Complimentary Patient Services

- Nutrition Counseling
- Financial Services
- Supportive Services
- Patient Education – Facilitated by Advanced Practice Nursing Staff and Certified Social Workers
- Pastoral Services – One-on-One Counseling and Emotional and Spiritual Support

AFIB Support Group

Emory Heart & Vascular Center offers a support group for all patients with atrial fibrillation and their family members. Meetings are held quarterly, typically on a Saturday morning, and will offer lectures from an electrophysiologist, a question & answer session, and the opportunity to meet others who have faced similar challenges with this condition.

The Support Group is open to all members of the community, including those who receive their care outside the Emory Healthcare system.

Learn more here:
emoryhealthcare.org/arrhythmia/af-support

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The Chamber
Heart & Vascular Innovations at Emory
Winter 2017
EMORY HEALTHCARE

Convergent Atrial Fibrillation Ablation Holds Promise for Refractory Cases

62-Year-Old Maintains Normal Rhythm One Year Post-Procedure

A 62-year-old, morbidly obese male had been struggling with atrial fibrillation (AF), which had progressed from paroxysmal to persistent over five years. He used a CPAP machine for obstructive sleep apnea and was taking medication for hypertension. As the AF became persistent, his physician prescribed antiarrhythmic medication and cardioverted him three times over two years, attempting to restore normal rhythm.

Each cardioversion worked for a couple of weeks before the heart reverted to AF. When the man was in sinus rhythm, he felt noticeably better and could pursue exercise with a goal of losing weight. As soon as he went into AF, however, he felt tired and short of breath with any activity.

After his third cardioversion, the man's physician referred him to Emory Heart & Vascular Center. He had been in persistent AF for about four months since the last cardioversion. Physicians ordered pre-ablation testing, including cardiac MRI, which showed a moderately enlarged atrium and a mildly impaired ejection fraction of 45 percent.

Given the patient's persistent AF, despite antiarrhythmic medications and repeated cardioversions, Emory physicians recommended **convergent atrial fibrillation ablation**, a new type of AF ablation procedure.

continued inside

Convergent AF Ablation

Catheter ablation of atrial fibrillation (AF) has emerged as an important treatment option for patients with symptomatic AF, particularly among those who remain symptomatic despite antiarrhythmic drugs. Only a handful of medical centers across the country are performing convergent AF ablation. The two-part procedure combines traditional AF ablation with an epicardial ablation performed by a cardiothoracic surgeon.

The surgeon begins the procedure with a subxiphoid incision and inserts the ablation tool into the chest. The surgeon then ablates the posterior wall of the left atrium.

Step two involves traditional ablation, as the electrophysiologist goes through one or both groin areas to the left atrium. The physician ablates tissue around the pulmonary veins, the site most typically associated with AF. The goal of the convergent procedure is to isolate the pulmonary veins and the entire posterior wall of the left atrium.

It's well-documented that the standard ablation procedure alone is successful in paroxysmal AF cases about 70 to 80 percent of the time. For those with persistent AF, such as this 62-year-old patient, the success rate of a single procedure is about 50 to 60 percent. People with recalcitrant AF may require additional procedures and may require antiarrhythmic drugs, even after an ablation. Convergent AF ablation offers the potential for a higher success rate with a single procedure for persistent AF.

Pros and Cons of the New Procedure

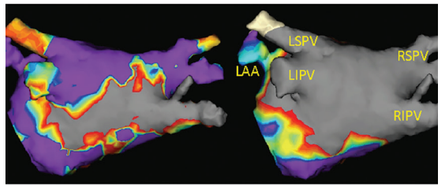
In addition to catheter ablation of AF, there has been a long-standing interest in the use of surgical approaches to atrial fibrillation management. Although surgical AF ablation can be used as a standalone procedure, it is frequently utilized in patients who are undergoing concomitant surgery for other cardiac pathology (i.e. valve repair/replacement). Adding a surgical component to the procedure increases the procedure time, and recovery time, and slightly increases the complication rate. On the other hand, surgically performing epicardial ablation provides an advantage over endocardial ablation of the posterior wall by avoiding vital nearby structures such as the esophagus.

Over the past year and a half, Emory has performed more than 80 convergent AF ablations, about 5-10 percent of our total ablation cases. A few minor complications have occurred, but a substantially higher percentage of patients have predominantly sinus rhythm after recovering from the convergent ablation than would be expected with a standard endocardial ablation.

Our doctors continuously monitor a patient's heart rhythm after a convergent procedure through an implantable device about 2 cm by 1/2 cm thick placed under the skin prior to the procedure.

A Successful Outcome

Since his procedure a year ago, the man with persistent AF has remained in normal rhythm. He is not taking any blood thinners or antiarrhythmic medications. His ejection fraction has improved, and he is working and exercising regularly. He has lost about 20 pounds and continues to pursue goals for better fitness. As he improves his overall health, his sleep apnea and high blood pressure should also be easier to manage. He has every hope for a normal life expectancy.



Posterior views of the left atrium before (left) and after (right) Convergent atrial fibrillation ablation. Regions in purple denote healthy atrial tissue, regions in gray denote scar tissue or electrically isolated tissue and the colors in between represent a transition from healthy to scar tissue.

Prior to ablation, there is a small region of scar along the inferior, posterior left atrium and extending into the right inferior pulmonary vein (RIPV).

The voltage in the rest of the left atrium and pulmonary veins is relatively healthy. Patchy regions of scar and fibrosis can serve as a nidus for re-entrant wavefronts which sustain atrial fibrillation prior to ablation. After the Convergent ablation, the entire posterior wall and all four pulmonary veins are electrically isolated, denoted by the gray areas.

Isolation of the pulmonary veins and ablation of the posterior wall makes the atrium much less likely to sustain atrial fibrillation.

LSPV = left superior pulmonary vein; LIPV = left inferior pulmonary vein; RSPV = right superior pulmonary vein; LAA = left atrial appendage.

Emory Electrophysiology

Emory cardiac electrophysiologists are using innovative techniques leveraging the latest research and technology to successfully treat cardiovascular disease in the least invasive ways possible.

We emphasize an integrated, collaborative team approach that extends to you, as the referring physician, to deliver the most appropriate treatment for your patient.

Our Team

David De Lurgio, MD
Mikhael El-Chami, MD
Michael Hoskins, MD
Jonathan Langberg, MD
Angel Leon, MD
Michael Lloyd, MD
Faisal Merchant, MD
Anshul Patel, MD
Anand Shah, MD

To refer a patient to an Emory cardiac electrophysiologist, please call our physician consult line **404-778-5050**.

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