Review: cholinesterase inhibitors have a modest effect on neuropsychiatric and functional outcomes in Alzheimer’s disease

QUESTION: How effective are cholinesterase inhibitors for neuropsychiatric and functional outcomes in people with mild to moderate Alzheimer’s disease?

Design
Systematic review with meta-analysis.

Data sources
The authors searched Medline, Dissertations Abstracts, PsychInfo, Biosis, Pubmed, and the Cochrane Controlled Trials Register through December 2001; examined bibliographies of reviews, original research articles, and other articles of interest; and contacted researchers and pharmaceutical companies for additional studies.

Study selection
Published and unpublished double blind randomised trials in any language were eligible if they focused on outpatients diagnosed with mild to moderate probable Alzheimer’s disease who were treated for at least one month with a cholinesterase inhibitor. 29 parallel group placebo controlled trials were included.

Main results
People treated with cholinesterase inhibitors were more likely to show improved functional and neuropsychiatric outcomes than controls (improvement of 1.72 points on the NPI over controls; 95% CI 0.87 to 2.57 points; and 0.03 points on the ADAS-noncog: 95% CI 0 to 0.05 points). There was no difference in efficacy between various cholinesterase inhibitors.

Conclusions
Cholinesterase inhibitors appear to have a modest effect on neuropsychiatric and functional outcomes in Alzheimer’s disease. It is uncertain whether these benefits affect long term outcomes such as quality of life, institutionalisation, and caregiver burden.

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