Depressive symptoms and risk of dementia

The Framingham Heart Study

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Abstract

Objectives: Depression may be associated with an increased risk for dementia, although results from population-based samples have been inconsistent. We examined the association between depressive symptoms and incident dementia over a 17-year follow-up period.

Methods: In 949 Framingham original cohort participants (63.6% women, mean age = 79), depressive symptoms were assessed at baseline (1990-1994) using the 60-point Center for Epidemiologic Studies Depression Scale (CES-D). A cutpoint of ≥16 was used to define depression, which was present in 13.2% of the sample. Cox proportional hazards models adjusting for age, sex, education, homocysteine, and APOE ε4 examined the association between baseline depressive symptoms and the risk of dementia and Alzheimer disease (AD).

Results: During the 17-year follow-up period, 164 participants developed dementia; 136 of these cases were AD. A total of 21.6% of participants who were depressed at baseline developed dementia compared with 16.6% of those who were not depressed. Depressed participants (CES-D ≥16) had more than a 50% increased risk for dementia (hazard ratio [HR] 1.72, 95% confidence interval [CI] 1.04-2.84, p = 0.035) and AD (HR 1.76, 95% CI 1.03-3.01, p = 0.039). Results were similar when we included subjects taking antidepressant medications as depressed. For each 10-point increase on the CES-D, there was significant increase in the risk of dementia (HR 1.46, 95% CI 1.18-1.79, p < 0.001) and AD (HR 1.39, 95% CI 1.11-1.75, p = 0.005). Results were similar when we excluded persons with possible mild cognitive impairment.
**Conclusions:** Depression is associated with an increased risk of dementia and AD in older men and women over 17 years of follow-up.