

Early Aggressive Treatment of Hypertension

Prof. Chen-Huan Chen

Department of Internal Medicine, Taipei Veterans General Hospital, Taiwan

Although excessive reduction in diastolic pressure should be avoided in patients with coronary artery disease who are being treated for hypertension, recent randomized trial results indicate that hypertension should be treated early and aggressively.

A secondary analysis of data from the International Verapamil-Trandolapril Study (INVEST) involving 22 576 patients with hypertension and coronary artery disease, The relationship between blood pressure and the primary outcome, all-cause death, and total MI was J-shaped, particularly for diastolic pressure, with a nadir at 119/84 mm Hg.

Prehypertension is considered a precursor of stage 1 hypertension and a predictor of excessive cardiovascular risk. Treatment of prehypertension with candesartan in 409 such patients appeared to be well tolerated and reduced the risk of incident hypertension as compared to 400 patients receiving placebo over a period of four years.

In the Losartan Intervention For Endpoint reduction in hypertension (LIFE) study involving 9193 patients with essential hypertension and left ventricular hypertrophy ascertained by electrocardiography, losartan-based treatment prevents more cardiovascular morbidity and death than atenolol-based treatment. Although losartan seems to have benefits beyond blood pressure reduction, losartan-based treatment appears to more potent blood pressure lowering effect than atenolol-based treatment.

In the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA) involving 19257 patients with hypertension and at least three other cardiovascular risk factors, the amlodipine-based regimen prevented more major cardiovascular events and induced less diabetes than the atenolol-based regimen. The amlodipine-based regimen was more effective in lowering blood pressure, especially the central blood pressure, than the atenolol-based regimen.

Both LIFE and ASCOT studies consistently show that more potent blood pressure lower regimens are associated with more favorable clinical outcomes. In summary, early treatment of prehypertension is feasible, and aggressive treatment of established hypertension to recommended targets is appropriate, with precaution in patients with hypertension and coronary artery disease.