

# Atrial Fibrillation Undertreatment Nearly Doubles Embolic Event Risk

BY BRUCE JANCIN  
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BARCELONA — Undertreatment of atrial fibrillation patients with respect to international guideline-recommended stroke prophylaxis is disturbingly common in real-world clinical practice—and the consequences show up in markedly increased thromboembolic event rates, compared with patients treated in accord with the guidelines, Dr. Robby Nieuwlaat said at a joint meeting of the European Society of Cardiology and the World Heart Federation.

Overtreatment of patients with atrial fibrillation is considerably less common than undertreatment. And unlike the case in undertreated patients, there really is no price associated with overtreatment. The risk of major bleeding in overtreated patients is not significantly greater than in those on appropriate antithrombotic treatment as defined by the guidelines, according to Dr. Nieuwlaat, professor of cardiology at University Hospital Maastricht, the Netherlands.

These were among the key findings of the Euro Heart Survey on atrial fibrillation. The survey, conducted by the European Society of Cardiology, included 4,086 patients with atrial fibrillation enrolled in 35 countries during 2003-2004 for whom complete 1-year follow-up data were available. Their management was compared with that recommended in the then-current

2001 American College of Cardiology/American Heart Association/European Society of Cardiology atrial fibrillation management guidelines. Those guidelines were recently updated (J. Am. Coll. Cardiol. 2006;48:854-906).

As defined in the guidelines, 89% of participants were classified as being at high or highest thromboembolic risk. Dr. Nieuwlaat and his coinvestigators defined undertreatment as failure to prescribe warfarin in high-risk patients without bleed-



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DR. NIEUWLAAT

ing risk factors or not prescribing antiplatelet therapy in intermediate-risk patients. Overtreatment was defined as using warfarin in patients at low or intermediate risk for thromboembolism.

In a multivariate analysis, undertreated patients had an adjusted 42% increased risk of stroke during 1 year of follow-up, compared with patients receiving guideline-adherent stroke prophylaxis, and a 97% increased relative risk of any systemic thromboembolic event. In contrast, overtreated patients had a 34% reduction in stroke risk and 15% decreased risk of any thromboembolism relative to appropriately treated patients.

The incidence of intracranial hemorrhage was 0.1% in undertreated, 0.4% in appropriately treated, and 0.3% in overtreated patients.

Undertreated patients had 11% less relative risk of major bleeding than did appropriately treated patients. But their combined rate of cardiovascular death, any thromboembolism, or major bleeding was 54% greater than in patients managed in accord with the guidelines. The 15% increased risk of the combined end point observed in overtreated patients didn't attain statistical significance.

Dr. Nieuwlaat said the study's clinical implications are clear: "Risk for stroke should outweigh fear of bleeding. Stroke rates are much higher than bleeding rates." Physicians should deny oral anticoagulation in patients at high risk for thromboembolism only if they are also at high risk for intracranial hemorrhage or have other strong risk factors for major bleeding, he added.

Session cochair Dr. Andreas Götte called the 26% rate of undertreatment found in the Euro Heart Survey "really alarming," particularly in light of evidence obtained through the survey that undertreatment virtually doubled thromboembolic event risk.

"This is a very important message we can get only from these registry studies. We really need huge registries like the Euro Heart Survey to make clear how our treatments work in real life in the general community," observed Dr. Götte of Otto-von-Guericke University, Magdeburg, Germany. ■

# Metabolic Syndrome Ups AFib, Stroke Risk

BY MITCHEL L. ZOLER  
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BARCELONA — Patients with metabolic syndrome have an increased risk of developing atrial fibrillation compared with patients with a single risk factor for cardiovascular disease, based on an analysis of more than 13,000 patients.

Metabolic syndrome also boosted the risk of stroke in patients with atrial fibrillation (AF) compared with patients with AF and a single cardiovascular-disease risk factor, Dr. Leonardo Tamariz and his associates reported in a poster at a joint meeting of the European Society of Cardiology and the World Heart Federation.

The study analyzed data for 13,200 patients with AF who were drawn from the records of more than 380,000 patients insured through Humana Inc. in the United States and who were diagnosed with at least one cardiovascular risk factor during January 2003–May 2004. The included risk factors were hypertension, obesity, diabetes, and lipid abnormalities. Patients are diagnosed with metabolic syndrome if they have three or more of these risk factors.

The prevalence of AF was significantly linked to the number of risk factors that patients had. In a multivariate analysis that controlled for age, gender, coronary artery disease, and heart failure, patients with all four risk factors were 40% more likely to have AF compared with patients with one risk factor, reported Dr. Tamariz, an internal medicine physician at the University of Miami. The prevalence of AF in patients with three risk factors was not significantly higher than in patients with one risk factor.

Patients with metabolic syndrome also developed AF at a younger age. Among patients with a single cardiovascular disease risk factor, the average age of patients with AF was 73 years. Patients with two risk factors developed AF at an average age of 71 years, those with three risk factors had AF at age 67 years, and those with four risk factors and AF had an average age of 60 years.

In a multivariate analysis that controlled for age, gender, coronary artery disease, and heart failure, patients with three risk factors had the highest stroke prevalence, 2.8-fold higher than patients with a single risk factor. The adjusted prevalence of stroke in patients with four risk factors was slightly lower: 2.2-fold higher than in patients with a single risk factor. ■

# Hypertension Doubles Female Sexual Dysfunction Prevalence

BY MITCHEL L. ZOLER  
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NEW YORK — Women with hypertension were twice as likely to have sexual dysfunction as normotensive women were, in a study of 417 women.

The results also showed that women with controlled hypertension had a significantly lower prevalence of sexual dysfunction than did women whose hypertension failed to reach goal levels during treatment, Dr. Michael Doumas reported at the annual meeting of the American Society of Hypertension.

But a third finding was that women who were treated with antihypertensive drugs had a higher prevalence of sexual dysfunction than did untreated women. Dr. Doumas speculated that this was caused by the effects of certain antihypertensive drugs, such

as diuretics and  $\beta$ -blockers. Treatment with other drug types, the angiotensin-receptor blockers and angiotensin-converting enzyme inhibitors, appeared to reduce sexual dysfunction, he said.

"We need to treat hypertension because of its effect on adverse cardiac outcomes. But there is a hint that we can lower blood pressure with some drugs and also have good effects on female sexual function," said Dr. Doumas, a physician in the department of internal medicine at the Hospital of Alexandroupolis in Athens.

The study enrolled 216 women with hypertension and 201 normotensive women. Their average age overall was about 48, and all were sexually active.

The women completed a 19-question form that has

been validated as a way to evaluate sexual function. The questions dealt with several domains of female sexual function: desire, arousal, lubrication, orgasm, satisfaction, and pain.

Among the women with hy-

pertension, 42% had scores indicating sexual dysfunction, compared with 19% among the normotensives, which was a statistically significant difference.

The prevalence of sexual dysfunction increased significantly with the duration of hypertension. Among women who had been hypertensive for fewer than 3 years, 16% had a score indicating sexual dysfunction; the rate rose to 33% among women with hypertension for 3-6 years and 79% among women with hypertension for more than 6 years.

Age also showed a significant interaction with prevalence. Among women aged 31-40 years, the prevalence of dysfunction was 21%; the rate rose to 38% among women aged 41-50 and to 57% among women

who were older than 50 years.

The prevalence of sexual dysfunction was 48% among women treated for hypertension, compared with 33% among the untreated hypertensives, a significant difference. The average age was 48 years in both groups.

But the prevalence was lower still among the hypertensive women who had their pressure controlled by treatment. With control defined as a pressure of less than 140/90 mm Hg, the prevalence of sexual dysfunction in women with controlled hypertension was 27%, significantly less than the 51% of women with uncontrolled hypertension who had dysfunction.

It's not yet known how antihypertensive drugs exert differing effects on sexual function. In general, drugs that cause vasodilation appear to improve sexual dysfunction, Dr. Doumas said. ■

