Abstract

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Ginkgo biloba for preventing cognitive decline in older adults: a randomized trial.

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Collaborators (55)

Author information

Abstract

CONTEXT: The herbal product **Ginkgo biloba** is taken frequently with the intention of improving cognitive health in aging. However, evidence from adequately powered clinical trials is lacking regarding its effect on long-term cognitive functioning.

OBJECTIVE: To determine whether G. **biloba** slows the rates of global or domain-specific cognitive decline in older adults.

DESIGN, SETTING, AND PARTICIPANTS: The **Ginkgo** Evaluation of **Memory** (GEM) study, a randomized, double-blind, placebo-controlled clinical trial of 3069 community-dwelling participants aged 72 to 96 years, conducted in 6 academic medical centers in the United States between 2000 and 2008, with a median follow-up of 6.1 years.

INTERVENTION: Twice-daily dose of 120-mg extract of G. **biloba** (n = 1545) or identical-appearing placebo (n = 1524).

MAIN OUTCOME MEASURES: Rates of change over time in the Modified Mini-Mental State Examination (3MSE), in the cognitive subscale of the Alzheimer Disease Assessment Scale (ADAS-Cog), and in neuropsychological domains of **memory**, attention, visual-spatial construction, language, and executive functions, based on sums of z scores of individual tests.

RESULTS: Annual rates of decline in z scores did not differ between G. **biloba** and placebo groups in any domains, including **memory** (0.043; 95% confidence interval [CI], 0.034-0.051 vs 0.041; 95% CI, 0.032-0.050), attention (0.043; 95% CI, 0.037-0.050 vs 0.048; 95% CI, 0.041-0.054), visuospatial abilities (0.107; 95% CI, 0.097-0.117 vs 0.118; 95% CI, 0.108-0.128), language (0.045; 95% CI, 0.037-0.054 vs 0.041; 95% CI, 0.033-0.048), and executive functions (0.092; 95% CI, 0.086-0.099 vs 0.089; 95% CI, 0.082-0.096). For the 3MSE and ADAS-Cog, rates of change varied by baseline cognitive status (mild cognitive impairment), but there were no differences in rates of change between treatment groups (for 3MSE, P = .71; for ADAS-Cog, P = .97). There was no significant effect modification of treatment on rate of decline by age, sex, race, education, APOE*E4 allele, or baseline mild cognitive impairment (P > .05).

CONCLUSION: Compared with placebo, the use of G. **biloba**, 120 mg twice daily, did not result in less cognitive decline in older adults with normal cognition or with mild cognitive impairment.

TRIAL REGISTRATION: clinicaltrials.gov Identifier: NCT00010803.

Comment in

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