Catheter Ablation of Atrial Fib Effective

BY BRUCE JANCIN
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ORLANDO, FLA. — A single session of catheter ablation of atrial fibrillation backed up by antiarrhythmic drug therapy proved markedly more effective than antiarrhythmic drugs alone at preventing atrial arrhythmia recurrences in the first-ever randomized multicenter trial of this percutaneous therapy.

The Catheter Ablation for the Cure of Atrial Fibrillation (CACAF) study was also unique in that it used intensive daily transtelephonic ECG monitoring during 12 months of follow-up, rather than relying on patient-reported symptoms and periodic assessments during follow-up visits, as in the observational studies.

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DR. BERTAGLIA

As a result, the 1-year rates of freedom from atrial fibrillation (AF) in both arms of CACAF were substantially lower than in prior observational studies. But this first randomized trial provides a truer picture of efficacy, Emanuele Bertaglia, M.D., said at the annual meeting of the American College of Cardiology.

CACAF involved 137 patients with paroxysmal or persistent AF refractory to two or more different antiarrhythmic agents who were randomized to catheter ablation plus antiarrhythmic drug therapy or antiarrhythmic drug therapy alone.

"These were the worst patients we could find in our clinical practices. Their mean age was 62, with 6 years' duration of atrial fibrillation, and most had failed at least three antiarrhythmic agents," the cardiologist and CACAF cochair said.

The main study end point was a total absence of recurrent atrial tachyarrhythmia during the 12 months of follow-up.

In the control group, 63 of 69 patients, or 91%, developed at least one recurrent AF episode. Of the 68 who received catheter ablation, 44% (30) relapsed, of whom 26 experienced recurrent AF and 4 had typical atrial flutter, reported Dr. Bertaglia, of the Civil Hospital of Mirano, Italy.

The rate of major complications was 6% in the ablation group, including one stroke, one case of pericardial effusion, and one case of transient phrenic nerve paralysis. The complication rate was virtually identical among controls, including one stroke and one sudden death.

Half of the 38 patients in the ablation group who remained AF-free during the first 12 months of follow-up were subsequently randomized to discontinue antiarrhythmic drug therapy. During a further 12.5 months of follow-up, 3 of 19 patients no longer on antiarrhythmic drugs had an AF recurrence, as did 2 of 19 who remained on medication. Based on this encouraging observation, the next phase of CACAF is already underway, in which larger numbers of ablation-treated patients are being followed on or off antiarrhythmic drug therapy to learn whether medication is really necessary. The final results are due in 2009.

Discussant Jeffrey J. Goldberger, M.D., of Northwestern University, Chicago, commented that the dramatic reduction in AF episodes seen in this "very well executed" study, coupled with the favorable results of the observational studies, leave no room for doubt: AF ablation results in better control of the arrhythmia than medical therapy.

AF ablation is a complex procedure, and the strategies to accomplish it have evolved rapidly over the last few years. As to whether or not the catheter therapy is ready for prime time clinical practice, Dr. Goldberger said the answer really depends on the chosen end points.

If the goal is symptomatic improvement and reduced AF recurrences, catheter ablation is clearly ready. But if physicians remain interested in the strategy of maintaining normal sinus rhythm in order to potentially reduce thromboembolic events, improve left ventricular function, and prolong survival, there will need to be further large randomized trials featuring intensive ECG monitoring. The goal of these studies will be to weigh the benefits of ablation against the significant reported complications, which include intraesophageal fistulas, strokes, and pulmonary vein stenoses, he continued.

The CACAF ablation strategy involved circumferential isolation of all pulmonary vein ostia and creation of two linear lesions, one along the isthmus between the left inferior pulmonary veins and the mitral annulus, the other in the right atrium between the inferior vena cava and tricuspid annulus.

The Italian investigators utilized a single transseptal puncture and placed a diagnostic catheter in the coronary sinus. Ablation was performed using the Navistar ThermoCool device at a setting of 20-30 mL/min and 20-45 W. The Carto Navigation System was employed to create a 3-D reconstruction of the left atrium. The mean procedure duration was 193 minutes; however, the Carto system enabled fluoroscopy time to average a mere 25 minutes.

Dr. Bertaglia is on the speakers' bureau for Biosense Webster Inc., the CACAF sponsor. ■

Propafenone Called Drug of Choice For Rhythm Control in Atrial Fib

ORLANDO, FLA. — Propafenone outperformed sotalol for long-term maintenance of sinus rhythm in patients with recurrent atrial fibrillation in a randomized, single-blind, placebo-controlled trial, Nikos E. Igoumenidis, M.D., reported at the annual meeting of the American College of Cardiology.

Based on the results of this unsponsored study, propafenone should be considered the drug of first choice for maintenance of sinus rhythm in patients with atrial fibrillation (AF), according to Dr. Igoumenidis of Heraklion (Greece) University Hospital.

The drug that is cited in the literature as being the most effective antiarrhythmic agent for preventing recurrent AF, amiodarone, is fraught with side effects that limit its usefulness, he added.

Dr. Igoumenidis reported on 254 consecutive patients, 126 of them women, with recurrent symptomatic AF who were cardioverted to sinus rhythm and randomized to 450 mg/day of propafenone, 160-480 mg/day sotalol as tolerated, or placebo.

Of 85 patients in the sotalol group, 69 (81%) relapsed and/or had side effects requiring drug discontinuation after a mean of 18 months. Of the 83 on placebo, 73 (88%) developed recurrent AF after a mean of 11 months. In contrast, only 45 of 86 patients (52%) in the propafenone arm had relapse and/or discontinued treatment due to intolerable side effects after a mean of 26 months.

Three of the five patients who discontinued sotalol did so because of symptomatic bradycardia that arose during the loading phase. The other two dropped out due to severe dizziness, once again early in treatment. Seven other patients experienced significant side effects on sotalol that remitted when the dose was lowered, enabling them to continue on the medication.

Five patients quit taking propafenone because of side effects. All were early in therapy and in sinus rhythm at the time. One developed unpleasant taste sensations, another had dizziness, and another experienced symptomatic bradycardia. The remaining two dropped out upon showing an increase in QRS duration or elevated liver enzymes.

—Bruce Jancin

Warfarin: Real World Stroke Prevention Doesn't Match Trials

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW ORLEANS — Real world experience with warfarin suggests that it is not as good at preventing strokes in patients with atrial fibrillation as clinical trial results suggested, especially among African Americans.

A review of more than 23,000 Medicare patients with atrial fibrillation showed that warfarin prophylaxis cut the stroke rate by 34%, compared with a 65% cut in strokes that's been consistently seen in clinical trials, Brian F. Gage, M.D., reported at the 30th International Stroke Conference.

The rate of protection from stroke remained unexpectedly low among African Americans.

DR. GAGE

This lower efficacy in a real-world setting is "disappointing," said Dr. Gage, an internist at Washington University, St. Louis.

Even worse, warfarin use among African Americans was associated with a nonsignificant trend toward more strokes, compared with African Americans not on warfarin.

The study used a national sample of 23,657 Medicare patients with atrial fibrillation who were treated during April 1998 though March 1999. Warfarin prophylaxis was used by 43% of African Americans in the study and by 50% of white patients.

Information culled from the medical records of the patients on warfarin therapy showed that this prophylaxis was often used in a less-than-ideal manner. Patients who regularly receive warfarin should have their dosage adjusted based on their international normalized ratio (INR), a measure of clotting time. Ideally, INRs should be measured about every 28 days in patients who regularly take warfarin.

Among all white patients, the average time between INR measurements was 26 days, and among African Americans the average interval was 30 days. But 25% of the white patients on warfarin had an interval of 39 days or longer between INR measurements. Among African Americans on warfarin, 25% had an interval of 57 days or longer between measurements, Dr. Gage said at the conference sponsored by the American Stroke Association. For these subgroups, the interval between INR measurements was "way too long," he said.

But substandard INR monitoring was not the only reason patients got less benefit from warfarin prophylaxis, compared with the benchmark of clinical trials. The rate of protection from stroke remained unexpectedly low among African Americans even in an analysis that controlled for the frequency of INR monitoring as well as clinical variables that predispose patients to strokes, said Dr. Gage, who is also medical director of the Blood Thinner Clinic at Barnes-Jewish Hospital in St. Louis.

The clinical trials that assessed warfarin's efficacy for preventing strokes in patients with atrial fibrillation were highly selective; results came from patients that were mostly white, less than age 75 years, and followed closely, and they may not be generalizable, Dr. Gage said. ■