Antihypertensive medications and fracture risk: Is there an association?

November 21 2016

Further examination of randomized clinical trial data suggests that thiazide diuretics to treat hypertension may be associated with lower risk of hip and pelvic fractures compared with some other antihypertensive medications, according to an article published online by *JAMA Internal Medicine*.

Joshua I. Barzilay, M.D., of Kaiser Permanente of Georgia, Atlanta, and coauthors examined the effects of major classes of blood pressure-lowering medications on the incidence of hospitalization for hip and pelvic fractures.

The authors used Veterans Affairs and Medicare claims data along with data from the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT), a large study that compared different antihypertensive therapies to prevent fatal coronary heart disease or nonfatal heart attacks and other cardiovascular disease outcomes.

The study reports a 21 percent lower risk of hip and pelvic fractures associated with the thiazide-type diuretic chlorthalidone compared with either lisinopril (an angiotensin-converting enzyme inhibitor) or amlodipine (a calcium channel blocker).

The analyses included 22,180 participants followed for up to eight years and, after the trial was completed, 16,622 participants were followed for up to an additional five years because claims data were available for

them. There were 646 hip and pelvic fractures in trial plus post trial follow-up.

In further analyses that include trial and post-trial follow-up, the fracture risk was lower in the chlorthalidone group compared with the other treatment groups, although it was not statistically significant, according to the results. During the post-trial period, the study protocol no longer constrained the choice of blood pressure medication.

The authors note several study limitations including that analyses were conducted after the trial and that the present analyses relied on databases for fracture occurrence rather than medical records.

"The present results of short-term and long-term fracture protection with thiazide antihypertensive therapy compared with other antihypertensive medications strongly recommend use of a thiazide for hypertension treatment in addition to its long track record of cardiovascular protection," the study concludes.

More information: *JAMA Intern Med*. Published online November 21, 2016. DOI: 10.1001/jamainternmed.2016.6821

Provided by The JAMA Network Journals

Citation: Antihypertensive medications and fracture risk: Is there an association? (2016, November 21) retrieved 25 April 2024 from https://medicalxpress.com/news/2016-11-antihypertensive-medications-fracture-association.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.