

Study Compares Diuretics and Other Treatments for People With Metabolic Syndrome, High Blood Pressure

By Jennifer Warner WebMD Medical News Reviewed by Louise Chang, MD

Jan. 28, 2008 -- Researchers say a new analysis questions the preferred use of certain blood pressure medications over diuretics in people with metabolic syndrome.

The analysis shows thiazide diuretics worked as effectively at treating high blood pressure -- and in some cases better -- than calcium channel blockers, ACE inhibitors, or alpha-blockers in people at high risk for complications from high blood pressure and metabolic syndrome.

The study was published in the Jan. 28 edition of *Archives of Internal Medicine*.

Metabolic syndrome is defined as elevated blood pressure plus at least two other risk factors, such as elevated fasting blood sugar and triglyceride levels. Having metabolic syndrome puts you at increased risk for heart disease and diabetes. Those with high blood pressure who also have metabolic syndrome are at high risk for cardiovascular disease.

Researchers say that because alpha-blockers, ACE inhibitors, and calcium channel blockers are believed to have favorable short-term effects on blood sugar or cholesterol levels, they have been suggested for treating high blood pressure in people with metabolic syndrome over diuretics.

Diuretics for High Blood Pressure

In the study, Jackson T. Wright Jr., MD, PhD, of Case Western Reserve University, and colleagues analyzed the results of a large national study including 42,418 people at least 55 years old with high blood pressure and at least one other risk factor for heart disease.

All participants had high blood pressure and some qualified for metabolic syndrome. Groups were randomly assigned to take a diuretic, calcium channel blocker, alpha-blocker, or an ACE inhibitor. Each high blood pressure medication was used to start treatment, and other drugs could be added if needed to control blood pressure.

The participants were followed for nearly five years, except for the alpha-blocker group, which was discontinued after about three years after higher rates of stroke and heart failure were found compared with those taking diuretics.

Overall, the results show no significant advantage in preventing heart attack or other fatal heart-related complications with the use of calcium channel blockers, alpha-blockers, or ACE inhibitors over thiazide diuretics in participants with high blood pressure and metabolic syndrome. This was especially evident among African-American participants.

"These findings fail to provide support for the selection of alpha-blockers, ACE

inhibitors, or calcium channel blockers over thiazide-type diuretics" to prevent cardiovascular problems in patients with metabolic syndrome, the researchers conclude.