

Exercise Protective for Mild Memory Impairment

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Moderate physical activity improved cognition in people aged 50 years and older who had mild memory impairment, according to findings of a recently reported clinical trial.

The cognitive benefits of a light exercise program—the equivalent of walking for 20 minutes per day—became apparent within 6 months and persisted for an addition-

al year after the exercise intervention was stopped, said Dr. Nicola T. Lautenschlager of the University of Melbourne, and her associates (JAMA 2008;300:1027-37).

The investigators conducted the single-site trial to test whether a 6-month home-based exercise program would help forestall dementia. Research has suggested that people who are physically active are less likely than sedentary people to develop dementia in later life. Studies also have shown that adults with mild memory im-

pairment are more likely than those without it to develop dementia.

Dr. Lautenschlager and her colleagues assessed 170 people aged 50 and older who reported that they had memory problems but showed no dementia. In addition to this subjective memory assessment, 59 subjects were found on objective testing to have amnesic mild cognitive impairment in a single domain, 28 were found to have amnesic mild cognitive impairment in multiple domains, and 15 were found to have non-

amnesic mild cognitive impairment.

A total of 85 subjects were randomly assigned to the intervention group and encouraged to perform moderate physical activity (usually walking) in three 50-minute sessions per week. The other 85 served as a control group.

The exercise intervention included a behavioral component with a workshop, a manual and workbook, and periodic newsletters and phone calls to encourage exercising. At the conclusion of the 6-

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month intervention, subjects in the activity group were walking about 9,000 steps per week more than were subjects in the control group, as assessed by pedometers.

The intervention group showed significantly better delayed recall, lower scores on the Clinical Dementia Rating, and better scores on the Alzheimer's Disease Assessment Scale-Cognitive subscale at 6-, 12-, and 18-month assessments, the investigators said.

Although the average improvement on cognitive testing was "modest," it was significant and greater than that reported with donepezil (Aricept) therapy. Even a

small improvement is important "when one considers the relatively modest amount of physical activity undertaken by

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participants in the study," Dr. Lautenschlager and her associates noted.

The mechanism by which physical activity improves brain function is not yet

known, but it is possible that exercise improves cerebral vascular functioning and brain perfusion. Other researchers have suggested that physical activity stimulates synaptogenesis and neurogenesis, and also may preserve brain function by attenuating brain responses to stress.

In an accompanying editorial, Dr. Eric B. Larson of Group Health Center for Health Studies, Seattle, said this study, "using rigorous methods, makes the important contribution of 'proof of concept' by establishing that a relatively small dose of habitual exercise modestly improved cognition relative to

placebo, and therefore has the potential to help prevent Alzheimer's disease."

Delaying the onset of dementia, even in a small portion of the population at risk, "can produce a large absolute decline in disease prevalence because of competing sources of mortality—a patient may die of another disease before dementia can develop," he said (JAMA 2008;300:1077-9).

"If exercise is protective and if its effects can be sustained, presumably with minimal adverse effects and costs, then it becomes an attractive option and perhaps a key strategy to help reduce cognitive morbidity in an increasingly aging society," he said. ■



Important Safety Information for SEROQUEL, continued

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For bipolar disorder

References: 1. SEROQUEL Prescribing Information.
2. Data on file, DA-SER-51, AstraZeneca Pharmaceuticals LP.
3. Data on file, 263170, AstraZeneca Pharmaceuticals LP.

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