# Reduced Blood Pressure May Cut AF Deaths

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 study 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 … indicate that detection of AF 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]).

Atrial fibrillation (AF) was present at baseline in 847 (7.6%) of the 11,140 patients with type 2 diabetes who participated in the Action in Diabetes and Vascular Disease: preterAx and diamicroN-MR Controlled Evaluation (ADVANCE) study, which was jointly funded by the National Health and Medical Research Council of Australia and Servier, France.

The 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 patients without AF.

Over a mean follow-up of 4.3 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 both all-cause and cardiovascular mortality, at 3.9% and 2.4%, respectively, than did those who did not have 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.

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 cardiovascular death. The association between AF and cardiovascular death was significantly stronger in women compared with men, 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 than placebo in patients without AF, the researchers said.

This study "highlights the importance of actively evaluating diabetic patients for the presence of AF to identify those at particularly high risk of cardiovascular events," 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. ■

# *Glycemic Control: How Low Should You Go?*

BY SHERRY BOSCHERT

SAN FRANCISCO — Despite results from five major studies showing the effects of intensive glycemic control in patients with diabetes, the question remains: How low should one go?

Dr. Elizabeth J. Murphy distilled the data into a simple prescription for clinicians at a meeting on diabetes and endocrinology sponsored by the University of California, San Francisco.

For most patients with diabetes, aiming for a glycosylated hemoglobin ($HbA_{1c}$) level below 7% "is still a very good goal," said Dr. Murphy, chief of endocrinology at San Francisco General Hospital. Consider striving for lower $HbA_{1c}$ targets in younger, healthier, newly diagnosed patients "where you haven't seen adverse events. We know that in that population we can do the most to prevent the sequelae" of the disease, she added.

For patients who are expected to live less than 5 years or who have severe hypoglycemia, advanced complications, or other significant comorbid conditions, "higher targets like 8% might be appropriate," Dr. Murphy said.

A 2009 position statement by the American Diabetes Association, American Heart Association, and American College of Cardiology reached similar conclusions in its interpretation of the recent data (Diabetes Care 2009;32:187-

92). The position statement "is a long way of saying that we don't change anything," Dr. Murphy said.

The new data and the joint position statement by the three groups were not enough to convince the American Association of Clinical Endocrinologists to modify its recommendation to aim for an $HbA_{1c}$ level below 6.5% in most patients, "but I still feel that less than 7%, given the data we have, is what we should stick with," said Dr. Murphy, who based her advice on five key trials:

► 10-year follow-up of patients in the United Kingdom Prospective Diabetes Study (UKPDS) (N. Engl. J. Med. 2008;359:1577-89).

► Action to Control Cardiovascular Risk in Diabetes (ACCORD) study (N. Engl. J. Med. 2008;358:2545-59).

► Action in Diabetes and Vascular Disease: Preterax and Diamicron Modified Release Controlled Evaluation (ADVANCE) trial (N. Engl. J. Med. 2008;358:2560-72).

► Veterans Affairs Diabetes Trial (VADT) (N. Engl. J. Med. 2009;360:129-39).

► The Steno-2 trial from the Steno Diabetes Center in Copenhagen (N. Engl. J. Med. 2008;358:580-91).

All of the data, with the possible exception of VADT, suggest that lower $HbA_{1c}$ levels are better for preventing the microvascular complications of diabetes. To prevent macrovascular complications, the benefits of glycemic control are small in comparison to managing hypertension and dyslipidemia, which play far larger roles in morbidity and mortality.

"I hate to say this as an endocrinologist, but blood pressure control is much more important than glycemic control," especially in patients with type 2 diabetes, she said, but "in type 1 diabetes that might not be the case."

Aggressive treatment in the early stages of diabetes has long-lasting microvascular and macrovascular benefits, the data show, but aggressive blood pressure lowering must be continued to maintain the benefits.

Some of these major studies are ongoing, and "we will have to await longer follow-up" for a better picture of the relationship between $HbA_{1c}$ levels and cardiovascular complications, Dr. Murphy said.

She has been a consultant for Daiichi Sankyo Co., which markets drug therapies for diabetes. ■