

## Neurological case: Cognitive decline and depressed level of consciousness in AIDS

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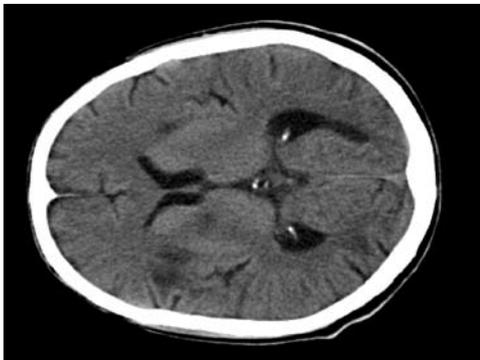
### Presentation

A 39-year-old man was referred from a rural hospital. On examination, he had a new onset left hemiplegia, left gaze palsy and decreased level of consciousness. Prior to the acute deterioration, he had shown progressive decline in his cognitive functioning. He was known to be HIV-positive with a CD4 count of 19. He was not on anti-retroviral therapy (ART) at the time of admission. Two years earlier, he had been diagnosed with pulmonary tuberculosis and had completed his prescribed treatment.

What is the most likely diagnosis according to the imaging? Select the diagnosis from one of the following options, and provide a justification.

- HIV encephalitis (HIVE)
- toxoplasma encephalitis
- progressive multifocal leucoencephalopathy (PML)
- primary central nervous system lymphoma (PCNSL).

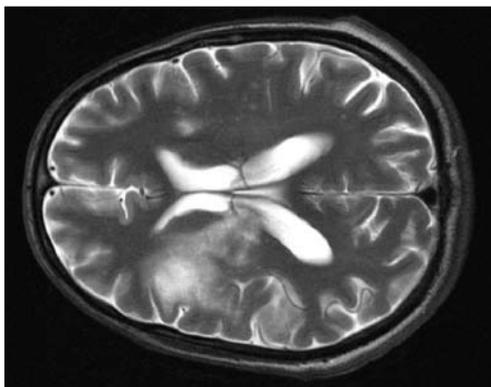
Please submit your response to [els.hein@gmail.com](mailto:els.hein@gmail.com) or [docsav@mweb.co.za](mailto:docsav@mweb.co.za) by 29 April 2011. The winning respondent will receive a R1 000 prize from the RSSA. A detailed diagnosis and discussion will appear in the next issue of the *SAJR*.



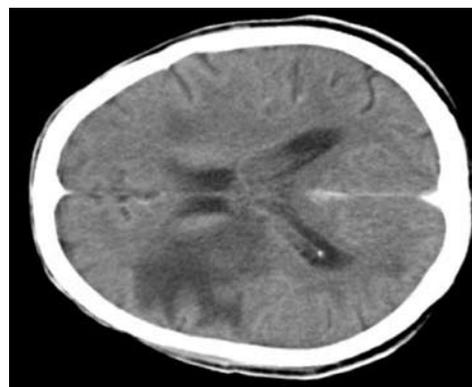
*Fig. 1a. Unenhanced CT image reveals a focal white matter hypodensity involving the right frontoparietal area and right basal ganglia. A smaller left-sided lesion was noted in the anterior capsula externa.*



*Fig. 1b. No enhancement was demonstrated on post-contrast imaging.*



*Fig. 2. T2WI shows hyperintense signal in white matter right parietal lobe with involvement of the subcortical U-fibres and mild mass effect. The right basal ganglia and left anterior capsula externa lesions are again demonstrated.*



*Fig. 3. Follow-up CT 2 months later demonstrates significant progression of the disease.*