

## Citalopram did not differ from placebo for treatment of depression in patients $\geq 75$ years of age

Roose SP, Sackeim HA, Krishnan KR, et al. Antidepressant pharmacotherapy in the treatment of depression in the very old: a randomized, placebo-controlled trial. *Am J Psychiatry*. 2004;161:2050-9.

### QUESTION

Is citalopram effective for treatment of unipolar depression in patients  $\geq 75$  years of age?

### METHODS

**Design:** Randomized placebo-controlled trial.

**Allocation:** {Concealed}‡.\*

**Blinding:** Blinded {patients, health care providers, data collectors, outcome assessors, data analysts, and monitoring committee}‡.\*

**Follow-up period:** 8 weeks.

**Setting:** Multiple centers in the United States.

**Patients:** 178 patients  $\geq 75$  years of age who had unipolar depression (single, recurrent, or nonpsychotic) based on DSM-IV criteria, with the current episode lasting  $\geq 4$  weeks; had scores  $\geq 20$  on the 24-item Hamilton Depression Scale (HDS); and were not living in residential settings. Exclusion criteria were bipolar disorder, obsessive-compulsive disorder, psychotic disorder, or current substance abuse or dependence in the previous year; current suicidal intent or attempt in the previous year; probable Alzheimer disease or vascular dementia; Mini-Mental Status Examination (MMSE) score  $\leq 18$ ; Parkinson disease; acute, severe, or unstable medical ill-

ness; or failure to respond to a trial of a selective serotonin-reuptake inhibitor (SSRI) or trials of  $\geq 2$  classes of antidepressants other than SSRIs in the current depressive episode.

**Intervention:** After a 1-week placebo run-in period, patients were allocated to citalopram, 20 mg/d ( $n = 84$ ), or placebo ( $n = 90$ ). After 4 weeks, dosages were increased to 40 mg/d in patients with HDS scores  $> 10$ .

**Outcomes:** Final HDS score, response ( $\geq 50\%$  reduction on final HDS score), and remission (final HDS score  $\leq 10$ ).

**Patient follow-up:** 174 patients (98%) (mean age 80 y, 58% women) completed  $\geq 1$  outcome assessment and were included in the intention-to-treat analysis, with last outcome carried forward. 145 patients (81%) completed the 8-week trial.

### MAIN RESULTS

Patients who received citalopram did not differ from those who received placebo for change in HDS scores {mean difference 1.3%, 95% CI -8.3 to 11}‡, response (Table), or remission (Table) at 8 weeks.

### CONCLUSION

In patients  $\geq 75$  years of age with unipolar depression, citalopram did not differ from placebo for change in Hamilton Depression Scale scores, response rates, or remission rates after 8 weeks.

*Source of funding:* Forest Laboratories.

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\*See Glossary.

†Information provided by author.

‡Calculated from data in article.

### Citalopram vs placebo for depression in patients $\geq 75$ years of age<sup>§</sup>

Outcomes at 8 wk	Citalopram	Placebo	RBI (95% CI)	NNT
Response	40%	38%	7% (-26 to 55)	Not significant
Remission¶	35%	33%	4% (-32 to 57)	Not significant

<sup>§</sup>Abbreviations defined in Glossary; RBI, NNT, and CI calculated from data in article.

|| $\geq 50\%$  reduction on final Hamilton Depression Scale score.

¶Final Hamilton Depression Scale score  $\leq 10$ .

### COMMENTARY

Although depression in older adults is often managed with drug therapy, much of the evidence of the benefit of these therapies has been obtained from studies of younger patients. The study by Roose and colleagues is an important step forward in evaluating the benefit of drug therapy in elderly patients. Specifically, they compared the benefits of citalopram and placebo in adults  $\geq 75$  years of age and found no statistically significant difference between groups. These results contrast with those of Klysner and colleagues, which found that citalopram prevented recurrent depression in older adults (1), and a systematic review of 30 randomized controlled trials, which concluded that citalopram was effective for treatment of depression in elderly patients and those with comorbid conditions (2).

There are 3 possible reasons that the study by Roose and colleagues was not conclusive. First, only 174 patients were included in the intention-to-treat analysis, and the study may have had insufficient power to detect a difference between groups given that dichotomous outcomes were used. The wide confidence intervals reported support this explanation. Second, patients were followed for only 8 weeks, which is probably inadequate to gauge a response. Third, nonpharmacologic factors

could contribute to clinical improvement of depression in elderly patients. The high response rate in the placebo group and differences in efficacy by site of enrollment suggest a need to explore nonpharmacologic determinants of recovery.

The findings of Roose and colleagues highlight the need for additional, well-designed clinical studies to explore the benefits of pharmacologic and nonpharmacologic approaches to treatment of depression in elderly persons.

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### References

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2. Keller MB. Citalopram therapy for depression: a review of 10 years of European experience and data from U.S. clinical trials. *J Clin Psychiatry*. 2000;61:896-908.