

Statin treatment may curb Alzheimer's brain changes

August 28 2007

People who take statin drugs may be less likely to develop the brain changes that signal Alzheimer's disease, according to a study published in the August 28, 2007, issue of *Neurology*, the medical journal of the American Academy of Neurology.

Previous research had suggested that people who received statins might be less likely to develop Alzheimer's disease. "But our study is the first to compare the brains of people who had received statins with those who had not," said Gail (Ge) Li, MD, PhD. The paper's lead author, Dr. Li is an assistant professor of psychiatry and behavioral sciences at the University of Washington School of Medicine, in Seattle.

She and her colleagues examined the brains of 110 Group Health members, aged 65 to 79, who had participated in Adult Changes in Thought (ACT) and who donated their brains for research. A joint project of Group Health and the University of Washington, ACT is a prospective cohort study started in 1994. It includes a random sample of Group Health members age 65 and older who had no thinking difficulties when enrolled.

The two changes in the brain that are considered the most definitive hallmarks of Alzheimer's are brain "plaques" and "tangles." After controlling for variables including age at death, gender, and strokes in the brain, the researchers found significantly fewer tangles in the brains of people who had taken statins than in those who had not. "These results are exciting, novel, and have important implications for prevention

strategies,” said senior co-author Eric Larson, MD, MPH, the leader of the ACT study and executive director of Group Health Center for Health Studies. “But they need to be confirmed, because ACT is not a randomized controlled trial.”

A randomized controlled trial of statin treatment and brain autopsy findings would be problematic for ethical and practical reasons, said Dr. Larson. But the ACT setting made the study more rigorous than previous observational epidemiological studies, because it uses reliable automated pharmacy records, is based in a community population, and includes autopsies in people both with and without dementia.

Statins (HMG coenzyme A reductase inhibitors), include atorvastatin (Lipitor), lovastatin (Mevacor), rosuvastatin (Crestor), and simvastatin (Zocor). They are widely prescribed to lower cholesterol of people who have heart disease or are at risk for it. Randomized controlled trials are testing some statins, especially those that cross the barrier between the blood and the brain, for their ability to prevent or treat Alzheimer’s disease.

“People with Alzheimer’s are diverse,” said Dr. Li. “Statins are probably more likely to help prevent the disease in certain kinds of people than others.” Larson adds, “Someday we may be able to know more precisely which individuals will benefit from which types of statins for preventing the changes of Alzheimer’s disease.”

Source: Group Health Cooperative Center for Health Studies

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