

Ability to Control Blood Pressure and Choice of Antihypertensive Impact Development and Course of Comorbid Disease

Blood pressure control is difficult to achieve in patients with concomitant hypertension and type 2 diabetes. “Blood pressure control is paramount in this high-risk population and

can reduce cardiovascular events (heart disease and stroke) by approximately 33% to 50% and microvascular disease (eye, kidney, nerve disease) by nearly 33%,” according to Dong-Churl Suh, PharmD, from Ernest Mario School of Pharmacy at Rutgers University in Piscataway, New Jersey. “Furthermore, every 10-mm Hg reduction in systolic blood pressure is associated with a 12% decrease in diabetes-related complications.”

Research by Dr Suh found that 3 of 4 patients with both hypertension and diabetes do not achieve blood pressure control (ASH 2006, Abstract P345). He used data from the Third

National Health and Nutrition Examination Survey (NHANES III, 1988-1994) and NHANES 1999-2002 to identify 15.4 million persons with comorbid hypertension and type 2 diabetes. Although the blood pressure control rate (<130/80 mm Hg) increased over time, it

Achieving blood pressure control often requires multiple agents, especially in persons with comorbid diabetes.

was only 23.1% during the 1999-2002 NHANES. Some 35.6% of patients with comorbid hypertension and diabetes did not report receiving current treatment with an antihypertensive agent during NHANES 1999-2002. Achieving blood pressure control often requires multiple agents, especially in persons with comorbid diabetes, he reminded. The approximate number of agents required to achieve goal blood pressure in clinical trials has been 2 to 3, increasing to 3 to 4 for patients

with diabetes with >1 mg/day of proteinuria.

The development of incident diabetes in patients with hypertension may be influenced by choice of initial antihypertensive therapy. Derek Weycker, PhD, from Policy Analysis Inc, shared his findings that patients with hypertension initiating treatment with valsartan were less likely to develop diabetes than those who initiated treatment with amlodipine (ASH 2006. Abstract P229).

His study included 9999 patients with hypertension started on valsartan and 18 698 started on amlodipine, all of whom did not have diabetes at baseline. At a mean follow-up of 407 days, 2.4% of patients taking valsartan developed diabetes. By comparison, 3.3% of patients taking amlodipine developed diabetes over a mean follow-up of 460 days. The 1-year unadjusted risk of diabetes was 2.4% for valsartan versus 2.9% for amlodipine; at the end of 3 years, the corresponding risks were 5.6% and 6.8%, respectively. Compared with amlodipine, valsartan recipients had a 21% adjusted lower risk of developing diabetes ($P < .01$).