New Guidelines Tackle Postsurgical Atrial Fib

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

β-Blockers should be the first choice to control both rhythm and rate in patients experiencing atrial fibrillation after cardiac surgery; the drug class is also useful for preventing postoperative atrial fibrillation, according to new clinical practice guidelines issued by the American College of Chest Physicians.

The drugs' value stems from their antiadrenergic effect, said Peter McKeown, M.B., a member of the panel that authored the guidelines. "This counteracts the proadrenergic state patients experience after surgery, which can lead to atrial fibrillation," he said. Bolstering the recommendation is the fact that many cardiac surgery patients are already on the drugs, which should not be discontinued before surgery.

Post–cardiac surgery AF 'is a situation that has a temporal relationship to a very specific event, and should not be viewed as an ongoing event.'

"We should be putting them on β-blockers if they're not already on them, and keeping them on if they are," Dr. McKeown said in an interview.

The panel, which included members of ACCP, the American College of Cardiology, the American College of Surgeons, the Society of Thoracic Surgeons, and the Society of Cardiovascular Anesthesiologists, also concluded that digoxin is contraindicated in these patients because it heightens postoperative adrenergic tone (Chest 2005;128:S1-S64).

Amiodarone was recommended for controlling rhythm in patients with postoperative AF and depressed left ventricular function, added Dr. McKeown of Duke University, Durham, N.C.

"A lot of the other drugs you hear about were not recommended because of their potential for rhythm disturbances, or because they are not suitable for patients with coronary artery disease," he said.

The new guidelines were deemed necessary because existing guidelines don't focus on atrial fibrillation (AF) in postcardiac surgery patients, said Eric Prystowsky, M.D., a panel member and director of the Clinical Electrophysiology Laboratory at St. Vincent Hospital, Indianapolis.

"The AF that occurs after cardiac surgery is really a unique problem that should be looked at differently than other AF issues," he said in an interview. "It's a situation that has a temporal relationship to a very specific event, and should not be viewed as an ongoing event."

Because of its acute nature and its common occurrence—up to 60% of cardiac surgery patients experience it—many patients leave the hospital either over- or undertreated, said Dr. Prystowsky, who also coauthored the 2001 American College of Cardiology/American Heart Association/European Society of Cardiology Guidelines for the Management of Patients With Atrial Fibrillation (J. Am. Coll. Cardiol. 2001;38:1231-66).

"If these patients fit a high-risk pattern for stroke, and many cardiac surgery patients do, then they are at a significantly increased risk if they develop AF. Many of them go home inappropriately anticoagulated. But it's not necessary for the rest of their lives. After they get back into normal rhythm, they can go back to their previous treatment regimen."

The obsession with immediate restoration of normal heart rhythm has led to overtreatment, he added. "People are overaggressively focused on putting the rhythm back to normal acutely."

"You don't have to give all kinds of drugs with potential toxicity. We have to remember this is an acute situation. It's perfectly acceptable to control the rate, make sure they're appropriately anticoagulated, and then let them regroup. The majority are back in normal rhythm by their 6-week checkup," explained Dr. Prystowsky.

In constructing its recommendations, the panel conducted a comprehensive literature review that included 128 controlled trials; the evidence from each trial was graded, as were each of the subsequent recommendations.

"We looked for studies that could give answers to four goals for these patients," Dr. McKeown said: "controlling ventricular response rate in AF, preventing throm-

boembolism, converting to normal sinus rhythm, and prophylaxis to prevent AF in this population."

The panel found conflicting data on anticoagulation therapy for postoperative AF; therefore its recommendations in this area were based on expert opinion. However, the panel did recommend anticoagulation therapy in optimally selected patients with chronic AF and in those patients in whom it is likely that AF will continue.

For patients with chronic AF, the panel recommended postoperative warfarin, giving the recommendation an "A" grade, and saying the net benefit was substantial. For those with postoperative AF, the panel recommended postoperative heparin. The recommendation received a grade of "C," with an intermediate net benefit.

The panel found no strong evidence as to duration of anticoagulation but said physicians should take into consideration the self-limiting nature of postoperative AF.

Studies comparing rates of atrial fibrillation in off-pump vs. on-pump coronary artery bypass graft procedures yielded conflicting results, the panel said. Therefore, it could not recommend off-pump procedures as a method of reducing postoperative AF.

Biatrial pacing after surgery was found to be effective in reducing the incidence of AF, and received a "B" grade, although evidence shows that the net benefit is probably small. Inconclusive evidence precluded the recommendation of isolated left or right atrial pacing.

The guidelines are meant to be just that—guidelines, Dr. McKeown said. "Evidence-based medicine gives you a rational way to treat people, but it's just one more piece of information you have to incorporate into the mix. It's still an individual choice that the physician must make based on the needs of the individual patient." ■

Amiodarone Cuts Postop Atrial Fib

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW YORK — Intraoperative and postoperative treatment with amiodarone was associated with a significantly lower incidence of atrial fibrillation in patients undergoing cardiac surgery, in a comparison of case series with a total of more than 1,000 patients.

And among patients who developed atrial fibrillation despite amiodarone treatment, their length of hospital stay for atrial fibrillation was significantly reduced, Keith B. Allen, M.D., and his associates reported in a poster at the annual meeting of the International Society for Minimally Invasive Cardiothoracic Surgery.

The study compared the atrial fibrillation outcomes of 476 consecutive patients who underwent cardiac surgery in Indianapolis from July to December 2002 without amiodarone treatment, and 592 consecutive patients who underwent cardiac surgery with amiodarone treatment from January to June 2003. Aside from amiodarone treatment, all other facets of their medical and surgical care were the same, said the report's authors, who were led by Dr. Allen, a cardiothoracic surgeon at St. Vincent's Medical Center in Indianapolis.

Routine use of prophylactic amiodarone was associated with a 35% cut in the incidence of atrial fibrillation, in an adjusted multivariate analysis.

The amiodarone regimen began with an intraoperative dose of 150 mg administered intravenously. Treatment continued postoperatively until hospital discharge with a 200 mg oral dose administered t.i.d. All patients also received metoprolol postoperatively, and magnesium sulfate during and after their surgery.

During the postoperative period, 29% of patients who had surgery without amiodarone developed atrial fibrillation, compared with 16% of patients who received amiodarone, a 45% relative cut in the atrial fibrillation rate that was statistically significant.

A second analysis looked at the average duration of hospitalization for atrial fibrillation in those patients who had this complication. The mean length of stay was 13.1 days among those who did not receive prophylactic amiodarone, and 9.4 days among patients who received the drug, a difference that was just short of statistical significance.

In a multivariate analysis that adjusted for baseline clinical and demographic differences between the two groups of patients, routine use of prophylactic amiodarone was associated with a statistically significant, 35% cut in the incidence of atrial fibrillation, Dr. Allen and his associates said. ■