to hematogenous dissemination from lungs
- Headache most common symptom
- Most common fungal infection in AIDS patients
- 3rd most common infection seen in AIDS patients (HIV > toxoplasmosis > crypto)
- Indian ink test: Highly specific
- Cryptococcus meningitis > > > cryptococcoma
- **Consider**
  - In AIDS patients with dilated PVS



Coronal graphic shows multiple dilated perivascular (Virchow-Robin) spaces (black solid arrow), filled with fungi and mucoid material, resulting in gelatinous pseudocysts which are characteristic of cryptococcal infection in AIDS.



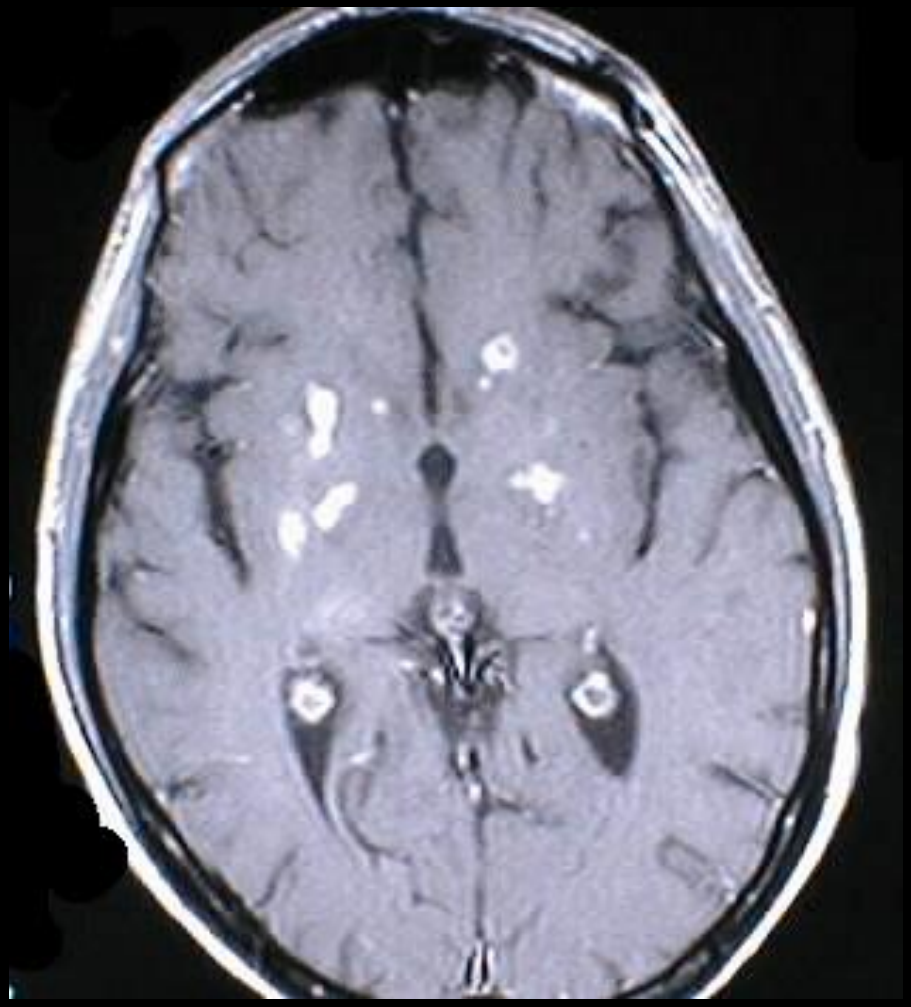
Axial FLAIR MR shows bilateral dilated perivascular spaces (white solid arrow) with hyperintense rims in this AIDS patient with Cryptococcus meningitis. Hydrocephalus is a common complication of this infection.



Axial T2WI MR shows multifocal high signal lesions in the basal ganglia, midbrain, and subcortical white matter, characteristic of the gelatinous "pseudocysts" caused by cryptococcosis in HIV positive patients. These represent dilated perivascular (Virchow-Robin) spaces filled with fungi, mucoid material, and inflammatory cells. Cryptococcomas typically show no enhancement.

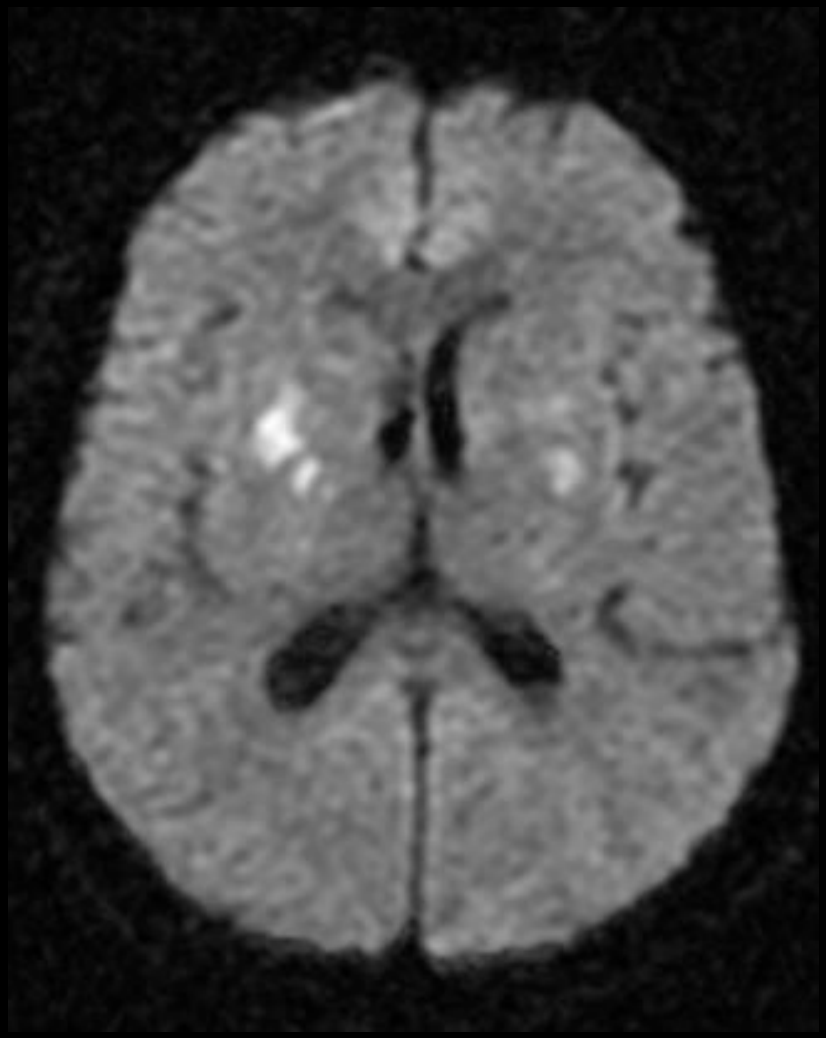
Axial T1 C+ MR in the same patient shows a focal enhancing mass (white open arrow) involving the parietal lobe, related to a cryptococcoma. This patient has a known pulmonary Cryptococcus infection.

Cryptococcal

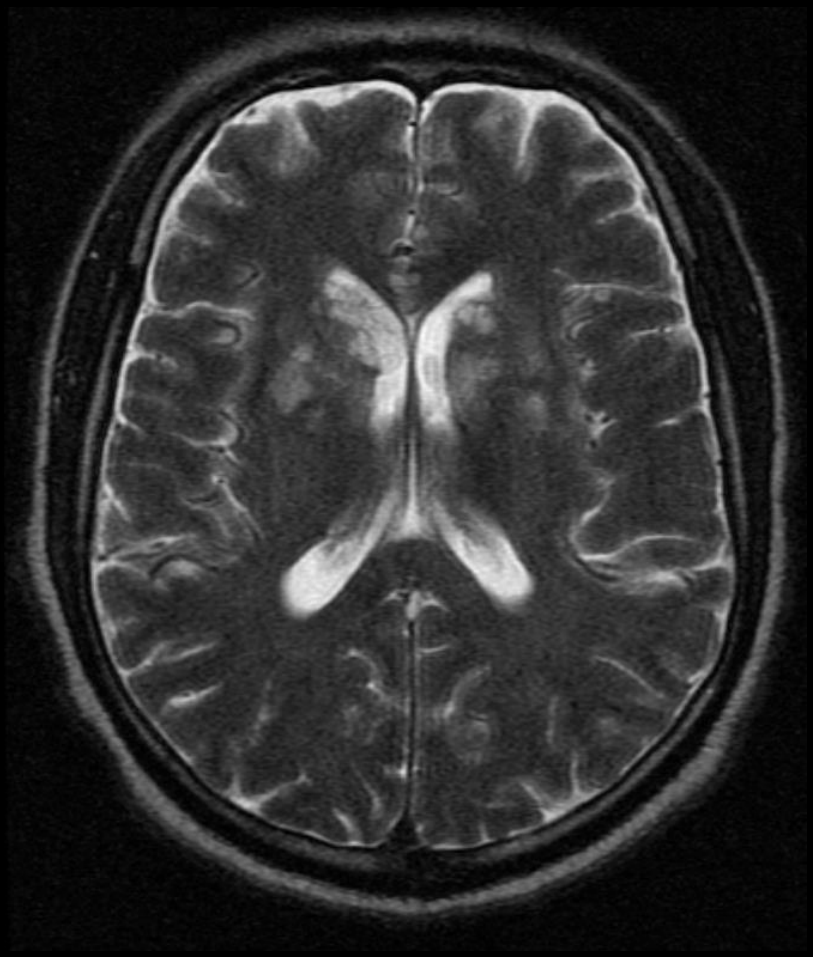


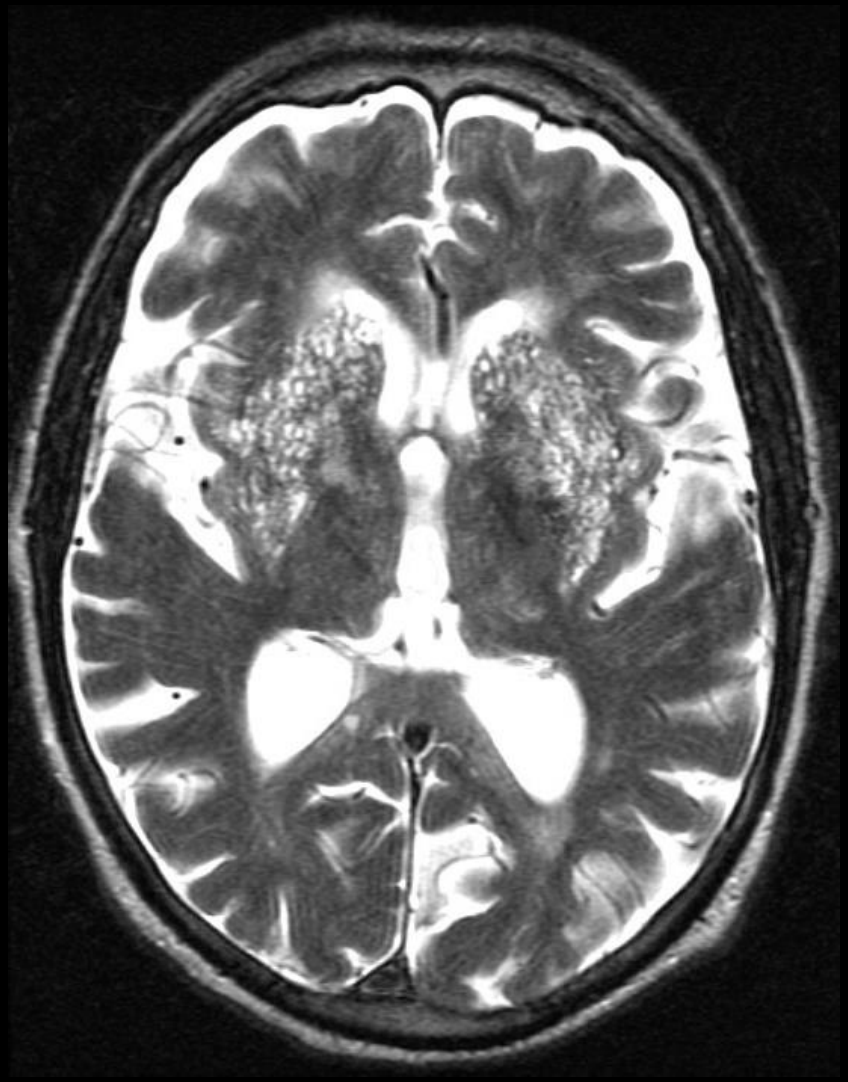
Cryptococcal

Restricted Diffusion

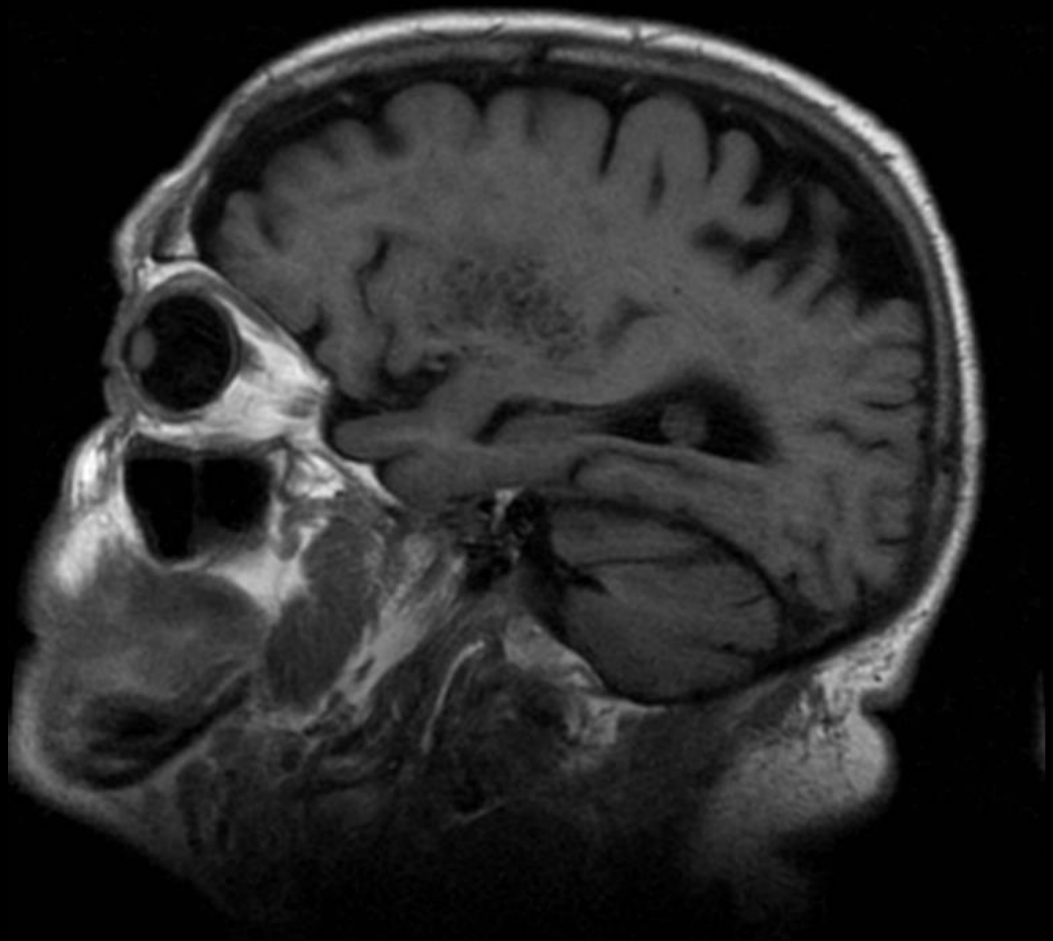


Cryptococcal





Cryptococcal (dilated vercow robin Spaces)



Suspect when see findings which look like Lacunar infarcts in a HIV + patient