Mild cognitive impairment at Parkinson's disease diagnosis linked with higher risk for early dementia

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Mild cognitive impairment at the time of Parkinson disease (PD) diagnosis appears to be associated with an increased risk for early dementia in a Norwegian study, according to a report published Online First by *JAMA Neurology*.

Patients with PD have an increased risk for dementia (PDD) compared with healthy individuals and researchers sought to examine the course of mild cognitive impairment (MCI) and its progression to dementia in a group of patients with PD. The Norwegian ParkWest study is an ongoing population-based study of the incidence, neurobiology and prognosis of PD in western and southern Norway, according to the study background.

The study by Kenn Freddy Pedersen, M.D., Ph.D., of Stavanger University Hospital, Norway, included 182 patients with PD monitored for three years. More patients with MCI than without MCI at baseline (10 of 37 [27 percent] vs. 1 of 145 [0.7 percent]) progressed to dementia during follow-up. Of those with MCI at baseline, 8 of 37 (21.6 percent) had MCI that reverted to normal cognition during follow-up, according to the study results.

The results also show that mild cognitive impairment at the one-year visit was associated with a similar progression rate to dementia (10 of 36 patients [27.8 percent] and reversion rate to normal cognition (7 of 36 [19.4 percent]). Of the 22 patients with persistent MCI at baseline and

the one-year visit, 10 (45.5 percent) developed dementia and only two (9.1 percent) had MCI that reverted to normal cognition by the end of the study.

"This prospective population-based study of an incident PD cohort demonstrates that MCI within the first year of PD diagnosis signals a highly increased risk for early incident dementia. More than 25 percent of patients with MCI at diagnosis of PD developed dementia within three years of follow-up compared with less than 1 percent of patients without MCI at PD diagnosis. Among patients with MCI at baseline and one year of follow-up, almost half progressed to dementia. These findings support the validity of the MCI concept in patients with early PD," the study authors conclude.

In a related editorial, Brian J. Copeland, M.D., and Mya C. Schiess, M.D., of the University of Texas Medical School at Houston, write: "The term mild cognitive impairment (MCI) emerged in the 1990s, defining a transition state from normal cognitive function and forcing our appreciation of cognitive changes not attributable to age, education, sex, race, ethnicity, language, or culture, but rather to a well-defined disease process or related pathology."

"Cognitive impairment in PD is common, and the use of uniform criteria for the PD-MCI diagnosis is important in furthering research, predicting the development of dementia, and developing clinical trials to test therapeutic interventions. Stable PD-MCI over time may be a prognostic factor in the later development of PDD. However, the findings from the study by Pedersen and colleagues are based on a homogenous population of patients with early PD, and generalization of the results is uncertain," they conclude.

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