

Dementia linked to high blood pressure years earlier

January 12 2010

High blood pressure may put women at greater risk for dementia later in life by increasing white matter abnormalities in the brain, report researchers from the University of Pittsburgh Graduate School of Public Health in a study published online in the *Journal of Clinical Hypertension*.

"Hypertension is very common in the U.S. and many other countries, and can lead to serious health problems," said Lewis Kuller, M.D., Dr.P.H., professor of epidemiology, University of Pittsburgh Graduate School of Public Health. "Proper control of blood pressure, which remains generally poor, may be very important to prevent dementia as women age."

The study, part of the multisite and long-term Women's Health Initiative Memory Study (WHIMS), included 1,424 women 65 or older who had their blood pressure assessed annually and underwent magnetic resonance imaging (MRI) of the brain. Researchers assessed white matter lesions, which are associated with increased risks for dementia and stroke. White matter makes up 60 percent of the brain and contains nerve fibers responsible for communication among the brain's regions.

Women who, at the start of the study, were hypertensive, meaning a blood pressure of 140/90 or higher, had significantly more white matter lesions on their MRI scans eight years later than participants with normal blood pressure. Lesions were more common in the frontal lobe, the brain's emotional control center and home to personality, than in the



occipital, parietal or temporal lobes.

"Women should be encouraged to control <u>high blood pressure</u> when they are young or in middle-age in order to prevent serious problems later on," said Dr. Kuller. "Prevention and control of elevated blood pressure and subsequent vascular disease in the brain may represent the best current preventive therapy for <u>dementia</u>."

Provided by University of Pittsburgh Schools of the Health Sciences

Citation: Dementia linked to high blood pressure years earlier (2010, January 12) retrieved 10 April 2024 from

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