

IS ELDERLY-ONSET ESSENTIAL TREMOR ASSOCIATED WITH MILD COGNITIVE IMPAIRMENT?: A POPULATION-BASED STUDY (NEDICES)

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Introduction: Mild cognitive impairment (MCI) is often considered to be a transitional stage between normal aging and dementia. Frontal-executive dysfunction, memory impairments and dementia have been associated with essential tremor (ET). Yet the association between MCI and ET has only been examined in one prior study. We determined whether ET is associated with MCI.

Methods: We identified all persons with MCI and ET in a dementia-free, population-based study in central Spain (NEDICES). MCI was diagnosed using consensus criteria of the International Working Group on MCI.

Results: Forty-two (20.3%) of 207 ET cases had MCI vs. 399 (16.1%) of 2,472 non-ET subjects (controls) (odds ratio [OR] = 1.32, 95% Confidence Interval [CI] = 0.93 to 1.89, $p = 0.12$). In a model that adjusted for age, gender, educational level, smoking, hearing impairment, depressive symptoms or antidepressant use and use of a medication that could potentially affect cognitive function the OR was 1.28, 95% CI = 0.88 to 1.84, $p = 0.19$. In an adjusted model, ET cases with tremor onset after age 65 were 57% more likely to have MCI than controls (OR = 1.57, 95% CI = 1.03 to 2.38, $p = 0.03$), whereas ET cases with tremor onset prior to age 65 and controls were equally likely to have MCI (OR = 0.73, 95% CI = 0.34 to 1.57, $p = 0.43$).

Conclusions: In this study, older-onset ET was associated with MCI. This finding supports the hypothesis that cognitive disturbances are one of the core non-motor symptoms of ET.