

**Canadian Association of Neuropathologists  
L'Association Canadienne des Neuropathologistes**

**CASE No 2**

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This 32-year-old married male, born in India but living in Canada since the age of 10 was admitted to hospital for investigations of recent changes in his mental status - mood swings, agitation and irritability. There was also slurring of his speech, unsteadiness of his gait and mild blurring of his vision. There was no fever, no nausea or vomiting, no skin rash, no joint pain, no history of recent travel. Past medical history was non contributory. On examination he was alert, his speech was slurred and limited motor and sensory examinations were normal. Reflexes were symmetrical and plantar responses were downgoing. Neuroimaging of the brain, which included CT scans and MRI showed multiple subcortical white matter lesions. Differential diagnoses were numerous and included infections and malignancies. A demyelinating disease, namely ADEM was eventually thought to be the most likely process. His course in hospital was one of rapid deterioration in spite of maximal therapy, which included high dose steroids and intravenous gamma globulins. He died roughly two months after admission.

**Materials Submitted:**

1. A representative LFB/H&E glass slide from postmortem brain – occipital lobe.
2. Representative digital MRI images of brain.
3. Digital images of brain biopsy, about 1 week prior to death.

**Question:**      **Diagnosis**