

SOUTHWESTERN NEWS

Media Contact: Rachel Horton
214-648-3404
rachel.horton@utsouthwestern.edu

PARKINSON'S DRUG LINKED TO HEART DISEASE RISK FACTOR

DALLAS – Feb. 19, 2003 – A drug used for the last 40 years to treat Parkinson's disease increases blood levels of an amino acid that could put patients at increased risk for heart disease, according to researchers at UT Southwestern Medical Center at Dallas.

Doctors have suspected that the drug levodopa can elevate body levels of the amino acid homocysteine, which is associated with an increased risk of heart disease and stroke, said Dr. Ramon Diaz-Arrastia, associate professor of neurology.

In a study published in the *Archives of Neurology*, Diaz-Arrastia and his colleagues measured homocysteine levels in blood samples from 235 Parkinson's patients, including 201 who had been treated with levodopa.

"We did find that there is a statistically modest increased risk of heart disease in Parkinson's patients with elevated homocysteine," Diaz-Arrastia said.

The findings imply that patients being treated with levodopa should ask their neurologists to monitor the level of homocysteine in their blood, particularly if they are at risk for heart disease, Diaz-Arrastia said.

The conclusions should not prevent people from using levodopa, he said.

"This medicine is necessary for parkinsonism," Diaz-Arrastia said. "It is very effective therapy, but physicians may need to pay attention to their patients' homocysteine levels."

Parkinson's disease leads to a reduction of dopamine, a brain chemical vital for controlling body movement. As a result, patients suffer from muscle tremors, rigidity of movement, and balance and coordination problems. Levodopa alleviates symptoms by replenishing lost stores of dopamine in the brain, but the drug does not cure the disorder or slow its progression.

Participants in the study who had received levodopa showed significantly higher levels of homocysteine in their blood than people who had not taken the drug. Patients with the highest

(MORE)

PARKINSON'S DRUG - 2

homocysteine levels had an increased prevalence of coronary artery disease, according to the study; however, the retrospective nature of the study made it impossible to determine conclusively if levodopa therapy was responsible for the increased prevalence of vascular disease, Diaz-Arrastia said.

Low levels of vitamin B12 and folic acid are a common cause of increases in homocysteine levels in the blood. Deficiencies of these vitamins, however, did not explain the elevated homocysteine levels among patients who had used levodopa in the study.

Previous studies have suggested that high levels of homocysteine can also elevate the risk of dementia and depression.

“Homocysteine has gotten a lot of attention over the last 10 years or so as a risk factor for heart disease and has gotten even more attention lately as a risk factor for Alzheimer’s disease,” Diaz-Arrastia said.

About one-third of patients with Parkinson’s develop dementia. Diaz-Arrastia said the study raises the question of whether levodopa increases that risk.

Dr. Alan Frol, assistant professor of psychiatry at UT Southwestern, also participated in the study published in January 2003, as well as scientists from the Hyman-Newman Institute for Neurology and Neurosurgery at Beth Israel Medical Center in New York.

The study was funded by grants from the National Institutes of Health and the Institute for the Study of Aging.

###

This news release is available on our World Wide Web home page at
http://www.utsouthwestern.edu/home_pages/news/

To automatically receive news releases from UT Southwestern via e-mail,
subscribe at <http://lists.utsouthwestern.edu/mailman/listinfo/utswnews>