

Publication

ACE inhibitor use and risk of cataract: a case-control analysis

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Use of ACE inhibitors (ACEIs) has been associated with an increased risk of cataract in a previous observational study in humans. In contrast, ACEIs were associated with beneficial effects on cataract development in experimental studies. We assessed the risk of cataract in relation to exposure to ACEI and other antihypertensive drugs.; This is a case-control study based on data from the UK-based Clinical Practice Research Datalink (CPRD). We included first-time cataract patients aged ≥ 40 years between 1995 and 2015 and an equal number of cataract-free controls. We matched the controls to cases on age, sex, general practice, date of first cataract (ie, index date) and years of history in the CPRD prior to the index date. We assessed the number of prescriptions for ACEI and other antihypertensive drugs in detail and explored the use of single ACEI substances. We performed conditional logistic regression and conducted various sensitivity analyses to test the robustness of our findings. We calculated the risk of cataract associated with previous exposure to ACEI, measured as OR with 95% CIs, and adjusted the multivariable model for body mass index, smoking, diabetes, hypertension, prescriptions of systemic corticosteroids and other antihypertensive drugs.; We identified 206 931 cataract cases and the same number of matched controls. Use of ACEI was not associated with a materially altered risk of cataract compared with non-use of ACEI, neither in the main analysis (OR 1.06, 95% CI 1.04 to 1.08) nor in any of the sensitivity or stratified analyses.; In our large observational study, use of ACEI was not associated with an altered risk of cataract.

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