

# Ablation Improves Drug Refractory Atrial Fib

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ORLANDO — 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



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DR. BERTAGLIA

12 months of follow-up, rather than relying on patient-reported symptoms and periodic assessments during follow-up visits, as in the observational studies.

As a result, the 1-year rates of freedom from atrial fibrillation (AF) in both arms of the trial were substantially lower than in prior 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.

## Gender Gap in AF Recurrence After Cardioversion

NEW ORLEANS — The recurrence rate of persistent atrial fibrillation following cardioversion is significantly higher in women than men, Osnat Gurevitz, M.D., reported at the annual meeting of the Heart Rhythm Society.

The mechanism underlying this gender difference is unclear. It is well established, however, that repolarization time is longer in women than men. And repolarization is an important determinant of arrhythmogenesis, noted Dr. Gurevitz of the Mayo Clinic, Rochester, Minn.

She reported on 773 consecutive patients who underwent cardioversion for persistent atrial fibrillation (AF). Of the 486 men, 56% remained arrhythmia free at 1 year and 33% at 2 years, compared with 50% and 24%, respectively, of women. In a univariate analysis, men were 20% less likely to experience AF recurrence after controlling for potential confounding variables.

Women had a significantly greater AF recurrence rate despite their lower prevalence of significant coronary artery disease—22%, compared with 34% in men. On the other hand, 72% of the women carried the diagnosis of hypertension, compared with only 56% of men.

—Bruce Jancin

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 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



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Pseudomembranous colitis has been reported with nearly all antibacterial agents. It is important to consider this diagnosis in patients who present with diarrhea.

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 func-

tion, 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 transeptal 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.

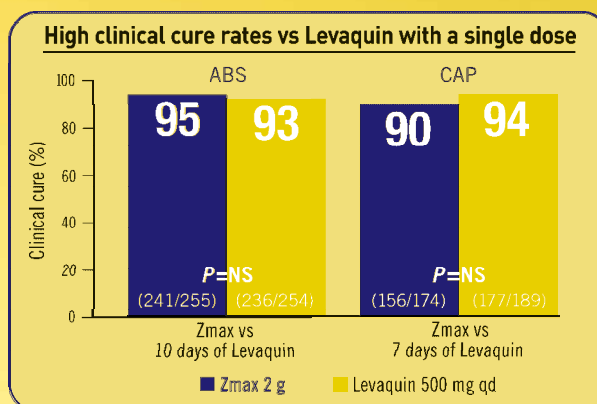
The mean procedure duration was 193 minutes; however, the Carto system enabled fluoroscopy time to average a mere 25 minutes.

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

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