

New blood pressure medication has fewer side effects: Global study

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A major Canadian-led global study has found that a new blood pressure medication is effective in reducing cardiovascular death, with fewer side effects than the current standard of care.

The study found a new drug telmisartan is as effective as the popular drug ramipril in reducing cardiovascular death in high risk patients and it has fewer side effects.

Dr. Salim Yusuf, director of the Population Health Research Institute at McMaster University and Hamilton Health Sciences and principal investigator of the study, presented the results of ONTARGET today at the American College of Cardiology conference. The paper has also been published on-line by the New England Journal of Medicine.

Previous studies such as the Heart Outcomes Prevention Evaluation Trial (HOPE) demonstrated that angiotensin converting enzyme (ACE) inhibitors such as ramipril reduce cardiovascular death, myocardial infarction, strokes and heart failure in high risk individuals, however, a significant proportion (about 20 percent) of patients are unable to tolerate an ACE-inhibitor due side effects such as coughing, hypotension or swelling.

An alternate therapy, telmisartan, which is an angiotensin II receptor blocker, proved to be at least as effective and better tolerated, offering clinicians and patients an important alternative.

“This study is of clinical importance because it demonstrates that telmisartan is an effective and safe alternative to ramipril. This means both patients and physicians have choices and can use telmisartan where appropriate with a high degree of confidence,” said Yusuf, a professor of the Michael G. DeGroote School of Medicine at McMaster. Dr. Yusuf is also vice-president of research and chief scientific officer at Hamilton Health Sciences.

Investigators from 733 centers in 40 countries collaborated in conducting the ONTARGET study, which enrolled 25,620 patients with coronary heart disease or diabetes plus additional risk factors and were over the age of 55 years of age, but did not have evidence of heart failure. Patients were randomized to receive ramipril 10-mg a day, telmisartan 18-mg a day or the combination of the two. The mean duration of follow-up of the study was 55 months.

Telmisartan and ramipril were found to be equally effective but telmisartan was better tolerated than ramipril with the chief differences being lower rates of coughing and lower rates of angioneurotic edema (a life-threatening swelling of the throat and airways). There was a small excess of minor symptoms related to hypotension such as dizziness with telmisartan.

“All people who have cardiovascular disease or diabetes with organ target damage and physicians managing these diseases should be interested in the results of this important trial,” said Dr. Gilles Dagenais, cardiologist at the Laval University Heart and Lung Institute, Quebec City, and one of the Canadian national co-ordinators of the ONTARGET trial. “If it’s possible to have access to a medication that can prevent serious cardiovascular events but with fewer side effects and better compliance than what’s currently available, it will also have a great impact on their quality of life.”

Dr. Koon Teo, professor of medicine at McMaster University and head of clinical trials in the Population Health Research Institute at Hamilton Health Sciences, said: “The ONTARGET trial is very important because it addresses the question of how we can best prevent heart attack, stroke, heart failure, cardiovascular death and other outcomes such as diabetes. These conditions affect millions of people around the world and if we can find a better treatment that improves these outcomes we’re doing a lot of good.”

Surprisingly, combination therapy did not offer any additional benefit but was associated with a higher rate of hypotension related side effects including fainting. There was also an increase in discontinuations for hyperkalemia (high potassium levels).

Source: McMaster University

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