



AAN 76th ANNUAL MEETING ABSTRACT

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Abstract Title: Prevalence of and Annual Conversion Rates to Mild Cognitive Impairment and Dementia: Prospective, Longitudinal Study of an Essential Tremor Cohort

Press Release Title: People with Essential Tremor May Have Increased Risk of Dementia

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Objective: This prospective, longitudinal study comprehensively reports the prevalence and incidence of, and the annual rates of conversion to, mild cognitive impairment (MCI) and dementia in an essential tremor (ET) cohort.

Background: Despite recent attention to cognitive impairment in ET, few studies examine rates of conversion to diagnoses of MCI and dementia. Development of dementia in ET is associated with loss of functional ability and a doubling of mortality rate. Furthermore, although a few studies have estimated one or two of the following six metrics in an ET cohort - cumulative prevalence of MCI and dementia, cumulative incidence of MCI and dementia, and annual conversion rate from normal cognition to MCI or dementia - none has comprehensively assessed all of these metrics within a single prospectively followed cohort.

Design/Methods: ET cases underwent detailed cognitive assessments and were assigned diagnoses of normal cognition (NC), MCI, or dementia. There were 222 cases at baseline (mean age = 79.3 ± 9.7 years), and 177 cases participated in follow-up evaluations at 18, 36, 54, and 72 months (mean years of observation = 5.1 ± 1.7). Data were compared to those of historical controls and Parkinson's disease (PD) patients.

Results: The cumulative prevalence of dementia and average annual conversion rate of MCI to dementia were 18.5% and 12.2%, nearly three times higher than rates in the general population, and approximately one-half the magnitude of those reported for PD patients. The cumulative prevalence of MCI (26.6%) was almost double that of the general population, but less than that in PD populations.

Conclusions: We present the most complete exposition of the longitudinal trajectory of cognitive impairment in an ET cohort. Our data indicate that the prevalence of and conversion rates to dementia in ET fall between those associated with the natural course of aging and the more pronounced rates observed in individuals with PD.

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