

Calcium Supplementation Associated With Macular Degeneration

Jenni Laidman | April 10, 2015

Individuals who take more than 800 mg of calcium daily are almost twice as likely to be diagnosed with age-related macular degeneration (AMD) as those who did not, according to the results of a new study published online April 9 in *JAMA Ophthalmology*.

Rahul Khurana, MD, a clinical spokesperson for the American Academy of Ophthalmology and a partner at Northern California Retina Vitreous Associates in Mountain View, who was not involved in the study, cautioned that it is an exploratory analysis.

"It shows association but not causation. Since it is a cross-sectional study, it cannot show causation," he wrote in an email to *Medscape Medical News*.

Caitlin L. M. Kakigi, BA, from the Department of Ophthalmology, University of California, San Francisco, and colleagues evaluated 3191 participants in the 2007 to 2008 National Health and Nutrition Examination Survey (NHANES) aged 40 years and older, including 248 patients with AMD diagnosed by fundus photography. Each participant was surveyed about consumption of dietary supplements and antacids during the 30-day period preceding trial enrollment.

The researchers found the odds of an AMD diagnosis were elevated among participants who reported taking 800 mg of calcium or more daily. An odds ratio (OR) of 1.85 (95% confidence interval [CI], 1.25 - 2.75) in this group was adjusted for age, sex, ethnicity, household income, smoking status, alcohol intake, obesity, osteoporosis history, cataract surgery, glaucoma, hypertension, stroke, heart disease, and hyperlipidemia.

The association was strongest in older people, with an adjusted OR of 2.63 (95% CI, 1.52 - 4.54) for those aged 68 years and older. In fact, there was no association between AMD diagnosis and calcium intake in participants younger than 68 years. The average age of participants with AMD in this study was 67.2 years compared with 55.8 years for those without an AMD diagnosis.

The authors report several limitations to the study, including the possibility of inaccurate reporting of calcium intake by study participants, as well as the absence of a strong correlation between supplements and serum calcium levels. In addition, the authors write, the study relied only on reports of calcium supplement and antacid intake and did not account for dietary calcium.

Dr Khurana also cautioned that clinicians should not change prescribing habits as a result of this research until further studies are done. Patients should, however, avoid smoking and have a diet rich in dark green vegetables and fish, he added.

The authors and the commenter have disclosed no relevant financial relationships.

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