



the compassion to care, the leadership to conquer

All materials to be presented at the 2008 Alzheimer's Association International Conference on Alzheimer's Disease (ICAD 2008) are embargoed for publication and broadcast until the date and time of presentation at the International Conference on Alzheimer's Disease, unless the Alzheimer's Association provides written notice of change of date/time in advance.

EMBARGOED FOR RELEASE UNTIL WEDNESDAY, JULY 30, 2008, 1:30 PM CT

CONTACT:

**Alzheimer's Association media line: 312-335-4078, media@alz.org
ICAD 2008 press room, July 27-31: 312-949-3253**

**LIFESTYLE FACTORS CONTRIBUTE TO LOWERING AND RAISING RISK
OF ALZHEIMER'S DISEASE**

***- Unmarried Status in Mid-Life and Heart Disease Factors May Increase Alzheimer's Risk -
- Repeatedly Thinking About Problems May Reduce Alzheimer's Risk -***

CHICAGO, IL, July 30, 2008 – A new study suggests that those who are unmarried or not living with a partner in midlife could have an increased risk of developing Alzheimer's disease, according to research reported today at the 2008 Alzheimer's Association International Conference on Alzheimer's Disease (ICAD 2008), in Chicago.

Additional research on Alzheimer risk factors presented at ICAD 2008 indicates that people who ruminate, or repeatedly think about their problems, may be less likely to develop the disease, while people with metabolic syndrome (a combination of cardiovascular health related symptoms) are at higher risk. Finally, a large meta-analysis of nine European risk factor surveys confirmed a well recognized group of Alzheimer risk factors, including memory complaint, severe head trauma, diabetes, stroke and low education.

"We may not be able to do anything about aging, genetics or family history, but research shows us that there are lifestyle decisions we all can make to keep our brains healthier as we age, and that also may lower our risk of developing Alzheimer's disease," said William Thies, PhD, vice president of Medical and Scientific Relations for the Alzheimer's Association.

Unmarried Life: Paving the Way for Dementia?

Research suggests that maintaining regular social interaction can contribute to maintaining brain health as we age and possibly decrease one's risk of developing Alzheimer's. When people are married they are able to have close interaction on a regular basis. This may reduce the occurrence of dementia.

Krister Håkansson, BA, of Karolinska Institutet, KI Alzheimer Research Center, Stockholm, Sweden and Växjö University, School of Social Sciences, Växjö, Sweden, conducted a first-of-its-kind evaluation of whether midlife marital status is related to late-life cognitive function. The study examined 1,449 individuals from the Finnish Cardiovascular Risk Factors, Aging, and Dementia (CAIDE) study in midlife and then again in 1998, an average of 21 years later.

At re-examination, 139 persons were diagnosed with some form of cognitive impairment: 82 with mild cognitive impairment (MCI) and 48 with Alzheimer's. Persons in the study who were living with a partner in midlife were significantly less likely to show cognitive impairment compared to all other categories (single, separated, divorced or widowed). Those in the study who were married or lived with a significant other in midlife had a 50% lower risk of having dementia in late-life compared to those who lived alone,

even after adjustments for education, BMI, cholesterol, blood pressure, occupation, physical activity, smoking habits, depression, ApoE status, age at follow-up and gender.

The researcher observed that there were differences between groups of people who had been living alone for different reasons. The all-life singles had a doubled risk, whereas the ones who stayed divorced from midlife onwards had a tripled risk. The most dramatic risk increase was found for those widowed before midlife and who stayed widowed. Compared to those married at midlife and still so at late-life, they had more than a six-fold risk of developing Alzheimer's.

“Living in a couple relationship is normally one of the most intense forms of social and intellectual stimulation. If social and cognitive challenges can protect against dementia, so should living in a couple relation,” said Håkansson. “This study points to the beneficial effects of a married life, consistent with the general hypothesis of social stimulation as a protective factor against dementia.”

Tendency for Rumination in Midlife May Decrease Risk for Dementia Decades Later

According to Ramit Ravona-Springer, MD, of Sheba Medical Center, Tel Hashomer, Ramat Gan, Israel and colleagues, “rumination” refers to the disposition for repetitive thinking over one's problems.

Tendency for rumination when confronting difficulties in family and work settings was assessed in about 9,000 participants in the IIHD study, a longitudinal investigation of the incidence and risk factors for cardiovascular disease among Jewish male civil servants in Israel. Tendency for rumination was assessed as 1=always forget, 2=tend to forget, 3=tend to ruminate, 4=usually ruminate.

Dementia was assessed three decades later in 1,890 participants among 2,604 survivors of the original cohort. Mean age of the participants was 82 at the time of final assessment. 308 were diagnosed as demented, 175 as having mild cognitive impairment, and 1,407 had no cognitive impairment.

The prevalence rates of dementia (adjusted for age, area of birth, and socioeconomic status) were 21% for those who always forget difficulties in familial settings, 18% for those who tend to forget, 14% for those who tend to ruminate over difficulties, and 14% for those who usually ruminate. When rumination in response to difficulties at work was assessed, prevalence rates of dementia were 24% for those who always forget difficulties, 19% for those who tend to forget, 15% for those who tend to ruminate over difficulties, and 15% for those who usually ruminate.

A total score for rumination in both family and work settings was calculated, and subjects were divided into four groups according to this score. Relative to the group with the lowest total rumination score, dementia prevalence was 30 to 40 percent less in groups with higher scores.

“Your personality traits, specifically your psychological and cognitive style when confronting distress, may be associated with your risk for dementia,” said Ravona-Springer. “However, exactly how this works still needs to be determined.”

Metabolic Syndrome May Lead to Cognitive Decline

Metabolic syndrome (Met.S) is a group of heart disease risk factors that includes abdominal obesity, elevated blood pressure, high triglycerides, elevated blood sugar and low HDL cholesterol. Those who have Met.S are at higher risk for developing diabetes, hypertension, and stroke, all of which increase the risk of developing dementia, including Alzheimer's disease.

Matheus Roriz-Cruz, MD, PhD, Federal University of Rio Grande do Sul State, Brazil and colleagues studied the effects of Met.S on the development of cognitive impairment in people who have not had a stroke. Researchers evaluated 422 healthy elderly men and women over age 60 in Brazil and used a battery

of scales to assess cognition, depression, planning and activities of daily living. Met.S was present in 39.3% of participants.

Data from the study revealed that all neurofunctional scores were significantly lower for those with Met.S, and the difference increased with age. Older people with Met.S had an almost 35% higher level of cognitive compromise when compared to those without Met.S.

“Met.S was independently associated with lower cognitive, planning, neuromotor and functional scores, and with more depressive symptoms,” said Roriz-Cruz. “The results from this study reinforce the importance of maintaining good physical health in order to reduce one’s risk of experiencing cognitive decline, and possibly developing Alzheimer’s disease.”

Risk Factors for Progression to Dementia in General Population

In the general population, many risk factors and predictors for dementia have been identified. However, a combination of risk factors may give a more accurate prediction for dementia than each individual risk factor.

Sylvaine Artero, of INSERM, Montpellier, France; Pieter Jelle Visser, of the University of Maastricht, The Netherlands; and colleagues analyzed a pooled database constructed from nine European surveys of dementia risk factors, including a total of 16,261 participants over age 55 without dementia. Potential risk factors were evaluated at baseline and incident dementia was assessed over a follow up period of up to 15 years. Risk factors included cardiovascular disorders, endocrine disorders, depression, head trauma, intoxicants (including alcohol, smoking and drugs), physical and intellectual activities, performance in activities of daily living, Apolipoprotein E genotype, cognitive complaint, and cognitive test performance.

In total, 1,530 subjects (9%) progressed towards dementia. In order, the most predictive variables were: impairment in executive function (planning), memory problems (as measured on tests), subjective complaints about memory/cognitive failure, Apolipoprotein E (ApoE) genotype, use of psychotropic medication, severe head trauma, diabetes, stroke, and problems with language. In addition, problems with activities of daily living, smoking, no drinking, no use of hypertensive drugs, low education, and female gender all independently predicted dementia at follow-up.

“Cases of dementia in the general population can be best identified by a combination of socio-demographic, clinical and cognitive factors,” said Artero. “Developing a better understanding of the factors that increase risk for Alzheimer’s will help us to create more effective methods to prevent people from developing the disease.”

About ICAD 2008

The 2008 Alzheimer’s Association International Conference on Alzheimer’s Disease (ICAD 2008) is the largest gathering of international leaders in Alzheimer research and care ever convened. At ICAD 2008, more than 5,000 researchers from 60 countries will share groundbreaking information and resources on the cause, diagnosis, treatment and prevention of Alzheimer’s and related disorders. As a part of the Association’s research program, ICAD serves as a catalyst for generating new knowledge about dementia and fostering a vital, collegial research community. ICAD 2008 will be held in Chicago at McCormick Place, Lake Side Center from July 26–31.

About the Alzheimer’s Association

The Alzheimer’s Association is the leading voluntary health organization in Alzheimer’s research, care and support. Our mission is to eliminate Alzheimer’s disease through the advancement of research, provide and enhance care and support for all affected, and reduce the risk of dementia through the promotion of brain health. Our vision is a world without Alzheimer’s. For more information, visit www.alz.org.

#

- Krister Håkansson – “Unmarried life: Paving the way for dementia?” (Funders: Gun and Bertil Stohne Foundation)
- Ramit Ravona-Springer – “Tendency for rumination as a psychological cognitive style in midlife is associated with decreased risk for dementia three decades later.” (Funders: Israel Science Foundation, Israel Academy of Sciences and Humanities)
- Matheus Roriz-Cruz – “Metabolic syndrome, successful and pathological neuroaging in a stroke-free elderly population.” (Funders: Ministries of Education, Brazil and Japan)
- Sylvaine Artero, Pieter Jelle Visser – “Risk factors for progression to dementia in general population: the Descripa study (European pooled data base).” (Funder: European Commission, 5th framework programme (QLK-6-CT-2002-02455))

EMBARGOED FOR RELEASE UNTIL WEDNESDAY, JULY 30, 2008, 1:30 PM CT