Emory Structural Heart & Valve Center Team

EMORY UNIVERSITY HOSPITAL MIDTOWN

Interventional Cardiologists

Adam Greenbaum, MD, *Co-Director, Emory Structural Heart & Valve Center*
Chandanreddy Devireddy, MD

Cardiac Surgeons

Kendra J. Grubb, MD, *Surgical Director, Emory Structural Heart & Valve Center*
Robert Guyton, MD

Robotic Cardiac Surgeon

Michael Halkos, MD

EMORY SAINT JOSEPH'S HOSPITAL

Interventional Cardiologists

William Lieppe, MD
James Stewart, MD

Cardiac Surgeons

Steven Macheers, MD
Jeffrey Miller, MD

Robotic Cardiac Surgeon

Michael Halkos, MD
Doug Murphy, MD

EMORY UNIVERSITY HOSPITAL

Interventional Cardiologists

Vasilis Babaliaros, MD, *Co-Director, Emory Structural Heart & Valve Center*
Peter Block, MD, FACC

Cardiac Surgeon

Bradley Leshnower, MD

To refer a patient to the Emory Structural Heart & Valve Center, please call **404-778-5050**.

101 W. Ponce de Leon Ave.
4th Floor
Decatur, Georgia 30030

Emory Heart & Vascular Center Transfer Service
404-778-4930

Emory Physician Consult Line
404-778-5050

Emory HealthConnection℠
404-778-7777 (Patients)

emoryhealthcare.org/rightdirection

The Chamber
Heart & Vascular Innovations at Emory
Winter 2019
EMORY HEALTHCARE

TAVR Techniques & Applications Expand

80-Year-Old Woman Receives Moderate Sedation, Goes Home Next Day

An 80-year-old woman in eastern Alabama was being followed by her cardiologist for aortic stenosis, coronary artery disease, high blood pressure and high cholesterol. She had a stent in her left circumflex artery and had also been treated with renal angioplasty for renal artery stenosis.

In addition, the woman had type 2 diabetes and a history of transient ischemic attacks. She found it increasingly difficult to breathe and climb stairs, and was feeling more fatigued overall. The woman had experienced a syncopal episode a year prior, and during the past three months, was having pre-syncopal symptoms.

An echocardiogram confirmed severe aortic stenosis. The woman's aortic valve measured 0.88 cm2, and her cardiologist referred her to Emory Healthcare for evaluation for transcatheter aortic valve replacement (TAVR).

A team of cardiologists and cardiothoracic surgeons at Emory assessed her as being at intermediate risk for traditional aortic valve surgery. Options for treatment, including open surgery, as well as TAVR were discussed with the patient. After considering the risks and benefits of both procedures, the patient elected to undergo TAVR. The TAVR was performed in July 2018 in Emory's catheterization laboratory with the patient under moderate sedation.

Continued inside

TAVR Techniques continued

"The Emory Team of interventional cardiologists, cardiac surgeons, anesthesiologists and staff are pioneers in performing TAVR under moderate sedation, which allows us to send patients home earlier," says Lead Nurse Practitioner Tricia Keegan. "We're always innovating, and by having a process of evaluating anesthesia choices that are tailored to the patient, we have reduced procedure complications and ICU length of stay. In many instances, we are able to avoid the ICU altogether."

Patients who receive moderate sedation typically go home within a day or two, and this particular patient went home the day after her procedure. She had no restrictions upon discharge.

"The patient is doing well, is less short of breath and has returned to normal activities," Dr. Patrick Gleason, a general cardiologist and imaging specialist at Emory, reports.

Ongoing Advances with TAVR

Striving to improve patient care and patient outcomes with valvular heart disease, Emory participates in multiple clinical trials for TAVR, including the current multi-center study to evaluate TAVR for low-surgical-risk patients. If results are favorable, TAVR could become a viable treatment option for most aortic valve replacements. The findings are expected to be released in Spring 2019.

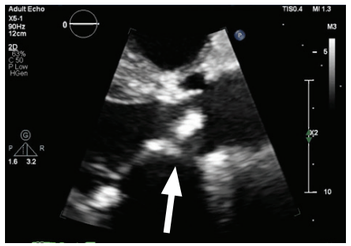
For patients with severe peripheral artery disease and heavily calcified arterial vessels, traditional TAVR may not be feasible due to the difficulty delivering the valve through the femoral arteries. In collaboration with the NIH, Adam Greenbaum, MD, and Vasilis Babaliaros, MD, have developed the "trans-caval" technique which allows the valve to be put in through the femoral veins, across the inferior vena cava into the aorta, and then delivered in the typical fashion. This technique is less painful and allows the patient to return to normal activity faster when compared to some other techniques used when the peripheral arteries are too calcified.

Further advances include percutaneous modification to previous surgical aortic valve replacements. TAVR can be used to fix a previous surgical valve replacement that is no longer working properly, but in some cases, this can result in coronary artery occlusion. Emory was one of only a few centers in the country that participated in a trial testing whether modifying the surgical valve leaflets can reduce coronary artery obstruction and allow for safe treatment of these patients.

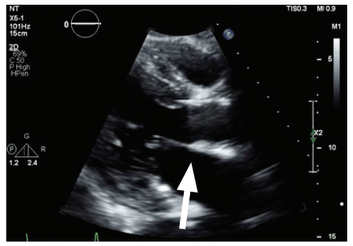
"At Emory, we welcome referrals of the most complex cases, and we're skilled at modifying procedures to address complex anatomy or other complicating factors," Dr. Babaliaros says.

A recently released study in *JAMA Cardiology* notes that there is a link between high volume and positive outcomes for TAVR. Specifically, those hospitals performing more than 100 TAVR procedures a year have lower 30-day readmission rates. Over the past three years, Emory has averaged over 440 TAVR's per year.

Emory has performed more than 2,500 TAVR procedures, a higher volume than any other medical center in Georgia.



BEFORE TAVR: *Transthoracic echocardiogram (TTE) demonstrating a severely calcified aortic valve before TAVR.*



AFTER TAVR: *TTE demonstrating a TAVR valve in the same patient after implantation.*

To make a referral or consult with one of our structural heart specialists, call our physician referral line at **404-778-5050**.

Why Emory

At Emory Structural Heart and Valve Center we put our patients first. Our **patient-centric model** has become widely recognized throughout the United States and is considered the gold standard to which many emulate.

- Nurse navigators lead our patients through every step of the program – starting with the very first appointment. As a patient's main point of contact, they offer encouragement and support throughout testing, procedures and recovery. The goal of our nurse navigators is to provide each patient with the most positive experience possible during this overwhelming and emotional time.
- **Block schedules** ensure patients are able to maximize appointments and minimize worry. We streamline processes so patients are able see all of the necessary specialists within the same day. This gives everyone a greater understanding of the current situation and facilitates effective go-forward strategies.
- **Our patients have more options.** When medicine and non-surgical treatments will not correct the problem, we offer surgical, percutaneous and robotics procedures, as well as more than 20 clinical trials in the structural heart disease space. Our individual approach to patient care even steers us towards unique solutions to help those tough cases where the usual just won't do.
- **We believe in a shared decision-making model.** Our team of experts outlines the benefits and risks of all available treatment options and leads discussions with the patients, their families and referring physicians. Everyone is encouraged to ask questions, share preferences and openly express concerns so informed decisions can be made and realistic expectations can be set.
- **Clinical researchers** from Emory's Structural Heart & Valve program offer patients access to some of the most advanced cardiovascular treatments and clinical trials offered anywhere.
- Our team of highly specialized physicians, nurses and support staff work together to provide every patient with **compassionate care** and an excellent procedure in a safe, clean environment.