

## AAN 73<sup>rd</sup> ANNUAL MEETING ABSTRACT

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**Abstract Title:** Frequency and Predictors of Obstructive Sleep Apnea in a Cognitively Impaired Clinic Population

**Press Release Title:** Study: Treatable Sleep Disorder Common in People With Thinking and Memory Problems

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**Objective:** (1) To assess the frequency and predictors of obstructive sleep apnea (OSA) in patients with cognitive impairment due to a neurodegenerative and/or vascular etiology in a tertiary care clinic population. (2) To assess the correlation of OSA with cognitive impairment and actigraphy-derived sleep quality.

**Background:** OSA is a common sleep disorder which results in repeated pauses in breathing during sleep and is associated with an increased risk of developing cognitive impairment. OSA is prevalent in the general population and its prevalence increases in patients who have dementia. However, the frequency and predictors of OSA have not been well-established in Alzheimer's disease and other related conditions such as vascular dementia.

**Design/Methods:** Patients with cognitive impairment primarily attributable to an underlying neurodegenerative and/or vascular etiology were enrolled. Patients completed various assessments and questionnaires related to sleep, cognition and mood. A home sleep apnea test (HSAT) was used to assess patients for OSA.

**Results:** Sixty-seven patients had complete HSAT recordings (i.e.  $\geq 4$  hours of analyzable HSAT data). Patients had a mean age ( $\pm$ SD) of 72.8 ( $\pm$ 10.1) years, 44.8% were male and the mean ( $\pm$ SD) body mass index was 25.6 ( $\pm$ 5.5). OSA was detected in 52.2% of the study population. Logistic regression demonstrated that OSA was significantly associated with a lower Montreal Cognitive Assessment score (OR: 0.40,  $p=0.048$ ). Severity of OSA was correlated with degree of cognitive impairment and actigraphy-derived sleep variables (lower total sleep time, greater sleep onset latency, lower sleep efficiency and greater awakenings)

**Conclusions:** Our study demonstrated that OSA is common in patients with cognitive impairment and is correlated with lower cognition and poorer sleep quality. Future research should examine OSA prevalence in larger cohorts and assess predictors in specific neurodegenerative and/or vascular etiologies for cognitive impairment.

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