

High blood pressure medication use by heart failure patients not linked with increased risk of death

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Although observational studies have suggested that losartan, a drug used primarily for the treatment of hypertension, may be associated with an increased risk of death among patients with heart failure compared with other medications in the same class of drugs (angiotensin II receptor blockers [ARBs]), an analysis that included nearly 6,500 patients found that overall, use of losartan was not associated with increased all-cause death or cardiovascular death compared with use of the ARB candesartan, according to a study in the April 11 issue of *JAMA*.

Henrik Svanstrom, M.Sc., of Statens Serum Institut, Copenhagen, Denmark, and colleagues conducted a study to assess whether use of [losartan](#) is associated with increased all-cause mortality in [heart failure patients](#) compared with candesartan. The study, which included data from a nationwide Danish registry, linked individual-level information on hospital contacts, filled prescriptions, and potential confounders (factors that can influence outcomes). Patients ages 45 years and older with first-time hospitalization for heart failure in 1998-2008 were identified from the registry. New users of losartan and candesartan were selected for inclusion in the study cohort. The final study group included 6,479 patients; 2,082 users of candesartan and 4,397 users of losartan.

During follow-up, there were 2,378 deaths in the study population. Among these, 330 occurred during ongoing candesartan use and 1,212 during ongoing losartan use. The researchers found no significantly

increased risk of death associated with use of losartan as compared to candesartan. Also, use of losartan was not significantly associated with an increased risk of [cardiovascular mortality](#) compared with candesartan use.

The authors did find that use of low-dose losartan (12.5 mg) was associated with a more than 2-fold increased risk of mortality as compared with high doses of candesartan (16-32 mg). Treatment with 50 mg of losartan (medium dose) was also associated with a higher mortality risk. However, there was no increased risk associated with use of 100 mg of losartan (high-dose).

The authors write that compared with previous observational studies, "our data provide a more detailed insight into the complexity of the association between losartan use and mortality risk in heart failure."

"This large, nationwide cohort study of patients with [heart failure](#) found no significantly increased risk of all-cause mortality associated with use of losartan as compared with candesartan. Whereas lower doses of losartan were associated with increased mortality risk as compared with higher doses of candesartan, there was a decreasing risk of mortality with increasing losartan dose; and no significantly increased mortality risk was observed when comparing the highest dose of losartan against the highest doses of candesartan. These findings do not support the hypothesis of differential effects of specific ARBs in [patients with heart failure](#)," the researchers conclude.

More information: *JAMA*. 2012;307[14]:1506-1512.

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