



The Role of Asymptomatic AF on Postablation Outcomes

Written by Jill Shuman

Atrial fibrillation (AF) is responsible for substantial morbidity, including stroke. While catheter ablation has emerged as an effective treatment for symptomatic AF [Stabile G et al. *Eur Heart J* 2006], less is known about the incidence of either pre- or postablation asymptomatic AF [Rho RW, Page RL. *Prog Cardiovasc Dis* 2005]. Because clinical outcomes related to the use of ablation for AF typically rely on a patient's symptoms, it is likely that asymptomatic AF has important implications on postablation outcomes and treatments.

Atul Verma, MD, Southlake Regional Health Center, Newmarket, Ontario, Canada, spoke about results from the Discerning the Incidence of Symptomatic and Asymptomatic Episodes of Atrial Fibrillation Before and After Catheter Ablation trial [DISCERN AF; Verma A et al. *JAMA Intern Med* 2013]. The purpose of the trial was to monitor the incidence and predictors of symptomatic versus asymptomatic AF in patients who had undergone catheter ablation, according to an implantable cardiac monitor (ICM) with an implantable loop recorder that automatically recorded episodes of AF. The device was implanted at least 3 months before the patient underwent ablation and was in place for a minimum of 18 months following ablation.

DISCERN AF was a multicenter prospective cohort study conducted at 8 centers across Canada. Enrollment began in November 2008 and included 50 patients. Baseline characteristics are shown in Table 1. The primary end points of the study were incidence of asymptomatic AF versus (1) symptomatic AF before ablation, (2) symptomatic AF recurrence following "successful" ablation, and (3) symptomatic AF recurrence following "unsuccessful"

Table 1. Patient Characteristics: DISCERN, n=50 AF*

Age, years	57±11
Male sex, %	68
Paroxysmal atrial fibrillation, %	80
CCS SAF score	3±1
No. of failed antiarrhythmics	1.2±0.7
Hypertension, %	30
Structural heart disease, %	18
Ejection fraction, %	58±11
Left atrial diameter, mm	41±6

CCS SAF=Canadian Cardiovascular Society Severity of Atrial Fibrillation.

*On November 12, 2014, this table was added.

ablation. Successful ablation was defined as a lack of AF episodes >2 minutes at least 3 months after ablation.

The first follow-up after implantation of the device occurred at 3 months to collect preablation data, then every 3 months for 18 months after ablation. At each visit, data from the ICM were downloaded and saved, and patients' symptoms diaries were collected. Patients were blinded to the ICM data; the physicians were not, as they needed the information to aid in clinical decision making. Episodes of AF were classified by independent adjudicators as AF, atrial flutter (AFL), atrial tachycardia (AT), sinus, sinus with ectopy, or artifact. Symptomatic recurrence was defined as an ICM-recorded episode of atrial arrhythmia for which there were symptoms recorded by the patient in the diary. All other episodes were considered asymptomatic.

Prof. Verma then reviewed the results from DISCERN AF. From a total of 2355 of AF episodes recorded by the ICM, 69% were true AF, AFL, and AT. Following ablation, the total AF, AFL, and AT burden was reduced by 86%, from a mean of 2 hours per day per patient to 0.3 hours per day ($p<0.001$); 56% of all episodes were asymptomatic. The ratio of asymptomatic AF, AFL, and AT significantly increased after ablation from 1.1 to 3.7 ($p=0.002$).

Multivariate predictors of asymptomatic AF included postablation status, lower heart rate, lower heart rate variability, and a shorter duration of episode. Prof. Verma concluded by emphasizing that symptoms alone likely underestimate the AF burden after ablation, as 12% of patients had exclusively asymptomatic episodes of recurrent arrhythmia.

Ablation Versus Antiarrhythmic Drugs in Persistent AF: The SARA Trial

Written by Jill Shuman

Compared with antiarrhythmic drug therapy (ADT), catheter ablation (CA) is an effective treatment for paroxysmal atrial fibrillation (PAF) [Jaïs P et al. *Circulation* 2008]. Although CA is recommended as an indication for patients with PAF by current US and European guidelines [Camm A et al. *Eur Heart J* 2012; Fuster V et al. *J Am Coll Cardiol* 2011], its use by patients with persistent AF is unclear and even controversial. This is due in part to a paucity of data comparing the efficacy of the 2 therapies in patients with symptomatic, persistent AF.

Lluís Mont, MD, Universitat de Barcelona, Barcelona, Spain, reviewed data from the Study of Ablation Versus Antiarrhythmic Drugs in Persistent Atrial Fibrillation [SARA; Mont L et al. *Eur Heart J* 2014]. SARA was a multicenter trial conducted at 8 sites in Spain to compare the effectiveness of CA versus ADT among patients with