

Age-related eye disease may be associated with cognitive impairment

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Older adults with low scores on tests of cognitive function, including thinking, learning and memory appear more likely to have the early stages of the eye disease age-related macular degeneration, according to a report in the May issue of *Archives of Ophthalmology*.

Age-related macular degeneration (AMD)—the leading cause of visual impairment in industrialized nations—has long been thought to share a common pathway with Alzheimer's <u>disease</u>, according to background information in the article. First, both conditions involve similar changes in the brain and eye, including the buildup of protein fragments known as beta-amyloid. "Second, clinical studies suggest that AMD and Alzheimer's disease share similar vascular risk factors, such as hypertension [high blood pressure] and cigarette smoking," the authors write. "Both AMD and Alzheimer's disease have been linked to an increased risk of stroke."

Michelle L. Baker, M.D., of the University of Melbourne, Victoria, Australia, and colleagues assessed 2,088 individuals age 69 to 97. Participants underwent cognitive testing, retinal photography for the detection of AMD and an extensive assessment of artery disease and its risk factors (including blood pressure, smoking status and <u>body mass</u> <u>index</u>).

After controlling for age, sex, race and the center at which they participated in the study, the one-fourth of individuals with the lowest scores on one cognitive test were twice as likely to have early-stage



AMD as were individuals with higher scores. However, there was no association between AMD and scores on a second cognitive test, dementia or Alzheimer's disease.

"In conclusion, we found an association between low cognitive function and early AMD in this older population," the authors write. "These data, along with others, provide further support that AMD and cognitive impairment may share similar complex pathogenesis [development] and risk factors."

More information: Arch Opthalmol. 2009;127[5]:667-673

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