HEART CARE NEWS

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NORTHSIDE HOSPITAL HEART INSTITUTE

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Comprehensive Cardiac Care for Expectant Mothers: An Overview of Northside Hospital Heart Institute's Cardio-Obstetrics Program

The Cardio-Obstetrics Program at Northside Hospital Heart Institute (NHHI), which launched in 2014, is a multi-disciplinary collaboration between maternal-fetal physicians, anesthesiology, nursing, advanced practitioners and cardiologists. "Because most years, Northside Atlanta delivers more babies than any other hospital in the country, we have extensive experience in treating obstetrics with cardiac issues," stated Cardio-Obstetrics Medical Director, Dr. Lee Padove. Patients with cardiovascular conditions that lead to high-risk pregnancies benefit from coordinated and collaborative efforts from our cardio-obstetrics team. Our team of experts provide cardiac care and education before, during and after pregnancy. Comprehensive care includes risk assessment and diagnostic evaluation, monitoring and education, ongoing management of cardiovascular conditions, and referrals to support services, such as cardiac and pulmonary rehabilitation, nutrition support, behavioral health, and smoking and tobacco cessation. As a leader in cardiovascular research and treatment, NHHI offers cutting-edge protocols and personalized wellness plans for optimal cardiovascular health. We also provide access to clinical trials introducing novel therapies that offer life-changing treatment options for cardiovascular disease.

Below is a list outlining the variety of conditions that may be managed through the Cardio-Obstetrics Program.

Preexisting heart conditions:

- Disease of the heart valves, such as bicuspid aortic valve, aortic stenosis, mitral stenosis, mitral valve prolapse, mechanical heart valves
- Congenital heart disease, such as tetralogy of Fallot, hypoplastic left heart syndrome, congenital heart block, or atrioventricular block
- Heart failure history, such as cardiomyopathy, or prior peripartum cardiomyopathy
- Abnormal heart rhythms, arrhythmias, including supraventricular tachycardia and atrial fibrillation
- Heart attack history
- Pulmonary hypertension history
- Coronary artery disease
- Heart murmurs
- Pericarditis

Pregnancy-induced cardiovascular conditions:

- Peripartum cardiomyopathy
- Preeclampsia with severe features

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The NHHI Cardio-Obstetrics Program is led by board-certified cardiovascular physicians who are experts in clinical cardiology, preventive care and cardiac imaging. Our providers have completed specialized training and education in cardio-obstetrics. They participate in monthly NHHI Cardio-Obstetrics Case Review meetings and engage in one-on-one case reviews with the Cardio-Obstetrics Medical Director, Dr. Lee Padove. Dr. Padove brings a wealth of expertise to the field, having lectured on cardio-obstetrics at local, regional, national, and international levels.

NHHI Cardio-Obstetrics Providers:


Mary Bergh, MD


Courtney Bess, MD


Parham Eshtehardi, MD


Keionna Grant, MD


Lee Padove, MD


Amit Tibrewala, MD


Deepthi Tirunagari, MD


Michele Doughty Voeltz, MD


Faresa Weragoda, MD


An Young, MD

For more information, visit NHHI Cardio-Obstetrics Program or call 404.845.8200.

Clinical Trials and Research

Sponsor	Study/Protocol Number and Study Title	NCT Identifier
Endovascular Engineering	**C-558; CLN01001 ||** ENGULF: A Safety and Feasibility Single-Arm Study of a Novel Catheter Thrombectomy Device For the Treatment of Pulmonary Embolism	NCT05597891
	Study Design Eligible patients are enrolled into pre-pivotal and pivotal cohorts to be treated with the Viper Catheter System	**Key Eligibility Criteria** • Symptomatic acute submassive PE with duration ≤14 days, and medically eligible for interventional procedure(s) • CTA evidence of proximal PE • RV/LV ratio of ≥ 0.9 • Systolic blood pressure ≥ 90 mmHg and heart rate < 130 BPM prior to procedure
REDNVIA Co.	**C-544; TR-CAVD-001 ||** EVOID-AS: An Adaptive Phase 2/3 Multicenter, Double-Blind, Placebo-Controlled, Randomized, Parallel, Three Arm Study to Evaluate the Efficacy and Safety of DA-1229 (Evogliptin) in Patient's Calcific Aortic Valve Disease with Mild to Moderate Aortic Stenosis	NCT05143177
	Study Design • Eligible patients are randomized 1:1:1 to the following: **Arm A**: DA-1229 Placebo PO QD **Arm B**: DA-1229 5 mg PO QD **Arm C**: DA-1229 10 mg PO QD	**Key Eligibility Criteria** • Calcific aortic valve disease with mild to moderate aortic stenosis • Left ventricular ejection fraction > 50% • No concomitant moderate or more aortic valve regurgitation; concomitant moderate or severe mitral or tricuspid disease; or NYHA class III or IV heart failure • No previous history of aortic valve surgery

BPM=beats per minute; CTA=computed tomography angiography; LV=left ventricle; mmHg=millimeters of mercury; NYHA=New York Heart Association; PE=pulmonary embolism; PO=by mouth; QD=once daily; RV=right ventricle.

To learn more about Clinical Trials at Northside Hospital, visit our Clinical Research page or call 404.303.3355.

In the News: Updates for Clinicians

Highlights from the European Society of Cardiology Congress: The FINEARTS-HF Trial Demonstrates Improved Outcomes with Mineralocorticoid Receptor Antagonists in Patients with Heart Failure

Dr. Scott Solomon (Brigham and Women's Hospital and Harvard Medical School) and colleagues presented primary results from FINEARTS-HF (NCT04435626), an international, randomized trial evaluating finerenone or matching placebo, in addition to usual therapy, for patients with heart failure (HF) and a left ventricular ejection fraction (LVEF) of ≥40%.[1] Additional inclusion criteria included age ≥40 years, elevated natriuretic peptides and evidence of structural heart disease. Eligible patients were randomly assigned (1:1) to finerenone (up to 40 mg once daily depending on baseline estimated glomerular filtration rate [eGFR]) or placebo. The primary endpoint was a composite of total (first and repeat) worsening HF events and cardiovascular death. Secondary endpoints included all-cause mortality and a composite kidney outcome (sustained 50% or greater decline in eGFR, sustained decline in eGFR to less than 15 ml/min/1.73 m^2 or initiation of chronic dialysis or kidney transplantation). Results of this trial were subsequently published in the *New England Journal of Medicine* in early September 2024.[2]

In total, 6,001 patients were randomized from more than 650 sites across 37 countries. The mean age was 72 years, and 46% were women. The mean LVEF was 53%, the majority had New York Heart Association (NYHA) class II HF (69%), and 20% of patients were enrolled during or within seven days of a worsening HF event. Over a median follow-up of 32 months, 1083 primary-outcome events occurred in 624 of 3003 patients in the finerenone group, and 1283 primary-outcome events occurred in 719 of 2998 patients in the placebo group (rate ratio, 0.84; 95% confidence interval [CI], 0.74 to 0.95; P=0.007). The total number of worsening heart failure events was 842 in the finerenone group and 1024 in the placebo group (rate ratio, 0.82; 95% CI, 0.71 to 0.94; P=0.006). Cardiovascular death was non-significantly reduced in the finerenone arm (8.1% and 8.7%; hazard ratio [HR] 0.93; 95% CI 0.78 to1.11). The primary outcome results were consistent in all prespecified subgroups, including those based on ejection fraction or baseline use of sodium-glucose co-transporter-2 (SGLT2) inhibitors. There was no difference in the finerenone and placebo groups for all-cause mortality (16.4% and 17.4%, respectively; HR 0.93; 95% CI 0.83 to 1.06) or the composite kidney outcome (2.5% and 1.8%, respectively; HR 1.33; 95% CI 0.94 to 1.89).

Serious adverse events were similar between treatment groups (finerenone: 38.7%; placebo: 40.5%). Finerenone increased the risk of investigator-reported hyperkalemia (9.7% versus 4.2%), but lowered the risk of hypokalemia (4.4% versus 9.7%).

Expert Commentary

By Brenda Hott, MD

We have had limited guideline-directed medical therapy for our patients with heart failure mildly reduced EF (HFmrEF) and heart failure preserved EF (HFpEF). Currently, we have only one IA medication for treatment of these patients, i.e., SGLT2 inhibitors. Post hoc analysis of the TOPCAT trial[3] demonstrated the benefit of mineralocorticoid receptor antagonists (MRAs) for this patient population; however, the TOPCAT trial did not meet its primary end point; and therefore, this could only be considered hypothesis generating. The FINEARTS-HF trial is the first trial to give us definitive evidence that MRAs are beneficial in patients with HFmrEF and HFpEF. As expected, hyperkalemia was more common in the finenerone arm. Creatinine and potassium should be followed closely as recommended in the HFrEF guidelines for these medications.

References:

1. Solomon S, et al. FINEARTS-HF - Finerenone in heart failure with mildly reduced and preserved ejection fraction. Abstract presented at: European Society of Cardiology Congress; August 30-September 2, 2024; London, United Kingdom. 2. Solomon S, et al. *N Engl J Med*. 2024. doi: 10.1056/NEJMoa2407107. 3. Neefs J, et al. Am J *Cardiovasc Drugs*. 2020;20(1):73-80.

Angiographic Analysis Reveals Increased Risk of Thrombus Burden in Patients with COVID-19 and ST-elevation Myocardial Infarction

By Cindy Grines, MD

COVID-19 in patients with ST-elevation myocardial infarction (STEMI) is associated with increased mortality. With no independent core lab angiographic analysis of patients with COVID-19 and STEMI to date, we analyzed the angiographic parameters of patients with COVID-19 and STEMI.[1]

Angiograms of patients with COVID-19 and STEMI from the North American COVID-19 Myocardial Infarction (NACMI) Registry were sent to a core laboratory in Vancouver, Canada. Quantitative coronary angiography percent diameter stenosis (DS), thrombolysis in myocardial infarction (TIMI) flow, myocardial blush grade (BMG) and thrombus grade burden (TGB) were assessed. Percutaneous coronary intervention (PCI) was classified as unsuccessful if there was residual DS>50% and/or <TIMI 2 flow and/or untreated complication(s). Multi-vessel (MV) thrombotic disease and stenotic disease was defined as TGB > 0 and DS > 50% in more than two arteries, respectively.

Of the 205 patients with confirmed COVID-19, there were 240 culprit lesions; 74% had one culprit lesion; 14% had multiple culprits; and 12% had no culprit identified. Multivessel thrombotic disease and multivessel CAD were found in 27% and 53% of patients, respectively. Stent thrombosis accounted for 12% of the presentations and occurred in 55% of patients with previous coronary stents. Of the 182 who underwent PCI, 60 (33%) had unsuccessful PCI due to post-PCI TIMI flow

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Angiographic Analysis Reveals Increased Risk of Thrombus Burden in Patients with COVID-19 and ST-elevation Myocardial Infarction *(continued from page 3)*

<3 (43/60), residual high thrombus burden (41/60) and/or thrombus related complications (27/60). In-hospital mortality for successful, partially successful, and unsuccessful PCI was 14%, 13% and 27%, respectively. Unsuccessful PCI was associated with increased risk of in-hospital mortality.

In patients with COVID-19 and STEMI, thrombus burden was extensive, with high rates of multivessel thrombotic disease and stent thrombosis. Post-PCI, persistent thrombus and sub-optimal TIMI 3 flow rates led to one-third of the PCI's being unsuccessful, which decreased over time but remained an important predictor of in-hospital mortality.

Reference:
1. Dehgani P, et al. *Am Heart J.* 2024;271:112-122.

Outcomes of Complex High-Risk Percutaneous Coronary Intervention in Nonsurgical Centers

By Cindy Grines, MD

Complications from percutaneous coronary intervention (PCI) requiring emergency coronary bypass surgery (CABG) are now rare, occurring in less than 0.5% of cases, compared to 6%-10% in the 1980s. Modern PCI techniques have largely eliminated the need for emergency CABG, allowing complications to be managed in the catheterization lab. This advancement has enabled many centers worldwide to establish successful PCI programs in nonsurgical centers (NSCs). Limited data are available on complex high-risk percutaneous coronary intervention (CHiP) trends and outcomes in NSCs. We participated in a study that evaluated data from a national registry to examine the characteristics and outcomes of CHiP procedures performed for stable angina according to the presence or absence of on-site surgical cover.[1] Multivariate regression analyses and propensity score matching were used to determine risks for in-hospital death, major bleeding, and major cardiovascular or cerebral events (MACCE).

One hundred nineteen centers were included, of which 63% were nonsurgical; 134,730 (31.8%) out of 424,290 procedure records of patients with stable angina treated with PCI from January 1, 2006, to December 31, 2017, met the eligibility criteria. Out of 134,730 CHiP procedures, 31.5% were performed in NSCs, increasing from 12.5% in 2006 to 42% in 2017. Compared with surgical centers (SCs), patients who underwent a CHiP procedure in NSCs were, on average, 2.4 years older and had a greater prevalence of cardiovascular risks. Common CHiP procedures performed in NSCs included poor left ventricular function (41.6%), chronic renal failure (38.8%), and chronic total occlusion percutaneous coronary intervention (31.1%). NSC-based CHiP is associated with lower odds of mortality and major bleeding. In both groups, MACCE odds were similar.

CHiP numbers have steadily increased in NSCs. NSC patients were older and had a higher prevalence of cardiovascular risks than SC patients. Mortality and major bleeding odds were significantly lower in those cases performed in NSCs, although MACCE odds were not different between the groups.

Reference:
1. Shamkhani W, et al. *Can J Cardiol*. 2024;40(7):1237-1246.

Clinical Characteristics and Outcomes of Patients with Chronic Kidney Disease Undergoing Impella-Supported High-Risk Percutaneous Coronary Intervention

By Cindy Grines, MD

Patients with chronic kidney disease (CKD) exhibit a greater burden of coronary artery disease and more calcified atherosclerotic plaque compared with those with normal renal function. However, these patients are underrepresented in contemporary coronary artery disease clinical trials. Percutaneous microaxial flow pump devices, such as Impella®, have been increasingly utilized in percutaneous coronary interventions to provide hemodynamic support. There are no large studies evaluating angiographic characteristics and outcomes of patients with CKD undergoing percutaneous coronary intervention with Impella hemodynamic support. PROTECT III is a single-arm observational study of 1237 patients at 46 centers in North America who underwent Impella-supported high-risk percutaneous intervention (HRPCI). We analyzed patients enrolled in the PROTECT III study according to their baseline estimated glomerular filtration rate (eGFR).[1] The primary outcome was 90-day major adverse cardiovascular and cerebrovascular events (the composite of all-cause death, myocardial infarction, stroke/transient ischemic attack, and repeat revascularization).

Of 1237 enrolled patients, 1052 with complete eGFR baseline assessment were evaluated: 586 with eGFR ≥60 mL/min per 1.73 m^2, 190 with eGFR ≥45 to <60, 105 with eGFR ≥30 to <45, and 171 with eGFR <30 or on dialysis. Patients with lower eGFR (all groups with eGFR <60) were more frequently females and had a higher prevalence of hypertension, diabetes, anemia and peripheral artery disease. The baseline Synergy Between PCI With Taxus and Cardiac Surgery (SYNTAX) score was similar between groups (28.2±12.6 for all groups). Patients with lower eGFR were more likely to have severe coronary calcifications and higher usage of atherectomy. There were no differences in individual PCI–related coronary complications between groups. Major adverse cardiovascular and cerebrovascular events at 90 days and one-year mortality were significantly higher among patients with eGFR <30 mL/min per 1.73 m^2 or on dialysis.

Patients with CKD undergoing PCI with Impella support had more clinical comorbidities, greater prevalence of severe

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Clinical Characteristics and Outcomes of Patients with Chronic Kidney Disease Undergoing Impella-Supported High-Risk Percutaneous Coronary Intervention *(continued from page 4)*

calcification and higher atherectomy usage compared with those with normal renal function; however, there was no difference in the incidence of immediate percutaneous coronary intervention–related complications. However, the presence of severe renal dysfunction was independently associated with worse clinical outcomes, whereas milder degrees of renal dysfunction were not.

Reference:
1. Bharadwaj AS, et al. *Circ Cardiovasc Interv*. 2024;17(7):e013503.

Persistent Myocardial Injury in Mild COVID-19 Vaccine-Associated Myocarditis Cases Highlights Need for Ongoing Clinical Surveillance and Long-Term Studies

By Parham Eshtehardi, MD

Myocarditis is a rare complication of certain vaccines, including those against smallpox and, more recently, COVID-19. When we observed a case of myocarditis after COVID-19 vaccination in a young man at Northside in 2021, I contacted other cardiologists in the U.S. to see if they had seen similar cases. We collected 63 cases from 16 U.S. hospitals and published the first report of a pediatric cohort with COVID-19 vaccine-associated myocarditis (C-VAM), systematically studied by cardiac magnetic resonance imaging (CMR) in *Pediatrics*.[1] The FDA subsequently funded our follow-up longitudinal study.

Our current multicenter study[2] included 38 U.S. hospitals and 333 patients with C-VAM who were compared with 100 patients with multisystem inflammatory syndrome in children (MIS-C, caused by COVID-19 infection). This study, published in Lancet's open access journal (eClinicalMedicine), describes the largest longitudinal study in C-VAM to date and provides detailed clinical characterization along with CMR information. Myocardial injury as evidenced by late gadolinium enhancement on CMR is common in patients with myocarditis after mRNA COVID-19 vaccination who present to the hospital, especially adolescent males. Patients with C-VAM were predominantly white adolescent males, and their initial clinical course was milder compared to MIS-C. Mid-term clinical outcomes of C-VAM at a median follow-up of 178 days were mild and reassuring. No cardiac deaths or heart transplantations were reported. Abnormal CMR findings, however, persisted in 60% of patients at follow-up. While the clinical significance of abnormal CMR findings is unclear, these findings warrant continued clinical surveillance and long-term studies.

References:
1. Jain SS, et al. *Pediatrics*. 2021;148(5):e2021053427
2. Jain SS, et al. *eClinicalMedicine*. 2024;76:102809.

Northside Hospital Heart Institute Involvement at SCAI SHOCK 2024

The 2024 SCAI SHOCK meeting was held on October 17-19, 2024 in Washington, DC. Northside Hospital's Dr. Allison G. Dupont was the Associate Chair and Jason Grady was a Program Co-Chair. Dr. Dupont delivered three key presentations: "Cardiogenic Shock in Women," "What's New in ECMO?," and "Topic 5: Escalation Considerations." Jason Grady, NRP contributed to the program with several presentations, including "The Role of EMS, Transport, and ED in the Management of Shock," "Cardiogenic Shock in the Cath Lab," "ICU Models, and "The Challenges and Nuances of Transporting Patients on MCS."


Allison G. Dupont, MD


Jason Grady, NRP

DPH GEORGIA DEPARTMENT OF PUBLIC HEALTH / LEVEL I EMERGENCY CARDIAC CARE CENTER

Northside Hospital Gwinnett and Northside Hospital Duluth recently completed their triannual site review by the DPH Office of Cardiac Care and have successfully earned redesignation. Northside Hospital Gwinnett has been redesignated as a Level 1 Emergency Cardiac Care Center, while Northside Hospital Duluth has been redesignated as a Level 3 Emergency Cardiac Care Center.

Elevating the Patient Experience

Northside's Cardio-Oncology Program Offers Multidisciplinary Expertise to Optimize Cancer Treatment While Protecting the Heart

By Faresa Weragoda, MD

Breast cancer continues to be one of the leading causes of mortality and morbidity for women in the U.S., impacting one out of every eight women. Fortunately, with advancements in screening and treatments, survivorship is becoming more common. Breast cancer treatments, however, have short- and long-term implications on other organs, including the heart. Therefore, strategies are now in place to monitor this vulnerable population. Northside Hospital has developed a specialized team of cardiologists to provide cardiac care during and after treatments for all cancers, including breast cancer.

The Cardio-Oncology program at Northside Hospital includes a group of cardiologists across multiple locations with specialized training and education in understanding the needs of cancer patients who are at high risk for heart disease. With dedicated protocols for education and training of providers, along with ease of access to consultation and

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Northside's Cardio-Oncology Program Offers Multidisciplinary Expertise to Optimize Cancer Treatment While Protecting the Heart *(continued from page 5)*

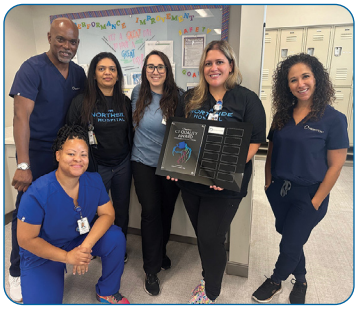
imaging appointments for patients, this program is now recognized by the International Cardio-Oncology Society, receiving the highest distinction.

For patients with breast cancer, heart disease continues to be a leading cause of mortality, due to shared risk factors, such as obesity and smoking. Furthermore, chemotherapy and radiation can accelerate the course of cardiovascular disease, particularly hypertension, coronary artery disease and valvular heart disease. Given the prevalence of heart disease, it is important to assess risks prior to initiating lifesaving cancer treatment. Northside's Cardio-Oncology program offers set protocols for serial surveillance via EKG, echocardiogram, labs, and higher level modalities and procedures (e.g., nuclear stress testing, CT/MRI, catheterizations) when needed. For example, anthraycline chemotherapy (e.g., doxorubicin, epirubicin) and HER2-directed therapies (e.g., trastuzumab), often used to treat breast cancer, can directly damage cardiac cells, initiating left ventricular dysfunction, hence serial monitoring with echocardiogram may be required every three months. Long-term monitoring may also be recommended based on personalized risk, as some adverse outcomes may become apparent after ten or more years. With close monitoring from cardio-oncology specialists, early signs and symptoms of these complications can be identified, and cardio-protective medications (such as beta blockers) can be initiated to mitigate heart disease while continuing cancer therapies.

The goal is to treat cancer while protecting the heart from acute and chronic impact of chemotherapy and radiation, while also addressing pre-existing conditions. To contact the Northside Cardio-Oncology program, please call 404.845.8200.

Northside Hospital Heart Institute Recognized with CT Quality Award from Heartflow®

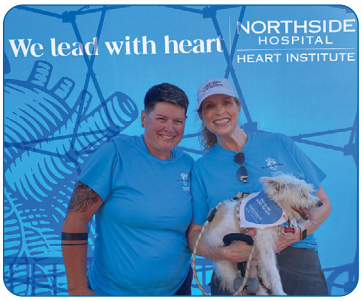
The Computer Tomography department at the 2200 Medical Office Building of Northside Hospital Gwinnett received a CT Quality Award from Heartflow. Heartflow is a medical technology company specializing in precision heart care. This recognition is awarded to teams that achieve excellence in cardiac imaging with a 90% accuracy or greater. Northside's Amy Holloway, DIR, RAD, SVCS stated, "Radiology's partnership with NHHI is of utmost importance to us, hence we set out on a journey with a goal to provide coronary CT angiography images and fractionated flow reserve data of unparalleled quality. We have achieved this goal. This award recognizes the planning and detail that goes into each individual patient's coronary CT. Less than 20% of our field has received this award, so this is a proud moment for radiology; congrats to our CT team, RNs and radiologists!"



Around Our Campuses and Community

Northside Hospital Participates at the Atlanta Heart Walk

The Atlanta Heart Walk, held on September 21 , 2024 at Lenox Square Mall, drew its traditional crowd of over a thousand participants. Eager walkers embarked on their journey at 7:00 a.m. Northside Hospital System had 55 teams and 623 walkers, raising $76,868. Thank you to all who participated in this impactful event.



New Locations Opened in August 2024

- Northside Cardiovascular – Buford is located at 2800 Buford Drive, Suite 220, Buford, GA 30519.
- Cardiovascular Diagnostic Clinic (CVDC) – Buford is located at 2800 Buford Drive, Suite 210, Buford, GA 30519.
- CardioVascular Group – Buford is located at 2800 Buford Drive, Suite 320, Buford, GA 30519.

Team Features and Recognitions

Northside Hospital Heart Institute Is Pleased to Welcome Several New Physicians

Courtney Raquel Bess, MD is a non-invasive cardiologist practicing at Northside Cardiovascular – Buford and Lawrenceville locations. To learn more, visit northside.com/courtney-bess.

Hojune Eric Chung, DO is a non-invasive cardiologist practicing at Northside Cardiovascular – Duluth and Lawrenceville locations. To learn more, visit northside.com/hojune-eric-chung.

Korrin Scott Ford, MD is a cardiac anesthesiologist practicing at Northside Hospital Duluth and Northside Hospital Gwinnett. To learn more, visit northside.com/korrin-ford.

Venkata Sai Gogineni, MD is an interventional cardiologist practicing at Northside Cardiovascular – Canton. To learn more, visit northside.com/venkata-gogineni.

Rahul Ram Goli, MD is an interventional cardiologist practicing at Northside Cardiovascular – Canton. To learn more, visit northside.com/rahul-goli.

Venu Gourineni, MD is a non-invasive cardiologist practicing at Northside Heart – Towne Lake and Canton locations. To learn more, visit northside.com/venu-gourineni.

Shawn Michael Poole, MD is a vascular surgeon practicing at Northside Vascular Surgery – Atlanta. To learn more, visit northside.com/shawn-poole.

Tarun Ramayya, MD is a non-invasive cardiologist practicing at Northside Cardiovascular – Lawrenceville and Buford locations. To learn more, visit northside.com/tarun-ramayya.

Yasser Rodriguez, MD is a cardiac electrophysiologist practicing at Northside Cardiovascular – Buford, Lawrenceville, and Cumming locations. To learn more, visit northside.com/yasser-rodriguez.

Chi Zhang, MD is a cardiac electrophysiologist practicing at Northside Cardiovascular – Duluth, Dawsonville, Buford, Barfield and Canton locations. To learn more, visit northside.com/chi-zhang.

Congratulations Graduates!

Eight students recently graduated from the Northside School of Echocardiography.

Upcoming Education and Events

Georgia Chapter of American Cardiology Annual Meeting
November 22-24, 2024 in Greensboro, GA
accga.org/annual-meeting/

Southern Association for Vascular Surgery 49th Annual Meeting
January 22-25, 2025 in St. Thomas, US Virgin Islands
meeting.savs.org/

The Heart of the Matter: Managing Cardiovascular Risks in Pregnancy
February 28-March 1, 2025 at Hyatt Regency Atlanta Perimeter at Villa Christina
Northside.com/HOTM2025

Big Canoe Cardiovascular Screening
March 26, 2025 from 9 a.m. to 1 p.m. in Jasper
Save the date. Additional information will be available soon.

Sign up for Heart Care News

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