

Adverse association identified for calcium channel blocker use, glaucoma

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There is an adverse association between calcium channel blocker (CCB)

use and glaucoma, according to a study published online Sept. 7 in *JAMA Ophthalmology*.

Alan Kastner, M.D., from Moorfields Eye Hospital National Health Service Foundation Trust and University College London, and colleagues examined the association between systemic CCB use and [glaucoma](#) and related traits in a population-based cross-sectional study involving U.K. Biobank participants with complete data for analysis of glaucoma status, [intraocular pressure](#) (IOP), and optical coherence tomography-derived inner retinal layer thicknesses. Data were included for 427,480 adults ([median age](#), 58 years), including 33,175 CCB users (7.8 percent).

The researchers found that use of CCBs, but not other antihypertensive agents, was associated with increased odds of glaucoma after adjustment for key sociodemographic, medical, anthropometric, and lifestyle factors (odds ratio, 1.39). CCB use was also associated with thinner macular ganglion cell-inner plexiform layer and macular retinal nerve fiber layer thickness (-0.34 and -0.16 μm , respectively), but not with IOP.

"This cross-sectional study adds further support to an adverse association between CCB use and glaucoma, despite no apparent association with IOP," the authors write. "This warrants further investigation to determine whether the associations are causal and to probe potential underlying biological mechanisms."

Several authors disclosed ties to the pharmaceutical industry.

More information: Alan Kastner et al, Calcium Channel Blocker Use and Associated Glaucoma and Related Traits Among UK Biobank Participants, *JAMA Ophthalmology* (2023). [DOI: 10.1001/jamaophthalmol.2023.3877](#)

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