Galantamine was effective in mild-to-moderate Alzheimer disease


Clinical impact ratings: GIM/FP/GP ★★★✩✩✩ Geriatrics ★★★✩✩✩ Neurology ★★★★★✩✩

Question
In patients with mild-to-moderate Alzheimer disease, does galantamine improve clinical outcomes?

Methods
Design: Randomized placebo-controlled trial (Video-Imaging Synthesis of Treated Alzheimer’s Disease [VISTA] trial).
Allocation: Concealed.*
Blinding: Blinded (clinicians, patients, outcome assessors, data analysts, [and data collectors]).
Follow-up period: 16 weeks.
Setting: 14 sites in Canada.
Patients: 130 patients 51 to 94 years of age (mean age 77 y, 63% women) with mild-to-moderate dementia (Mini-Mental State Examination score 10 to 25 and cognitive subscale of the Alzheimer Disease Assessment Scale [ADAS-cog] score ≥ 18). Exclusion criteria were residence in nursing homes, disabling communication difficulties, active medical issues or competing causes of dementia, receipt of antidementia medications within 30 days, hypersensitivity to cholinomimetic agents or bromide, or participation in other galantamine trials.
Intervention: Galantamine, 8 mg/d for 4 weeks, followed by 16 mg/d for 4 weeks, then 16 to 24 mg/d for 8 weeks (n = 64), or placebo (n = 66).
Outcomes: Extent of attainment of personal goals on the Goal Attainment Scaling (GAS) score (much worse, no change, much better) assessed by physicians and by patients and caregivers. Secondary outcomes included the CIBIC-plus all showed significant improvement in the galantamine group, with no difference in the placebo group (Table). Patients who received galantamine also had better ADAS-cog and CIBIC-plus scores (Table). Groups did not differ for DAD and CBS scores (Table). More patients in the galantamine group had adverse events than did those in the placebo group (Table).

Main results
Patients in the galantamine group had better goal attainment on clinician-based assessment of GAS scores than did those in the placebo group, but groups did not differ for GAS scores assessed by patients and caregivers (Table). Patients who received galantamine also had better ADAS-cog and CIBIC-plus scores (Table). Groups did not differ for DAD and CBS scores (Table). More patients in the galantamine group had adverse events than did those in the placebo group (Table).

Commentary
After several randomized trials of cholinesterase inhibitors for Alzheimer disease, controversy persists over the clinical meaningfulness of statistically significant but small treatment effects that have been found using such standardized psychometric scales as the ADAS-cog. With GAS, in the study by Rockwood and colleagues, the clinician identifies dementia-related problems that the patient or caregiver wishes to change (the goals), then sets levels that reflect degrees of improvement and deterioration. Standardized scoring adjusts for the number as well as the importance of the goals, enabling GAS to be used as a research tool. That the clinician-based GAS, the ADAS-cog, and the CIBIC-plus all showed significant improvement in the galantamine group compared with the placebo group provides concurrent validity for using individualized, clinically meaningful GAS as an outcome measure, and confirms previous studies showing the short-term efficacy of galantamine in Alzheimer disease. Both galantamine and donepezil have been shown to reduce caregiver time spent helping with activities of daily living by > 50 min/d in moderate-to-severe Alzheimer disease (1, 2), an amount most would consider to be clinically meaningful.

References

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September/October 2006 | Volume 145 • Number 2
ACP Journal Club