

## **COGNITIVE IMPROVEMENTS USING ANTIEPILEPTIC DRUGS**

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**Objectives:** To show that antiepileptic drugs may improve cognition in patients with dementia and lower seizure threshold.

**Background:** On our previous study (A.A.N. 2011) we found that people with dementia showed more EEG alterations than normal controls. Studies using magnetoencephalography have showed temporal lobe epilepsy in patients with dementia. Temporal lobe epilepsy is associated with memory impairments and many studies have found a correlation between the presence of beta amyloid and epilepsy.

**Method:** Twenty patients were enrolled, ages ranging from 67 to 89 years, all of them with cognitive impairments and lower seizure threshold as evidenced by EEG. Three of them had previously developed seizures. All of them underwent full clinical exams, lab tests, MRI's, cognitive tests. Initial Mini Mental scores averaged 21-23. Twelve patients were receiving treatment with Memantine-Donepezil, five with Donepezil and three with Memantine.

**Results:** All patients received lacosamide 50mg daily from day 1 to 10, and 150mg daily, from days 31 to 60, with no side effects.

An average 70% of the patients increased 4 points in the Mini Mental Score, 10% increased 7 points, and the remaining 20% more than 4 points.

About 80% of them also showed improvements in mood and behavioural areas.

**Conclusions:** The correlation we found between dementia and lower seizure threshold on one hand, and the significant improvements in cognitive, mood and behavioural areas after a 60 day treatment with Lacosamide on the other, allows us to consider an antiepileptic drug as a useful alternative for patients with organic cognitive impairments.