Healthful Living May Slow Alzheimer's Disease

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CHICAGO — A concerted effort to take better care of the brain with more healthful behaviors is likely to reduce the future incidence of Alzheimer's disease and may even slow disease progression in those who already have the disease, Dr. Nancy Emerson Lombardo said.

Cardiovascular health and glucose metabolism contribute to brain health, and the rise in obesity and other chronic illnesses has a direct impact on brain health, Dr. Lombardo said at a conference on dementia sponsored by the Alzheimer's Association.

Dr. Lombardo of the Boston University Medical Center has developed a lifestyle program trademarked as "Be Well," based on research into the effects of nutrition on brain health.

"Be Well" dovetails with the Alzheimer's Association's "Maintain Your Brain" campaign, as well as the Centers for Disease Control and Prevention's brain health planning effort that was recently funded by Congress (for more information, visit www.alz.org).

Dr. Lombardo explains that healthy brain tissue is better able to withstand the ravages of age, genetic vulnerabilities, environmental stresses, accidents, toxins, and disease. Healthy lifestyles "help us enhance and strengthen neurons, dendrites, and other body and brain cells."

In addition, said Dr. Lombardo, obesity increases inflammation which, in turn, increases oxidative stress, possibly resulting in diabetes, heart disease, stroke, arthritis, osteoporosis, some cancers, and Alzheimer's disease (AD). "What harms the heart also harms the brain. Obesity, high blood pressure, diabetes, and heart problems all increase the risk for dementia. The future of all our obese young people is really scary," she remarked.

If lifestyle can delay the onset of AD by 5 years, the prevalence of the disease would be halved, said Dr. Lombardo, who placed nutritional deficiency and excessive calories at the top of the list of societal factors threatening brain health in the United States.

Dr. Lombardo's Memory Preservation Diet reflects a convergence of independent research findings that nutrition can protect against AD, as well as diabetes and vascular diseases, which themselves are thought to elevate risk for AD.

Other factors that adversely affect brain and body health include increases in stress, social disconnections, insufficient sleep, and environmental toxins.

"The first human placebo-controlled randomized clinical trial to be reported using marine-derived omega-3 fatty acids with persons with AD both confirmed the indications of the epidemiological and lab studies but also [suggested] the limitations of a single nutrient" for affecting the course of AD, she said (Arch. Neurol. 2006;63:1402-8).

In this Swedish trial of 174 AD patients, consumption of a daily intake of 1.7 grams of docosahexaenoic acid (DHA) and 0.6 grams of eicosapentaenoic acid (EPA) significantly slowed disease progression, but only in those with very mild dementia (Mini-Mental State Examination [MMSE] scores above 27).

The only AD diet study to date, carried out in Japan, reported that a daily regimen of fish along with additional fruits and vegetables and consumption of fewer sweets slowed progression of AD (J. Nutr. Health Aging 2004;8:432).

This controlled clinical trial with 56 subjects compared standard medical care with a daily diet of 80-90 g of fish, two servings of green vegetables, one serving of fruit, 1.3 L of water, and reduced sweets. All participants were on cholinesterase inhibitors.

Those in the diet treatment group had stable MMSE scores, sustained over a 30-month period, but scores declined by 6 points during the same time in control participants.

When and how we eat is also important, said Dr. Lombardo, stressing that it's important to have breakfast and to eat sitting at a table, preferably with other people.

Other societal factors that adversely affect brain and body health include lack of exercise, increases in stress, insufficient sleep, social disconnections, and environmental toxins, Dr. Lombardo said. ■