Postmenopausal estrogen replacement therapy and risk of AD: a population-based study.

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Abstract

OBJECTIVE: To study the association between estrogen replacement therapy in postmenopausal women and AD using a case-control design.

BACKGROUND: Studies of the effect of estrogen therapy on the risk of AD have been limited and have yielded conflicting results.

METHODS: Case patients were all postmenopausal women who developed AD in the quinquennium 1980 through 1984 in Rochester, MN (n = 222). One control subject from the same population and free of dementia was matched to each case patient by age (+/-3 years) and length of enrollment in the records-linkage system (n = 222). Estrogen exposure was defined as any form of estrogen (oral, parenteral, topical, suppository) used for at least 6 months after the onset of menopause and before the onset of AD (or corresponding year in the matched control subject). Information on dose and duration of use was abstracted. Consistent with the matched design, analyses entailed conditional logistic regression.

RESULTS: AD patients and control subjects had identical age at menarche (median: 13.0 versus 13.0 years) and age at menopause (median: 50.0 versus 50.0 years). The frequency of estrogen use was higher among control subjects than AD patients (10% versus 5%; odds ratio = 0.42; 95% confidence interval 0.18 to 0.96; p = 0.04). There was a significant trend of decreasing odds ratios with increasing duration of use. The inverse association between estrogen therapy and AD remained significant after adjustment for
CONCLUSION: These results from a population-based study suggest that estrogen replacement therapy is associated with a reduced risk of AD in postmenopausal women.