

Researchers find parental dementia may lead

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People who have parents diagnosed with Alzheimer's disease or dementia perform less well on formal memory testing when compared to people of the same age whose parents never developed Alzheimer's disease or other dementia. This is true even in middle-aged persons who do not have a diagnosis of clinical stroke or dementia, according to a Boston University School of Medicine (BUSM) study. This study has been selected to be presented at a Plenary Session at the American Academy of Neurology's 61st Annual Meeting in Seattle, Wash from April 25 - May 2.

Researchers from the Framingham Heart Study (FHS) are following three generations of participants to study the risk factors and earliest biomarkers of Alzheimer's disease, stroke and other cardiac and neurological diseases. The first generation has been followed since 1948. Since both the parental and offspring generation are enrolled as study participants, researchers could accurately identify which parents did or did not develop Alzheimer's disease or other dementia in their lifetime.

For this study, researchers studied 715 participants (372 women, 343 men) belonging to the second generation of FHS (average age 59) using standardized cognitive tests and MRI brain scans. One group of 282 persons had one or both parents fulfilling standardized criteria for a diagnosis of dementia, the other group of 433 persons had parents who were known to be free of dementia. The scientists also tested all these individuals for a gene thought to be a strong risk factor for dementia, called the ApoE ϵ 4 gene.

Among persons who were carriers of the ApoE ϵ 4 gene, those who had parents with Alzheimer's disease or other dementia scored significantly worse on tests of verbal memory and visual memory than persons who did not have parents with Alzheimer's dementia.

"Parental dementia and Alzheimer's disease were significantly associated with poorer performance in verbal and visual memory tasks," said senior author Sudha Seshadri, MD, associate professor of neurology and co-director of the Medical Education for Neurology Residency Program at Boston University School of Medicine.

Researchers further concluded that the result in persons with parents who have Alzheimer's disease is equivalent to approximately 15 years of brain aging. The effect was largely limited to those study participants who have the ApoE ϵ 4 gene, which supports the idea that the gene is probably at least partially responsible for the transmission of Alzheimer's disease risk between generations.

Source: Boston University

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