Medical Xpress

Researcher urge caution in reducing blood pressure in patients with diabetes, coronary disease

March 14 2010

For patients with diabetes and heart disease, less isn't always more — at least when it comes to blood pressure.

New data show an increased risk of heart attack, stroke or death for patients having blood pressure deemed too high — or too low, according to Rhonda Cooper-DeHoff, Pharm.D., an associate professor of pharmacy and medicine at UF. She reported her findings today (Sunday, March 14) at the American College of Cardiology's 59th annual scientific session in Atlanta.

She recommends raising the systolic bar above 120 for blood pressure in patients with diabetes and coronary artery disease, saying that levels between 130 and 140 appear to be the most healthful.

Based on hypertension treatment guidelines, health-care practitioners have assumed that with regard to blood pressure, "the lower, the better," Cooper-DeHoff said. But, The International Verapamil SR-Trandolapril study, known as INVEST, suggests that the range considered normal for healthy Americans may actually be risky for those with a combined diagnosis of diabetes and coronary artery disease.

"Our data suggest that in patients with both diabetes and coronary artery disease, there is a blood pressure threshold below which cardiovascular risk increases," Cooper-DeHoff said.

As many as two out of three adults with diabetes have high blood pressure. Normal blood pressure as defined by the American Heart Association is less than 120 systolic and less than 80 diastolic. Blood pressure greater than 140 is still associated with a nearly 50 percent increase in cardiovascular risk in patients with diabetes. But efforts to reduce systolic blood pressure to below 130 did not appear to offer any additional benefit to diabetics with coronary artery disease compared with reduction of systolic blood pressure to between 130 and less than 140.

Cooper-DeHoff's study reveals for the first time that this group of patients also had a similar increase in risk when their blood pressure was controlled to lower than 115 systolic — the range recommended as normal by the American Heart Association.

Stephan Brietzke, M.D., an endocrinologist who did not participate in the research, was intrigued by the findings, saying that they parallel recent studies looking at blood sugar control, which suggest a U-shaped curve with higher cardiovascular risks at both "too high" and "too low" extremes.

Brietzke, an associate professor of clinical medicine at the University of Missouri-Columbia since 2002, led a multidisciplinary team that developed Veterans Health Administration and Department of Defense collaborative guidelines for the treatment of type 2 diabetes. He sees this as an important study for doctors treating patients with diabetes and cardiovascular disease.

"Identifying thresholds of when to initiate treatment, and when to say 'good enough,' is extremely important not only to optimize patient outcomes, but also to help reduce unnecessary costs of care," Brietzke said.

The AHA reports that heart disease or stroke is the top cause of death for people with diabetes, affecting more than 60 percent of patients. High blood pressure, common in diabetes, doubles the risk of cardiovascular disease.

Provided by University of Florida

Citation: Researcher urge caution in reducing blood pressure in patients with diabetes, coronary disease (2010, March 14) retrieved 25 April 2024 from https://medicalxpress.com/news/2010-03-urge-caution-blood-pressure-patients.html

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