

SOUTHWESTERN NEWS

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FIRST STUDY OF ALZHEIMER'S DISEASE AND CHEROKEES INDICATES TRIBAL MEMBERS INHERIT PROTECTIVE GENE

DALLAS – Oct. 15, 1996 – The first study of Alzheimer's disease in members of the Cherokee tribe indicates that these American Indians are genetically protected against the disease in proportion to their Cherokee ancestry.

Dr. Roger Rosenberg, director of the Alzheimer's Disease Center at UT Southwestern Medical Center at Dallas, is lead author of a paper reporting the study results in the October *Archives of Neurology*.

"The larger the percentage of ancestry, the larger the protection seems from Alzheimer's disease," Rosenberg said.

The study showed the rate of Alzheimer's disease in 9 of 26 tribal members over age 65 with more than 50 percent Cherokee ancestry was 34.6 percent compared with a 65.3 percent rate for the 17 tribal members with less than 50 percent Cherokee ancestry. However, the effects of this protective gene diminishes as the person continues aging, Rosenberg said.

"For example, the odds of developing Alzheimer's disease are estimated to be nine times greater at age 65 for each decrease of 10 percent of Cherokee ancestry compared with only 1.34 times greater at age 80," said Rosenberg, who holds the Abe (Brunky), Morris and William Zale Distinguished Chair in Neurology and serves as director of the Josephine Rudman Laboratory for Alzheimer's Disease Research at UT Southwestern.

Researchers also looked at APOE- ϵ 4, a lipoprotein considered a risk factor for the disease, but found the protective effect was not due to the absence of APOE- ϵ 4 in American Indians.

Rosenberg said these findings are being compared to other scientific studies that determined the American Indian is most closely related genetically to present populations

(MORE)

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in Southeastern Asia and is quite distinct from the North American Eskimo, who is more closely related genetically to northern Mongolian and Siberian peoples, even though Eskimos migrated on the same route and at the same time.

The data was collected by UT Southwestern researchers and colleagues at the University of Oklahoma College of Medicine through a Northeastern Oklahoma satellite program of UT Southwestern's Alzheimer's Disease Center.

Researchers collected data from 26 Cherokee Alzheimer's disease patients and 26 control subjects living in the 14-county jurisdiction of the tribe.

The study is the first to be published from research efforts by the UT Southwestern's Oklahoma satellite clinic for clinical care and research of Cherokee and other American Indian tribes. Sites were established four years ago in Tulsa and Tahlequah, a northeastern Oklahoma city.

Rosenberg said he is encouraged about the results of the first study, which could not have been done without the cooperation and backing of the Cherokee Nation. Those efforts included support from immediate past Principal Chief Wilma Mankiller, Principal Chief Joe Byrd and the Cherokee Nation's health services staff.

Other authors on the paper included Dr. Ralph W. Richter, Oklahoma satellite director, and members of the satellite research team. UT Southwestern colleagues in the study included Dr. Myron F. Weiner, professor of psychiatry and holder of the Aradine S. Ard Chair in Brain Research; Doris Svetlik, supervisor of the Alzheimer's Clinic; Dr. Perrie Adams, associate dean for research and associate director of the Alzheimer's Disease Center; Dr. Lawrence S. Honig, assistant professor of neurology; Dr. C. Munro Cullum, the center's neuropsychologist; and statistician Richard C. Risser.

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