Georgetown physician leads national resveratrol study for Alzheimer's disease

May 14 2012

A national, phase II clinical trial examining the effects of resveratrol on individuals with mild to moderate dementia due to Alzheimer's disease has begun as more than two dozen academic institutions recruit volunteers in the coming months. R. Scott Turner, M.D., Ph.D., director of Georgetown University Medical Center's Memory Disorders Program, is the lead investigator for the national study.

Resveratrol is a compound found in red grapes, red grape juice, red wine, chocolate, tomatoes and peanuts. Pre-clinical and pilot clinical research studies suggest that resveratrol may prevent diabetes, act as a natural cancer fighter, ward off cardiovascular disease, and prevent memory loss, but there has been no large definitive study of its effects in humans.

The risk of all of these diseases increases with aging. Animal studies suggest that resveratrol may impede molecular mechanisms of aging. Human population studies suggest several health benefits from modest daily consumption of red wine, but the mechanisms of action in the body are unknown.

"Most resveratrol studies showing any health benefits have been conducted in animal models, such as mice, and with doses that far exceed intake from sipping wine or nibbling on chocolate," says Turner. "With this clinical trial, we'll find out if daily doses of pure resveratrol can delay or alter memory deterioration and daily functioning in people with mild to moderate dementia due to Alzheimer's."

"During this study, we will also test whether resveratrol improves glucose and insulin metabolism in older individuals -- although those who already have diabetes will not be included in this study."

Resveratrol is not approved by the Food and Drug Administration for the treatment of Alzheimer's. It is not known if resveratrol can change the course of the disease.

Not everyone who enrolls in the study will receive resveratrol. Half of the participants will receive a placebo (a sugar pill made to look like the resveratrol pill) to allow researchers to more objectively test the benefits of resveratrol. Neither the patient nor the clinical staff will know if the study participant is receiving the placebo or resveratrol until the end of the study.

"This is the gold-standard for conducting a clinical study because it allows us to objectively determine if resveratrol is offering any benefits," explains Brigid Reynolds, NP, lead investigator for the study at Georgetown.

In addition, the phase II study will examine the safety and tolerability of resveratrol administered twice daily with a dose increase planned at three-month intervals, she says.

According to the National Institute of Aging, more than 5.3 million people in the U.S. are suffering from Alzheimer's, and every 70 seconds, another person develops this disease. In Washington, DC, more than 9,000 people aged 65 and older are currently living with Alzheimer's.

The resveratrol study will be conducted at 26 U.S. academic institutions that are affiliated with the Alzheimer's Disease Cooperative Study. Patients who volunteer for the study cannot be enrolled in another clinical trial during the study period. They will also be asked to abstain

from eating or drinking large quantities of foods or beverages that contain resveratrol, and abstain from taking dietary supplements containing resveratrol.

Each patient will be in the study for a twelve-month period and will require a study partner (spouse, friend or caregiver) to visit the Georgetown University Medical Center 10 times over the course of that year. Participants must be willing and able to undergo two lumbar punctures (a procedure where a needle is inserted into the lower spine to collect fluid), three MRI scans of the brain, and blood and urine tests during the course of the study.

The research is sponsored by the Alzheimer's Disease Cooperative Study (ADCS), through a grant from the National Institute on Aging (NIA). Turner and Reynolds report no personal financial interests related to the study.

Provided by Georgetown University Medical Center