Diabetes Increases Atrial Fibrillation Risk by 18%

BY MITCHEL L. ZOLER

BOSTON — Patients with diabetes have both a higher prevalence and incidence of atrial fibrillation, based on a case-control study with nearly 35,000 patients.

"The prevalence of atrial fibrillation [AF] is more than 40% higher in patients with diabetes, and the incidence of AF was nearly 40% higher," Gregory A. Nichols, Ph.D., said at the Heart Rhythm Society's annual meeting. "After accounting for other risk factors, diabetes increased the risk for AF by 18%," a statistically significant effect, said Dr. Nichols, a diabetes researcher at the Kaiser Permanente Center for Health Research in Portland, Ore.

The findings also showed that while women had a lower absolute risk for AF than did men, having diabetes led to a larger increase in their relative risk than it did in men, suggesting that the finding has particular public health importance in women, Dr. Nichols said.

Physicians "should be more aggressive about screening to detect AF and treating it early" in patients with diabetes because early detection and treatment may help reduce the risk from AF, said Dr. Melvin Scheinman, a professor and cardiac electrophysiologist at the University of California, San Francisco.

The study included 17,372 men and women with diabetes who were patients at Kaiser Permanente Northwest, a large health maintenance organization based in the Portland area. Also included were an equal number of age- and gender-matched people from the HMO who did not have diabetes. The study included patients with diabetes who entered the HMO's diabetes registry by December 2004, and they were followed through December 2008. Follow-up lasted an average of 7 years.

The average age of all patients was 58, and 51% were men. The group with diabetes had significantly higher rates of hypertension and heart failure, as well as a higher average body mass index and other markers of cardiovascular risk.

The prevalence of AF at entry into the registry or at a comparable time for the controls was 2.5% in people without diabetes and 3.6% in those with diabetes, a 44% increased risk from diabetes that was statistically significant.

Having diabetes led to a larger increase in women's relative risk for AF than it did in men.

DR. NICHOLS

The impact of diabetes on boosting the prevalence of AF was especially strong in younger people. Among those aged 55-64, the prevalence of AF was 1.6% in those without diabetes and 3.0% in those with diabetes, an 88% relative difference.

Diabetes also had a stronger effect on AF prevalence in women. The prevalence in all women was 1.8% in those without diabetes and 3.2% in patients with diabetes, a 78% increased risk. In contrast, among all men the rate was 3.3% in those without diabetes and 4.0% in patients with diabetes, a 21% relative increase.

In women aged 55-64, prevalence was 1.0% in those without diabetes and 2.7% in women with diabetes, a 170% relative increase. In women aged 65-74, the rate was 2.8% without diabetes and 6.7% with diabetes, a 139% relative increase.

During follow-up, the incidence of new cases of AF was 6.6 cases/1,000 patient-years in those without diabetes and 9.1 cases/1000 patient-years for those with diabetes, a 38% relative increased rate linked with diabetes.

Again, the impact of diabetes on the rate of new cases was greater in women than in men, with the incidence rate relatively 46% higher in women with diabetes compared with women without diabetes, and an incidence that was relatively 31% higher in men with diabetes compared with men without diabetes.

In a multivariate analysis that controlled for other AF risk factors, diabetes was linked with a significant, 18% increased risk for new onset AF, Dr. Nichols said. ■