

Topiramate

Aphasia: case report

A 39-year-old man developed aphasia during treatment with topiramate for epilepsy.

The man, who had a history of epilepsy and personality disorder and was receiving oxcarbazepine, started receiving a slow titration (25 mg/week) of topiramate up to 300 mg/day. After the titration period was finished [*duration of treatment not clearly stated*], he reported disordered written and oral language production, characterised by word-finding difficulties. Mental status examination revealed a reduced fluency in speech production and anomias in confrontation naming. Neuropsychological examination showed impaired picture naming, lexical retrieval and auditory sentence comprehension. Nonverbal reasoning test results were in the lower normal range and he was also impaired in tests of delayed recall of verbal and nonverbal material. After sleep deprivation, diffuse paroxysmal abnormalities were observed, with one epileptiform discharge in the left temporal area. EEG monitoring showed left anterior paroxysmal abnormalities during non-REM sleep. Brain MRI revealed minimal hyperintense anomalies in the left frontal white matter. A single photon emission CT (SPECT) scan revealed hypoperfusion in the mesial frontal cortex and in the left middle frontal gyrus in the interictal phase.

Topiramate was discontinued and the man started receiving levetiracetam. At follow-up 5 months later, he reported persistent word-finding difficulties, but clinical examination revealed normal fluency and neurological examination was normal. Neuropsychological examination revealed residual impaired delayed recall tests for nonverbal and verbal material. Repeat SPECT scan was normal. At follow-up about 11 months later, he reported persisting memory and concentration difficulties. No language disorders were observed upon clinical examination. However, neuropsychological examination revealed impaired controlled association and delayed recall.

Cappa SF, et al. Reversible nonfluent aphasia and left frontal hypoperfusion during topiramate treatment. *Epilepsy and Behavior* 10: 192-194, No. 1, Feb 2007 - Italy

801070878