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INCIDENCE OF DEMENTIA IN PARKINSON'S DISEASE: THE PINE STUDY

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Background There are few data on the incidence of dementia from prospective follow-up of community-based incident Parkinson's disease (PD) cohorts and none with a concurrent control group.

Methods The PINE study prospectively identified 206 incident PD patients in Aberdeen along with 184 age-gender matched, community-based controls. 195 patients and 184 controls gave consent for standardised annual lifelong follow-up. All research files and primary and secondary care records were reviewed to identify those who developed dementia defined by: (1) DSM-IV based clinical diagnosis by an expert neurologist/psychiatrist; (2) the Movement Disorder Society criteria for PD dementia. Incidence rates and hazard ratios (HR) were calculated and baseline predictors of dementia identified.

Results After median follow-up of five years, the incidence of DSM-IV dementia was 58.3 per 1000 person-years versus 10.7 cases per 1000 person-years in controls (median time to dementia in PD 8.5 yrs, adjusted HR 6.4, 95% CI 3.1–13.5). The MDS criteria for dementia were highly specific (99%) but not sensitive (67%). The following were independent baseline predictors of PD dementia: older age at diagnosis, self-reported cognitive impairment, lower MMSE score and lack of tremor.

Conclusion People with PD are about six times more likely to develop dementia than matched controls.