

Calcium Antagonists Help Control Blood Pressure

A massive study aimed at settling the long-standing debate over the usefulness of calcium antagonists for treating high blood pressure has shown the drugs are part of a safe and effective regimen for patients who don't respond to standard medicines — or who stop taking them because of bothersome side effects, University of Florida researchers report.

The news likely will help physicians better customize therapy for hypertensive patients who also have coronary artery disease, particularly those at high risk of heart attack, stroke or death. Preliminary findings also indicated a calcium antagonist strategy, compared with traditional therapy using beta-blockers and diuretics, prevents diabetes in these patients.

“Now there's an alternative to what's considered the standard of care,” said Dr. Carl J. Pepine, the study's principal investigator and chief of cardiovascular medicine at UF's College of Medicine. “The big problem with hypertension is treatment and compliance with treatment. Surveys show that perhaps only 30 percent or less of the patients in the United States who are known to be hypertensive are on treatment and even a smaller percentage are at blood pressure goal for their treatment. It is

believed that an important reason for that is the inability to tolerate the treatments. So here we have an alternative treatment strategy that appears to be just as good in terms of preventing adverse outcomes and maybe even better in terms of preventing the emergence of new diabetes cases.”

Pepine, the newly installed president of the American College of Cardiology, or ACC, announced the results of the landmark International Verapamil SR-Trandolapril study, funded by Abbott Laboratories and known as INVEST, at the ACC's 52nd annual Scientific Session in Chicago last spring.

More than 50 million Americans have high blood pressure, according to the American Heart Association. Elevated blood pressure is associated with up to half of all cases of coronary artery disease, the No. 1 killer of men and women in the United States.

“We're seeing huge numbers of patients with coronary artery disease and hypertension as our population ages,” Pepine said. “The question we ask now is how is their blood pressure best managed? The literature up until the completion of our study was relatively void of evidence-based data in terms of what's best for controlling blood pressure in this population.”

Physicians have used calcium antagonists to treat heart-related ailments for more than two decades. Studies have shown calcium antagonists and beta-blockers are of similar benefit for patients with the chest pain known as stable angina pectoris. But beta-blockers have been better for those who have suffered a heart attack.

In the INVEST study, UF researchers tracked more than 22,500 patients for two to five years to determine whether a high blood pressure treatment strategy that included the calcium antagonist verapamil was at least as effective as beta-blockers and diuretics at lowering blood pressure below 130/85. Patients at 862 sites around the world were randomly assigned to one of the two treatment strategies.

Scientists also were intrigued to learn new cases of diabetes occurred less frequently among those assigned to the calcium antagonist regimen. Many heart disease patients with high blood pressure are at greatly increased risk of developing diabetes, which is rapidly nearing epidemic rates in the United States. Preventing diabetes would have tremendous public health implications, Pepine said, and could greatly reduce related health-care costs.

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