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Format: Abstract

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Treatment effects between monotherapy of donepezil versus combination with memantine for Alzheimer disease: A meta-analysis.

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Abstract

BACKGROUND: This is the first meta-analysis to compare the treatment effects and safety of administering donepezil alone versus a combination of **memantine** and donepezil to treat patients with moderate to severe Alzheimer Disease, particularly regarding cognitive functions, behavioral and psychological symptoms in dementia (**BPSD**), and global functions.

METHODS: PubMed, Medline, Embase, PsycINFO, and Cochrane databases were used to search for English and non-English articles for inclusion in the meta-analysis to evaluate the effect size and incidence of adverse drug reactions of different treatments.

RESULTS: Compared with patients who received donepezil alone, those who received donepezil in combination with **memantine** exhibited limited improvements in cognitive functions ($g = 0.378$, $p < .001$), **BPSD** ($g = -0.878$, $p < .001$) and global functions ($g = -0.585$, $p = .004$). Gradual titration of **memantine** plus a fixed dose and gradual titration of donepezil as well as a fixed dose and gradual titration of **memantine** resulted in limited improvements in cognitive functions ($g = 0.371$, $p = .005$), **BPSD** ($g = -0.913$, $p = .001$), and global functions ($g = -0.371$, $p = .001$).

CONCLUSION: Both in the 24th week and at the final evaluation point, the combination of donepezil and **memantine** led to greater improvement in cognitive functions, **BPSD**, and global functions than did donepezil alone in patients with moderate to severe Alzheimer Disease.

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