

Reducing Blood Pressure Cuts Deaths Due to AF

BY MIRIAM E. TUCKER

Diabetic patients with atrial fibrillation obtained greater absolute benefits from blood pressure-lowering treatment than did those without in a study of more than 11,000 patients with type 2 diabetes.

The findings suggest that an estimated 5 years of active blood pressure-lowering treatment would prevent one cardiovascular death among every 42 patients with atrial fibrillation (AF) at baseline, compared with one death among 120 patients without AF. "These findings are of direct relevance for the routine clinical management of diabetic patients and indicate that detection of AF

cardiovascular death. The association between AF and cardiovascular death was significantly stronger in women compared with men, while the associations between AF and total mortality, coronary events, and cerebrovascular events were also stronger for women but not significantly so, the investigators said.

During follow-up, active treatment with a fixed combination of perindopril and indapamide reduced blood pressure

by 5.3/2.3 mm Hg more than did placebo in those with AF and by 5.9/2.3 mm Hg more in patients without AF. The active treatment produced similar relative reductions in all-cause mortality and cardiovascular mortality in patients with and without AF, but the absolute benefit was greater for those with AF because their baseline risk was higher, the researchers said.

New-onset AF was identified in 3.3% of

patients randomized to active treatment and in 3.6% of those who received placebo, but there was limited power to evaluate the effects of the combined treatment on new-onset AF during follow-up.

The study highlights the importance of actively evaluating diabetic patients for AF, said the authors, several of whom other than Dr. Du have received lecture fees or grant support from, or served on an advisory board for, Servier. ■

The findings indicate that the detection of atrial fibrillation in a patient with diabetes 'should prompt more aggressive treatment of all cardiovascular risk factors.'

in a patient with diabetes should prompt more aggressive treatment of all cardiovascular risk factors," said Dr. Xin Du of the University of Sydney, and associates (*Eur. Heart J.* 2009 March 12 [doi:10.1093/eurheartj/ehp055]).

AF was present at baseline in 847 (7.6%) of the 11,140 patients with type 2 diabetes in the Action in Diabetes and Vascular Disease: preterAx and diamicron-MR Controlled Evaluation (ADVANCE) study, jointly funded by the National Health and Medical Research Council of Australia and Servier, France. Measured outcomes were all-cause mortality cardiovascular death, myocardial infarction, stroke, and heart failure.

Patients with AF were older and heavier, had higher blood pressure levels and urinary albumin-creatinine ratios, and had lower estimated glomerular filtration rates than did the patients without AF. They also were more likely to be taking antiplatelet therapy and were less likely to be current smokers.

Over a mean follow-up of 4.3 years (range less than 1 month to 5.6 years), 879 patients died. Of those deaths, 468 (53%) were due to cardiovascular causes and 15% of the total deaths occurred in patients with AF. Patients with AF at baseline had significantly higher rates of all-cause and cardiovascular mortality, at 3.9% and 2.4%, respectively, than did those without AF, whose all-cause and cardiovascular mortality rates were 1.7% and 0.9%, respectively. After adjustment for covariates, those hazard ratios were 1.61 and 1.77, respectively. Patients with AF had higher risk of major cerebrovascular events, with a hazard ratio of 1.68 that was similar for ischemic and hemorrhagic subtypes.

Among patients who were on oral anticoagulants at baseline, the adjusted hazard ratios associated with AF were 2.16 for all-cause mortality and 2.32 for



Mealtime therapy matters inside the body.

Humalog (insulin lispro injection [rDNA origin]) is for use in patients with diabetes mellitus for the control of hyperglycemia. Humalog should be used with longer-acting insulin, except when used in combination with sulfonylureas in patients with type 2 diabetes.

Humalog is contraindicated during episodes of hypoglycemia and in patients sensitive to Humalog or one of its excipients.

Important Safety Information

Humalog differs from regular human insulin by its rapid onset of action as well as a shorter duration of action. Therefore, when used as a mealtime insulin, Humalog should be given within 15 minutes before or immediately after a meal. Due to the short duration of action of Humalog, patients with type 1 diabetes also require a longer-acting insulin to maintain glucose control (except when using an insulin pump). Glucose monitoring is recommended for all patients with diabetes.

The safety and effectiveness of Humalog in patients less than 3 years of age have not been established. There are no adequate and well-controlled clinical studies of the use of Humalog in pregnant or nursing women.

Starting or changing insulin therapy should be done cautiously and only under medical supervision.

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Hypoglycemia

Hypoglycemia is the most common adverse effect associated with insulins, including Humalog. Hypoglycemia can happen suddenly, and symptoms may be different for each person and may change from time to time. Severe hypoglycemia can cause seizures and may be life-threatening.

Other Side Effects

Other potential side effects associated with the use of insulins include: hypokalemia, weight gain, lipodystrophy, and hypersensitivity. Systemic allergy is less common, but may be life-threatening. Because of the difference in action of Humalog, care should be taken in patients in whom hypoglycemia or hypokalemia may be clinically relevant (eg, those who are fasting, have autonomic neuropathy or renal impairment, are using potassium-lowering drugs, or taking drugs sensitive to serum potassium level).

Please see reverse side for Brief Summary of full Prescribing Information.

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