

Focal nonconvulsive status epilepticus manifested as an antegrade amnesia

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Background: Usual clinical feature of nonconvulsive status epilepticus (NCSE) includes confusion or aura continua. Limbic encephalitis predominantly involves hippocampal structures which have crucial role in memory registration. Memory impairment is common sequelae of limbic encephalitis. We report a woman who had persistent memory impairment as sole manifestation of NCSE. **Case:** A previously healthy 38-year-old woman presented with repeating generalized seizures and gradual impairment of consciousness into stuporous state. EEG demonstrated electrographic seizures in both temporal areas. Brain MRI showed signal increment in bilateral mesial temporal lobes. CSF was positive with anti-NMDA receptor antibody. She was diagnosed as a status epilepticus with anti-NMDA receptor antibody encephalitis. Antiepileptic treatment including midazolam continuous infusion and immunomodulating therapy were undertaken. Midazolam continuous infusion was continued until when both electrographic seizures and periodic discharges disappeared. She recovered from the coma 18 days after the presentation. Her neurologic deficits were completely recovered except one. She suffered from persistent antegrade amnesia. Neurocognitive testing indicated significant impairment in the memory domain while other domains were relatively preserved. A follow up EEG and MRI were unremarkable. FDG-PET revealed focal hypermetabolism in the body of the right hippocampus. Antiepileptic drug treatment with higher intensity alleviated her antegrade amnesia. We concluded that the antegrade amnesia was a manifestation of persistent focal seizure activity. **Conclusions:** Uncontrolled focal seizure activity can present as a memory impairment and can be mistaken for some sequelae of the limbic encephalitis. PET or SPECT could be helpful in discriminating these two conditions.