

Emory Aortic Center

The Emory Aortic Center offers comprehensive care for the full range of aortic diseases and conditions.

The Center brings together the experience, expertise and passion of Emory's cardiac and vascular surgeons, who collaborate to provide the most appropriate care for the specific needs and anatomy of each patient we see.

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

Cardiothoracic Surgeons

Edward Chen, MD

Bradley Leshnower, MD

Vascular Surgeons

Yazan Duwayri, MD

Peter H'Doubler, MD

Guillermo Escobar, MD

William Jordan Jr., MD

Charles Lewinstein, MD

Joseph Zarge, MD

To transfer a patient to Emory Healthcare for aortic emergencies, please call our transfer service at **404-778-4930**.

To refer a patient to an Emory Aortic Center physician, please call our physician consult line at **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 HealthConnectionSM

404-778-7777 (Patients)

emoryhealthcare.org/rightdirection

Young Man Survives Rare Aortic Rupture

Emory Cardiac and Vascular Surgeons Team up for Emergency Endovascular Repair

In December 2016, a 16-year-old male athlete with a ruptured type B aortic dissection and two liters of blood in his chest was transferred to Emory University Hospital from another Atlanta hospital. The leaking blood had created a temporary tamponade of the dissected aorta, with no guarantee the seal would hold.

Working as a team, cardiac surgeon Bradley Leshnower, MD, and vascular surgeon Yazan Duwayri, MD, transferred the patient directly into the operating room for an emergency thoracic endovascular aortic repair (TEVAR). In less than an hour, they implanted stent grafts to repair the dissection along the length of the aorta and save the patient's life.

"With our multidisciplinary approach, we improve the safety and outcome for patients who require multiple stages of treatment," Dr. Duwayri says. "We can address further interventions in the heart, the aorta close to the heart or branch vessels in the chest and abdomen."

Type B aortic dissections typically occur in men in their 60s and 70s, so Dr. Duwayri's experience with both pediatric and adult vascular surgery contributed to their young patient's survival.

Continued inside



For more case studies like this, visit emoryhealthcare.org/rightdirection.

Aortic Rupture continued

The Procedure

At Emory, TEVAR is performed in a hybrid operating room with advanced imaging techniques and standard open surgical capabilities for adults and occasional pediatric patients.

The rupture of the tear along the length of the 16-year-old's aorta required precise placement of two stents from the mid-aortic arch to the top of the abdominal aorta – about 300 cm (FIGURE 1). The boy received a blood transfusion. To help seal off the aorta, the physicians waited 48 hours to drain the blood from his chest cavity. Within the week, thoracic surgeons performed a minimally invasive procedure to remove retained clotted blood from the pleural space.



Figure 1

Recovery and Follow-Up

Postop care in the cardiovascular ICU included neurological monitoring to ensure healthy spinal cord function post-procedure. The patient recovered in the hospital for a week. He is following up with a pediatric cardiologist and an Emory Healthcare genetic counselor. The Emory Aortic Center will provide lifelong surveillance for long-term aneurysm formation.

Most patients who receive TEVAR can resume normal activities after a week, with lifting restrictions of 25 pounds in the first two weeks. The 16-year-old has returned to school. He will be allowed to play basketball again and can lead a normal life.

Dr. Leshnowar comments on the procedure: “This type of aortic dissection represents the highest mortality risk. We gain tremendous satisfaction in helping people like this young patient by using minimally invasive techniques to perform lifesaving therapy in an expedient fashion.”

He adds, “The Emory Aortic Center can provide comprehensive care with surgeons, cardiologists, geneticists and an entire team, plus offer clinical trials and research. That is what differentiates us from other centers in the area.”

Lessons Learned

Drs. Leshnowar and Duwayri co-authored a recent study, “Aortic Remodeling After Endovascular Repair of Complicated Acute Type B Aortic Dissection,” (www.emoryhealthcare.org/typeb) which adds to the body of evidence supporting TEVAR as first-line therapy for complicated, acute type B aortic dissection. They concluded that in-hospital and one-year mortality rates under 6 percent offset an increased incidence of reintervention expected with endovascular therapy, due to pathologic aortic segments remaining in place.

The area distal to the stent graft requires close, ongoing surveillance because it is the most likely segment to weaken and require intervention.

Drs. Leshnowar and Duwayri recently won a best presentation award at The Society of Thoracic Surgeons 2016 annual meeting for their research on type B aortic dissection.

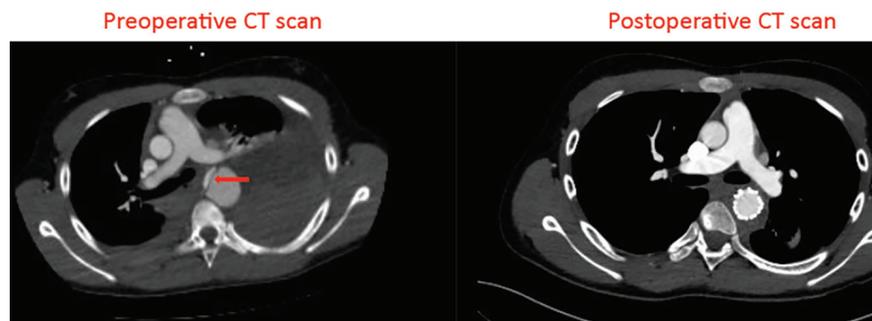


Figure 2

Setting the Standard: Emory Aortic Center

Physicians of the Emory Aortic Center have established an international reputation for excellence in treating aortic dissections with medical management, TEVAR, open surgery or hybrid procedures.

Volume: 100 aortic dissections treated annually, including more type A dissections than any other Georgia medical center and 12 to 15 rare, complex type B dissections.

Complexity: Our volume, training and outcomes provide us with the ability to treat patients with complex and high risk aortic conditions. “We take on the hardest cases,” Dr. Leshnowar affirms, citing the case presented here.

Team Approach: Unparalleled, combined experience of a cardiothoracic and vascular surgeon, enabling optimal intervention and repair of the entire thoracic and abdominal aorta.

Low Morbidity and Mortality: In-hospital and one-year mortality rates were 3.9 percent and 5.8 percent, respectively, following TEVAR for complicated acute type B aortic dissection (according to a study from January 2012 to December 2015). These results are consistent with the results of other high-volume aortic centers across the country.

Long-Term Surveillance: The Emory Aortic Center does lifetime surveillance of a patient's aorta to monitor the development of aneurysms.

Regional Referral Center for the Southeast: Patients travel to Emory from across Georgia, Tennessee, South Carolina, Florida, Alabama and Mississippi.

Clinical Trials: As Atlanta's only academic medical center, Emory is positioned to test the latest stent grafts and techniques for aortic dissection.

Publications and Presentations: Emory's physicians have published studies on aortic dissection in numerous peer-reviewed journals and presented their findings at national and international conferences.

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