NEWS FROM THE ALZHEIMER’S ASSOCIATION INTERNATIONAL CONFERENCE

In Late Life, Low Blood Pressure Reportedly Increases Dementia Risk

BY LISA J. BAIN

ARTICLE IN BRIEF
At the Alzheimer's Association International Conference, several teams of investigators reported that low blood pressure in late life can increase the likelihood of brain atrophy and cognitive impairment, but only in people who had hypertension during mid-life.

VANCOUVER, BC—Although hypertension is widely believed to elevate the risk of developing dementia, data presented here at the Alzheimer's Association International Conference in July, have added to a growing chorus of voices suggesting that in older individuals, low blood pressure may be an even bigger problem.

Major Muller, MD, PhD, an epidemiologist and geriatrician at the VU University Medical Center in Amsterdam, the Netherlands, and currently a visiting fellow at the NIH National Institute on Aging (NIA), reported results from the AGES Reykjavik Study, which showed that low blood pressure in late life can increase the likelihood of brain atrophy and cognitive impairment, but only in people who had hypertension during mid-life.

Sor of epidemiology at Mayo Clinic in Rochester, MN, reported. Midlife hypertension was associated with a 1.7-fold increased risk of having cortical infarctions (p=0.01).

In people with a history of hypertension, reduced blood pressure was associated with an increase in the neurodegeneration biomarker CSF phospho-tau, as well as in deterioration of episodic memory, Liida Glodzik, MD, research assistant professor of radiology and psychiatry at the New York University Langone Medical Center reported. A decrease in mean arterial pressure (MAP) — MAP = 1/3 SBP + 2/3 DBP — over 2 years was associated with an increase in CSF phospho-tau181 (r=0.5, p=0.01). A decrease in MAP was associated with poorer performance on tests of verbal episodic memory (r=0.46, p=0.03).

A RISK FACTOR OR INDICATOR?
Dr. Muller speculated that high mid-life blood pressure could increase the risk of cerebral hypoperfusion through microvascular pathology and changes in autoregulatory mechanisms in the brain that are intended to protect the brain against high blood pressure. These mechanisms, she said, could make the brain more vulnerable to lower blood pressure later in life, whether that lower blood pressure resulted from treatment with antihypertensive medication or from reduced cardiac output or arterial stiffness.

‘It’s quite complicated. If you’ve been healthy all your life and you have low...”

Continued on page 8
Low Blood Pressure, Dementia
Continued from page 7

blood pressure later in life, it’s good. But when you have high blood pressure levels all your life, and later in life they are lower, it might be a problem because the brain is not set on these lower blood pressure levels, and this low blood pressure might be inadequate for healthy cerebral perfusion,” Dr. Muller said.

The study, led by researchers at the National Cancer Institute and the Institute of Health and Society at New castle University in England, examined rates of brain cancer and leukemia in people younger than 22 who received CT scans between 1985 and 2002 in Great Britain. Seventy-four out of 176,587 developed a rate of about 50 mGy might triple the risk of brain cancer, while a dose of about 60 milligray (mGy) — about 10,000 head CT scans for each 10 milligray.

The authors concluded that a dose of about 60 milligray (mGy) — about two or three CT scans — might triple the risk of brain cancer, while a dose of about 50 mGy might triple the risk of leukemia. However, because these cancers are relatively rare, the increase in the number of cases remains small, with no more than one excess brain tumor and one excess case of leukemia expected per 10,000 head CT scans for each 10 milligray.

The study, led by researchers at the National Cancer Institute and the Institute of Health and Society at New castle University in England, examined rates of brain cancer and leukemia in people younger than 22 who received CT scans between 1985 and 2002 in Great Britain. Seventy-four out of 176,587 developed a rate of about 50 mGy might triple the risk of brain cancer, while a dose of about 60 milligray (mGy) — about 10,000 head CT scans for each 10 milligray.

The authors concluded that a dose of about 60 milligray (mGy) — about two or three CT scans — might triple the risk of brain cancer, while a dose of about 50 mGy might triple the risk of leukemia. However, because these cancers are relatively rare, the increase in the number of cases remains small, with no more than one excess brain tumor and one excess case of leukemia expected per 10,000 head CT scans for each 10 milligray.

The study, led by researchers at the National Cancer Institute and the Institute of Health and Society at New castle University in England, examined rates of brain cancer and leukemia in people younger than 22 who received CT scans between 1985 and 2002 in Great Britain. Seventy-four out of 176,587 developed a rate of about 50 mGy might triple the risk of brain cancer, while a dose of about 60 milligray (mGy) — about 10,000 head CT scans for each 10 milligray.

The authors concluded that a dose of about 60 milligray (mGy) — about two or three CT scans — might triple the risk of brain cancer, while a dose of about 50 mGy might triple the risk of leukemia. However, because these cancers are relatively rare, the increase in the number of cases remains small, with no more than one excess brain tumor and one excess case of leukemia expected per 10,000 head CT scans for each 10 milligray.