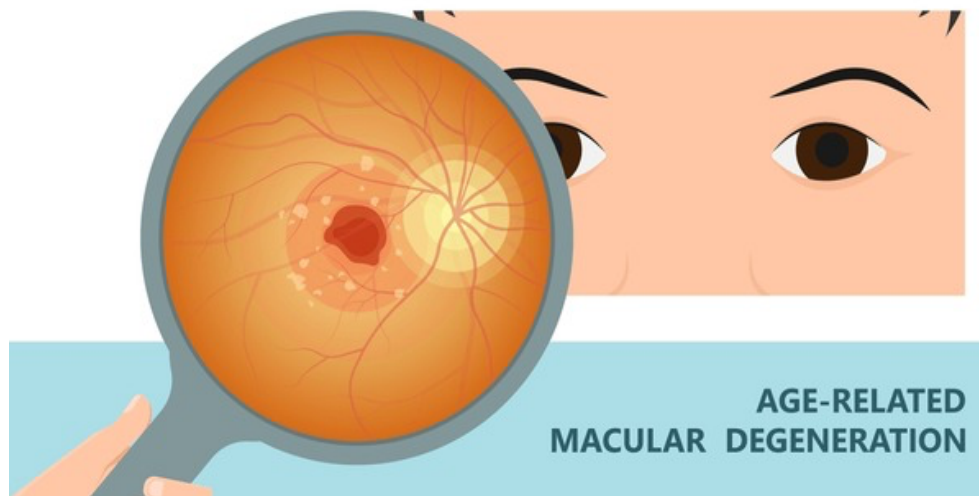


Alzheimer Disease Treatment with Acetylcholinesterase Inhibitors and Incident Age-Related Macular Degeneration



Background

Age-related macular degeneration (AMD) is a common yet serious ophthalmologic disorder. In addition, it is the most common cause of severe eyesight loss among older adults. Although the full cause of macular degeneration is unknown, one potential hypothesis revolves around inflammatory reactions in the macula (a small area in the center of the retina of the eye). Based upon this hypothesis, medications with anti-inflammatory effects could potentially modify the risk of developing AMD. One class of medications used for Alzheimer's disease, acetylcholinesterase inhibitors (AChEIs), are believed to have anti-inflammatory effects and are of interest for this purpose. To investigate the association between AChEIs and the incidence of AMD, a retrospective cohort study was conducted between January 2000 and September 2023.

Study Results

Included participants were individuals from the US Department of Veterans Affairs (VA) health care system between ages 55 to 80 with an Alzheimer's disease diagnosis. Additionally, included participants did not have a pre-existing diagnosis of AMD within the VA database. Exposure to AChEIs was measured along with first diagnosis of AMD. Ultimately, a total of 21,823 veterans (21,313 male participants [97.7%] and 510 female participants [2.3%]) were included. The results showed that each additional year of AChEI treatment was associated with a 6% lower hazard of AMD (hazard ratio, 0.94; 95% CI, (0.89-0.99)). Although this observational study highlighted a small reduction in the risk of AMD, more research is needed. Ideally, randomized clinical trials would be performed to better understand if there is a cause and effect between AChEIs and prevention of AMD. However, this study still presents a promising development in potential treatment strategies and utilization of already existing medications for preventing AMD.

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