Chinese Study Finds No Blood Pressure J-Curve

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SAN ANTONIO — Among patients with known cardiovascular disease, there is no J-shaped association between blood pressure and either future cardiovascular events or all-cause mortality, new data suggest.

"These data indicate there is a strong, independent, and direct association between blood pressure and mortality among men and women with a history of cardiovascular disease," Dr. Jing Chen said at a meeting of the American Heart Association Council for High Blood Pressure Research. The findings support a lower blood pressure goal in patients with cardiovascular disease in order to reduce mortality.

The J-curve concept—the notion that driving blood pressures lower is beneficial only to a certain point, after which mortality climbs again—has a lengthy history. After years of debate, a consensus emerged that the J-curve does not exist in the general population. But some recent reports suggest that the J-curve applies to patients with cardiovascular disease, said Dr. Chen of Tulane University, New Orleans.

The China National Hypertension Survey Epidemiology Study enrolled 158,666 participants aged 15 years or older in 1991, includin 2,251 men and 1,941 women with a baseline history of coronary heart disease or stroke. At follow-up during 1999-2000, blood pressure was a directly associated with cardiovascular mortality in the subgroup having baseline cardiovascular disease—no J-curve.

Compared with normotensive men with a cardiovascular disease, those with prehypertension had an 18% greater adjusted risk of cardiovascular death. Prehypertensive women had a 21% increase. Men and women with stage 1 hypertension had risk increases of 24% and 62%. Cardiovascular mortality was 71% higher in men with stage 2 hypertension and 72% higher in women with stage 2 hypertension. ■