

Antidepressant may result in improved cognitive function after stroke

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Patients who received the antidepressant escitalopram following a stroke appeared to recover more of their thinking, learning and memory skills than those taking placebo or participating in problem-solving therapy, according to a report in the February issue of *Archives of General Psychiatry*.

Stroke remains a major health care problem and a significant cause of death and disability around the world, according to background information in the article. Significant recent advances in the treatment of [stroke](#) include the administration of clot-dissolving therapy, which needs to be administered within the first few hours after symptoms begin. "Consequently, besides the efforts currently undertaken to increase the number of patients treated with thrombolytic agents, there is growing interest in restorative therapies that can be administered during the first few months after stroke, the period within which we observe the greatest degree of spontaneous recovery of initial motor and cognitive deficits," the authors write.

One line of research has focused on antidepressants, which may be effective in part because of their ability to stimulate production of compounds essential for nerve cell growth. Ricardo E. Jorge, M.D., and colleagues at the University of Iowa, Iowa City, studied the effects of one antidepressant—a [selective serotonin reuptake inhibitor](#) (SSRI), escitalopram—among 129 stroke patients. Within three months of their stroke, 43 patients were randomly assigned to take 5 to 10 milligrams of escitalopram daily, 45 to take a placebo daily and 41 to participate in a

problem-solving therapy program developed for treating patients with depression.

After 12 weeks of treatment, patients taking escitalopram had higher scores on neuropsychological tests assessing overall cognitive (thinking, [learning](#) and [memory](#)) function and on those measuring verbal and visual memory. "Importantly, the reported changes in neuropsychological performance resulted in an improvement in related activities of daily living," the authors write.

"The beneficial effect of escitalopram on cognitive recovery was independent of its effect on depressive symptoms and was not influenced by stroke type or mechanism of ischemic stroke," they continue. "In addition, escitalopram was well tolerated and the frequency of adverse effects related to its administration was not different than that observed among patients receiving placebo."

Increasing evidence suggests that antidepressants cause changes in brain structure, including the visual cortex, hippocampus and cerebral cortex. These structural changes, although not yet proven to affect behavioral performance, may underlie the improvements in verbal and visual memory observed in this trial, the authors note. "Overall, whatever may be the mechanism of improved cognitive recovery, this study has shown, for the first time, that escitalopram, an SSRI, is associated with improved cognitive recovery following stroke compared with placebo and Problem-Solving Therapy," they conclude. "The utility of [antidepressants](#) in the process of post-stroke recovery deserves to be further investigated."

More information: Arch Gen Psychiatry. 2010;67[2]:187-196.

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