

ArrhythmiaNews

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What are the Alternatives to Anticoagulants to Prevent Stroke in Patients with Atrial Fibrillation?

Atrial fibrillation (AF) is the most common arrhythmia and its incidence and prevalence increase with age, particularly in patients with underlying cardiovascular disease. AF may be associated with a considerable risk of stroke, which is adjudicated by the CHA₂DS₂-VASc scoring system.

Non vitamin K antagonist oral anticoagulants, the “NOACs,” have emerged as therapeutic alternatives for stroke prevention in patients with nonvalvular AF as they are at least as efficacious and safe, with less intracranial bleeding, compared with vitamin K antagonists (warfarin).

Catheter Ablation

AF is increasingly treated with catheter based ablation techniques. However, it is still unclear if catheter ablation affects the prognosis or merely improves symptom status of AF. A recent provocative paper examined this issue. Using data from a national Swedish registry of thousands of patients, investigators performed an analysis of patients who underwent catheter ablation compared with a matched control group of patients who did not.¹ After multivariate adjustments, catheter ablation was associated with a lower risk of ischemic stroke, and a lower mortality risk. Stroke was reduced by about 30% and death by about 50%. Stroke reduction was most pronounced in patients at higher risk. Although the study is a nonrandomized cohort, it is quite large, and provides reassurance that ablation is not associated with increased risk and that the procedure may protect patients from the more serious consequences of AF over time. Large randomized clinical trials, which are currently underway, may address this question more definitively, and we eagerly await the results.

Left Atrial Appendage Closure

Despite the introduction of new drug therapy for stroke prevention, and the possible benefits of catheter ablation, many patients and physicians continue to seek alternatives for stroke prevention, usually prompted by serious or life-threatening bleeding complications.

Left atrial appendage closure, currently accomplished with the FDA approved Watchman device (see figure below) is a nonpharmacological alternative for stroke prevention in high-risk patients with nonvalvular AF when oral anticoagulant therapy is deemed not to be an ideal long-term treatment, usually due to bleeding risk. It is based on the premise that the vast majority of thrombi in the left atrium are localized in the left atrial appendage. Several randomized studies have found this treatment to be safe, effective and noninferior to warfarin for stroke prevention.

The recently published EWOLUTION registry² was designed to determine if findings from clinical trials are generalizable into real world clinical settings where there will be more variable physician practices and more diverse patient populations.

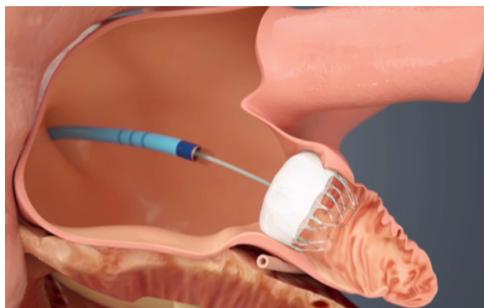


Figure: Illustration of transcatheter placement of Watchman device into left atrial appendage.

After enrolling more than 1,000 patients, it was observed that the Watchman device was successfully deployed in 98.5% of patients with virtually every patient having demonstrated absence of flow into and out of the left atrial appendage. Complications occurred in 2.8% of patients including major bleeding and pericardial effusion although tamponade was rarely encountered. The safety aspects of the procedure were notable because the patients were quite high risk. Stroke outcome data is pending.

Based on all published data, it can be concluded that left atrial closure is a viable alternative to chronic anticoagulant therapy in patients who have experienced serious bleeding or are unable to be chronically maintained on anticoagulant therapy for legitimate reasons. The procedure can be accomplished in virtually every patient with an excellent safety profile. Randomized clinical data suggests that these patients will enjoy stroke outcomes similar to patients who are treated with chronic warfarin.

The SMG Arrhythmia Center is partnering with the structural heart program at Hackensack University Medical Center that has one of the largest national experiences with left atrial closure. We have used Watchman implantation in our patients who were considered appropriate candidates based on the criteria described above. If you have a patient who may benefit from an alternative to chronic anticoagulant therapy, please contact our physicians or our office to arrange a consultation.

References

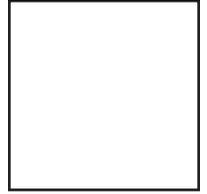
1. Eur Heart J 2016; 37:2493-2502
2. Eur Heart J 2016; 37:2465-2474



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To learn more about Drs. Altman and Steinberg, visit arrhythmia.org.

News and Noteworthy

Editorial Board Appointment

Dr. Jonathan Steinberg, the SMG Arrhythmia Center Director, has been appointed to the editorial board of the prestigious electrophysiology journal, Heart Rhythm, the official publication of the Heart Rhythm Society.