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Statins reduce dementia risk by 70%

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Keywords

Dementia, statins

Context

A case-control study of British over-50s has found that those taking statins have a substantially reduced risk of developing dementia. This supports a large observational study reported earlier this year, which found an inverse relationship between treatment with pravastatin or lovastatin and incidence of Alzheimer's disease.

Significant findings

Among the controls, 13% had untreated hyperlipidemia, 11% were prescribed statins, 7% other lipid-lowering agents (LLA) and 69% had no hyperlipidemia or LLA exposure. The relative risk estimates of dementia (adjusted for age, sex, coronary artery disease, hypertension, coronary bypass surgery, cerebral ischemia, smoking and body mass index) for individuals with untreated hyperlipidemia (odds ratio 0.72, 95% CI 0.45-1.14) or treated with non-statin LLAs (0.96, 0.47-1.97) was not significant compared with people who had no diagnosis of hyperlipidemia or exposure to other lipid-lowering drugs. The adjusted relative risk for those prescribed statins was 0.29 (0.13-0.63, P = 0.002).

Comments

In the present study, people taking statins were 70% less likely to develop dementia compared with matched controls, some of whom were taking other lipid-lowering medications. These findings suggests

that the use of statins could substantially reduce the risk of dementia in the elderly, either by delaying its onset, or by opposing specific or general age-related changes that result in cognitive impairment.

Although the mechanisms underlying this relationship remain speculative, further consideration is warranted into a possible common risk factor for dementia and hypercholesterolemia. The authors note that statins not only inhibit cholesterol synthesis, but also increase endothelial nitric oxide synthase and reduce endothelin-1: 'Statins may reduce dementia risk by beneficial action on the cerebral capillary endothelium,' the authors note. 'Given the potential impact of this study, additional studies of acceptable quality are urgently needed.'

Methods

The authors used the UK General Practice Research Database to identify 284 patients with dementia; each case was then matched with up to four controls matched for age, sex, practice and date.

Additional information

References

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