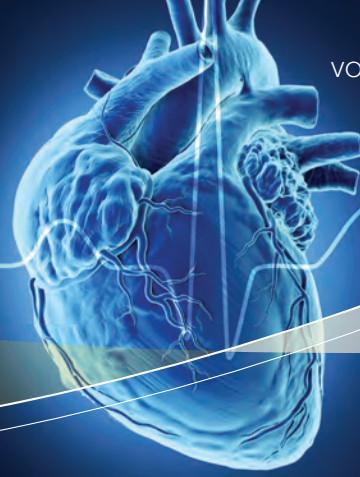


CARDIOVASCULAR
Physician



4 Heart
Transplants
in **3** Days



The Balancing Act of Medicine



As a physician who has witnessed first-hand the extraordinary evolution of cardiovascular science and practice, it's not often that I find myself astonished. But recently I read of a group of Israeli researchers who for the first time successfully produced a "heart-like" organ via 3-D printing.¹

Using modified stem cells and bio-ink created from personalized biocompatible material, the organ was the size of a rabbit heart and had no pumping mechanism or functioning vessels. Still, the potential is truly breathtaking. 3-D printers will print human organs using a patient's own DNA. Imagine open source design, an inexhaustible supply of organs, and no rejection issues.

It's a game-changer. The often difficult organ procurement system discussed in this issue of the newsletter might need not exist. We may be years away from building patients new hearts in a print shop, but this research is truly awe-inspiring.

In other developments, a self-propelled catheter with a robotic camera independently winds its way around a beating pig's heart without human operator direction, and genetic modeling is beginning to enable us to reprogram human biology to prevent all cardiovascular disease. While some of these futuristic ideas may be decades away from reality, others are no longer simply theoretical.



SLOW AND STEADY

Every day we see the impact of discovery, which is reshaping cardiovascular care. In this issue of *Cardiovascular Physician* we highlight two such advances in electrophysiology: His bundle pacing, a novel approach to the treatment of heart block; and the next generation left atrial appendage closure device, the WATCHMAN FLX™, a potentially life-changing tool to reduce the risk of stroke in certain patients with atrial fibrillation.

Sometimes advances in medicine come in a reorganization of care delivery. The new Heart-Brain Team highlighted on the adjacent page is an important collaboration helping to better identify patients with PFO-related stroke who would benefit from closure.

PUSH-PULL OF HIGH-TECH, HIGH-TOUCH

Sometimes there are consequences of technological advances that can evoke concern. A recent article in *JAMA* presented the results of a study of how first-year internal medicine residents allocate time while working on general medicine inpatient services.² The results may be troubling to some. During a 24-hour period, residents spent far more time with their computers than at the patient's bedside, by a ratio of nearly 3:1! I confess this provoked nostalgia for the past, and a determination to ensure that MedStar Heart & Vascular Institute at least balances this disturbing trend. I am delighted to say that our efforts are succeeding. In the most recent *U.S. News & World Report* rankings of U.S. hospitals, our standing continues to rise in the top 50 heart programs in the country.

Finally, I would be remiss in not mentioning the profound sadness I feel at the passing of Dr. Paul Corso. He was a true pioneer whose innovative thinking helped to transform cardiovascular surgery.

We were not only professional colleagues, but friends as well. In his long career, Paul found ways to not only explore new horizons, but also to sustain the art of our profession—and the vital human connection to patients that should always complement our most ingenious technology.

¹*Adv. Sci.* 2019, 1900344 *Adv. Sci.* 2019, 1900344

²*JAMA Intern Med.* doi:10.1001/jamainternmed.2019.0095



Vascular Neurologist Mary Carter Denny, MD, and Interventional Cardiologist Lowell Satler, MD

Heart-Brain Team Collaborates for PFO-Related Stroke Prevention

The management of stroke patients with patent foramen ovale (PFO) can sometimes be a confusing feedback loop. Did the PFO contribute to a patient's initial stroke? Would this patient benefit from PFO closure to reduce the risk of recurrent stroke? At MedStar Heart & Vascular Institute, the Heart-Brain Team relies on the expertise of a multidisciplinary team of specialists and an established protocol to put the issue in focus.

"Just because an ischemic stroke patient has a PFO doesn't mean the PFO caused the stroke," says Lowell Satler, MD, director of Coronary Interventions at MedStar Washington Hospital Center. "Twenty-five percent of the population has a PFO and many have no symptoms. Determining who is a candidate for PFO closure is a matter of exclusion of other risk factors—and studying the patient's unique anatomy. It takes evaluation by a collaborative team of specialists to recommend the best possible treatment."

SHARED DECISION-MAKING

The five-member Heart-Brain Team brings together interventional cardiologists at the Hospital Center and neurologists at MedStar Georgetown University Hospital who examine the potential relationship between a patient's stroke and PFO. Interventional cardiology identifies the features of a patient's PFO that may have caused the stroke. Neurology clarifies whether the patient would benefit from PFO closure.

"As part of a stroke patient's initial diagnostic work-up, the presence of a PFO is typically identified on a transthoracic echo with a bubble study," says Mary Carter Denny, MD, vascular neurologist at MedStar Georgetown. "If a PFO is suspected as the stroke's cause, a transesophageal echo is performed for more detailed information. A thorough evaluation of the patient's stroke etiology will exclude other causes of stroke such as atrial fibrillation, carotid stenosis,

and small vessel disease from uncontrolled hypertension."

Dr. Satler explains, "If a stroke is determined to be PFO-related, additional testing occurs during the first month post-stroke. Patients need time to recover, while we perform tests including doppler of lower extremities, MRA, MRI, carotid ultrasound, examination for hypercoagulable blood disorders, and ambulatory monitoring. We evaluate all of these elements and proceed with shared decision-making and risk stratification."

PERCUTANEOUS PFO CLOSURE

PFO closure is performed percutaneously using the AMPLATZER™ device. Dr. Satler has performed hundreds of these procedures and was an investigator in the national RESPECT clinical trial that proved the device's effectiveness to reduce recurrent cryptogenic stroke.

"Patients with PFO are often anxious when diagnosed and may insist on closure," Dr. Denny says. "But we are careful about selecting those patients who will benefit from PFO closure. That's why we educate patients on stroke risk factors and work closely with providers to clarify any questions."

"This is why shared decision-making is so important," Dr. Satler adds. "We want the best result for patients. It's also the reason the concept of the Heart-Brain Team is being embraced across the country."

For a consult with one of our specialists, call 202-877-5975.



MHVI Proving Ground for WATCHMAN, Next Generation LAA Occluder Devices

In the four short years since the FDA approved the WATCHMAN™ device, cardiac electrophysiologists and interventional cardiologists at MedStar Heart & Vascular Institute (MHVI) have performed more than 320 implantations—an impressive record that makes MHVI an international leader in the field.

Long before the WATCHMAN occluder device reached the marketplace, MedStar Washington Hospital Center was among 62 centers that tested and perfected the device through the PROTECT AF clinical trial initiated in 2005. That groundbreaking research proved the WATCHMAN's effectiveness in reducing the risk of stroke among patients with atrial fibrillation (AFib) by closure of the left atrial appendage (LAA).

MHVI CARDIAC EP STATS AT A GLANCE



19

Board-certified, Fellowship-trained EP Specialists



22

Regional Outpatient Clinic Sites

320+

WATCHMAN™ Procedures to Date

The device, an ingenious parachute-shaped mesh membrane, is inserted in the LAA by a percutaneous procedure. The WATCHMAN expands to the size of a quarter and acts as a filter, allowing blood to pass through while blocking clots. Over time, scar tissue grows over the device. It seals off the LAA permanently, excluding it from the circulation and thus slashing the risk of stroke-causing blood clots.

VAST INSTITUTIONAL KNOWLEDGE

"Collectively, we have more than 14 years of experience implanting WATCHMAN," says Manish Shah, MD, program director of Cardiac Electrophysiology Fellowship Training for MHVI. "We were

the first to implant WATCHMAN in the region, and we perform the highest volume of implantations in the Washington, D.C./Maryland/Northern Virginia region. Our team has amassed enormous knowledge, experience, and expertise, and has built a well-developed clinical research program."

While Dr. Shah performs the bulk of WATCHMAN implantations at the Hospital Center, the program includes John Wang, MD, the lead at MedStar Union Memorial Hospital in Baltimore, and Sarfraz Durrani, MD, in the Northern Virginia program.

"Our first-class LAA closure program is just one component of a widely recognized clinical cardiac electrophysiology organization," says Zayd Eldadah, MD, PhD, director of Cardiac Electrophysiology at MHVI. "Cardiac Electrophysiology at MedStar now offers a team of 19 board-certified electrophysiologists, a regional staff of nearly 200 associates, and a geographic footprint spanning more than 22 outpatient clinical sites and 20 covered hospitals. While we routinely treat the full range of cardiac arrhythmias, AFib is by far the most common. It affects more than 5 million adults in America, and the likelihood of developing AFib may be as high as 20 percent by the age of 80."

AFib causes about 20 percent of all strokes, which tend to be relatively severe. They are twice as likely to cause death or incapacitation compared to strokes due to other causes.

"We do not understand the biologic role of the LAA fully," Dr. Eldadah notes. "But we do know that with AFib patients, blood can pool, settle, and clot in this mini-chamber, increasing the risk that the clot may travel to the brain. This is the leading cause of stroke in AFib, and the LAA may be the source of 90 percent of strokes in AFib."

Dr. Shah says, "Excluding the LAA is an important way to reduce risk. And the WATCHMAN has proven to be an effective LAA occluder for a subset of these patients, particularly those who do not tolerate blood thinners. In our years of experience, outcomes for patients are outstanding—reaching a greater than 95 percent success rate." Dr. Shah's extensive experience has made him a much sought-after trainer, serving as a WATCHMAN proctor for cardiologists nationally and internationally.

NEXT GENERATION DEVICES

Last year, with Dr. Shah as principal investigator, MHVI served as the Mid-Atlantic site in the nationwide study of the next generation LAA-occlusion device—the WATCHMAN FLX. This newer model was designed to reduce the risk of device-related thrombosis and provide greater flexibility and safety while positioning the device.



(l to r) Sarfraz Durrani, MD, Manish Shah, MD, David Strouse, MD, and (not pictured) Sung Lee, MD, are among a select few teams nationally that have experience with all three investigational left atrial appendage closure devices.

"The study is completed and final results won't be published for six months," says Dr. Shah. "However, in my personal experience, the WATCHMAN FLX handled well during implantation and was used to treat patients who are poor anatomical candidates for the first-generation WATCHMAN device. I believe the device has promise and may be able to treat a broader range of patients."

Dr. Shah is also principal investigator for clinical trials of two other intracardiac devices: the AMPLATZER™ Amulet investigational device and the Coherex WaveCrest™ LAA closure system. This research is testing the effectiveness of these newer devices against the WATCHMAN. Results for these studies are pending. Drs. Sung Lee, Sarfraz Durrani, David Strouse, and Manish Shah are among a select few teams

nationally that have experience with all three investigational LAA devices.

Next up is the potentially game-changing OPTIONS study now underway. The Hospital Center is one of a handful of sites participating in this comparison study. "It will examine how the WATCHMAN stacks up against newer blood thinners," says Dr. Shah. "Patients in one arm of the trial will undergo AFib ablation, then WATCHMAN FLX implantation. A second group will be treated with ablation and state-of-the-art blood thinners. The OPTIONS study will be the first to examine the WATCHMAN FLX's performance versus newer blood thinners for patients who prefer not to take blood thinners."

These critical studies have cemented MHVI's position as preeminent in the implantation of LAA occluder devices.

But Dr. Eldadah says these tools are just part of the bigger picture, and that—like patient care itself—a "one-size-fits-all" approach has no place in our midst.

"While these devices are proving effective for stroke prevention for more and more patients, success depends on matching patients to the treatment," he says. "We tailor therapy to each individual based on risk, lifestyle, genetics, and comorbidities. AFib requires a compartmentalized approach. We attack the arrhythmia itself with escalating tools including medication, ablation, and surgery. And we dramatically reduce stroke risk with an analogous progression of therapies optimized for each individual."

For a consult with one of our specialists in D.C., call 202-877-7685; in Baltimore, call 410-554-2807.

Next Generation Left Atrial Appendage Occlusion Devices



4 Heart Transplants in 3 Days



The evening of Monday, May 6, Maria E. Rodrigo, MD, got the call: A heart was available for a desperately sick patient. Out of another person's tragedy, someone, somewhere would receive the gift of life. It all depended upon who was the sickest of the sick at the moment. And that someone turned out to be at MedStar Washington Hospital Center.

When a heart becomes available, it sets in motion a tightly choreographed chain of events, a scenario that's executed an average of 16 times each year at the hospital's well-established Transplant Program. But MHVI's team would, unbelievably, repeat that same regimented protocol three more times during the next three days.

By the close of Thursday, May 9—only 72 hours after Dr. Rodrigo first answered the phone—a total of four MHVI patients would have new hearts.

A PROTOCOL FOR PERFECTION

"Everything about transplant is highly regimented," says Dr. Rodrigo, medical director for MHVI's Heart Transplant Program and an advanced heart failure and transplant cardiologist. "From the moment we know an organ is available, a very strict algorithm kicks in."

The process is designed to assure that the donated organ matches the potential recipient, eliminating the chance of rejection. It also helps safeguard a precious resource from going to waste when it could save someone else's life.

"By the time the team gets the call, we already know two things: the organ meets MHVI's unique criteria, and our patient is first in line," Dr. Rodrigo explains. "But we need to review imaging and other reports on the donated heart to narrow down compatibility with our specific patient—everything from the age of the deceased to the organ's size to antibodies or other conditions or circumstances."

Once satisfied that the donated heart can pass muster, Dr. Rodrigo consults with Ezequiel J. Molina, MD, surgical director of the Heart Transplant Program and LVAD Program. Only then is the heart accepted.

"There has to be agreement that this heart is a good match for our patient, otherwise it's a no-go," she says.

MOBILIZING THE TEAM

When the heart is a fit, the transplant team goes into overdrive. While MHVI's patient is called with the news he or she has been waiting to hear, Dr. Molina alerts Hassan Tetteh, MD, a heart transplant surgeon specializing in retrieval. Dr. Tetteh and surgical assistant Jill Block, RN, then head to the airport for what can be a 1,000-mile round-trip to assess the donated organ to make a final determination of its suitability. Then they harvest, pack-up, and deliver the heart to Dr. Molina and his awaiting patient.

"The ultimate decision to accept or reject the donated heart is made after the organ is evaluated in the donor OR," Dr. Molina says. "We only get one chance. I won't make one incision on our MHVI patient until I am confident we're making the right choice. We are very privileged to be part of this and cannot allow mistakes."



(Top) Maria Rodrigo, MD, (r) meets with heart transplant coordinators (l to r) Kimberly Demirhan, RN, and Alyson McCathren, RN.

(Bottom, l to r) Ezequiel Molina, MD, and Maria Rodrigo, MD, meet to discuss heart transplant candidate donor match.

THE TICKING CLOCK

Of all donated organs, hearts are the most sensitive to ischemia, with a maximum four-hour window from harvest to transplant. Once the retrieval process starts, all the pieces of the puzzle must fall into place to assure success.

That includes travel time, and such seemingly mundane matters as traffic or the weather.

"Up to 80 percent of today's organ recoveries involve air travel, in part because of the expanded United Network for Organ Sharing (UNOS) guidelines," says Dr. Tetteh. "A return trip typically includes ground transport from the deceased patient's hospital to the airport, then a private jet to the D.C. metro area and—depending upon where we land—either another ambulance or the MedSTAR helicopter to the Hospital Center. Fog, snowstorms, lightning, and accidents on either end can affect our ability to get back home in time." (See UNOS: Leveling the Field sidebar on page 9.)

Countdown to a New Heart: 4-hour Ischemic Window



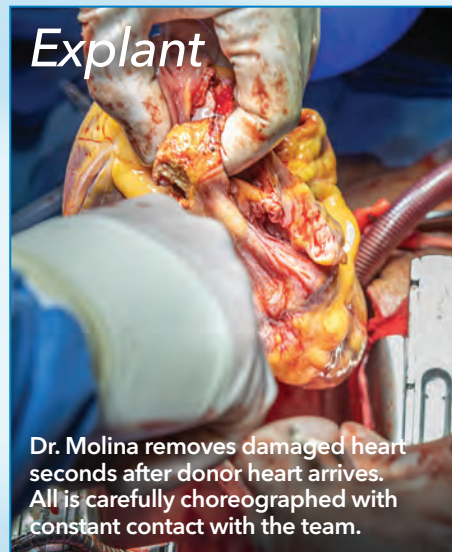
Donor Heart Harvest

Dr. Tettah harvests donor heart. Once the aorta is clamped, the 4-hour ischemic window begins.



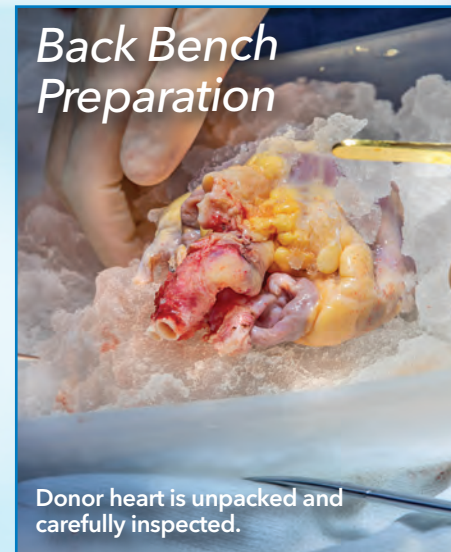
Transportation to MWHC

Donor heart is flown via airplane to Dulles Airport and met by MedSTAR air transport to deliver to MWHC.



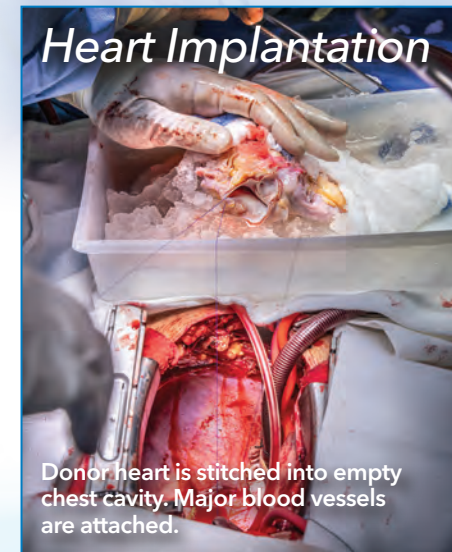
Explant

Dr. Molina removes damaged heart seconds after donor heart arrives. All is carefully choreographed with constant contact with the team.



Back Bench Preparation

Donor heart is unpacked and carefully inspected.



Heart Implantation

Donor heart is stitched into empty chest cavity. Major blood vessels are attached.



Heart Reperfusion

The new heart is allowed to beat and recover before coming off the heart-lung machine.



Implanted Heart

With new heart in place, Dr. Molina prepares to close the chest cavity.

Meanwhile, Dr. Molina and his team are getting the recipient ready to receive the precious organ. "Many times," says Dr. Molina, "the operation is technically straightforward, for example when patients have never had a heart operation. However, for some patients, this represents their second or third heart operation, including those who were bridged to transplant with an LVAD. Some of these cases can be very long and technically challenging. To minimize the time of ischemia, our objective is always to be ready to implant the second the new heart arrives in the OR."

A SECOND CHANCE

During May's marathon, four healthy donor hearts were retrieved and delivered to Dr. Molina and MHVI's transplant team. In turn, they gave new life to four very sick patients: one on May 7, two on May 8, and a fourth on May 9.

The patients subsequently spent up to a week in the CV ICU, where they were rounded on daily by the Transplant Program's unique multidisciplinary team—comprised of teams of ICU intensivists, cardiac surgeons, transplant medical cardiologists, and others—to assure the most comprehensive after-care. After another week on a regular unit to monitor for rejection, each patient was sent home or to a cardiac rehab unit for additional recovery.

Those patients are still early in the post-operative phase. However, based upon MHVI's history of managing advanced heart failure patients, pre- and post-transplant, their future is promising (see One-Year Survival chart at right).

"When presented with a donor heart, we face a huge responsibility," says Samer S. Najjar, MD, director of the Advanced Heart Failure Program at MHVI. "We have to ask if this is the right heart and for the right patient, at the right time, and be confident in our decision. Multiple lives are at stake."

ADVANCED HEART FAILURE PROGRAM:

Early Referral Promotes Longevity, Quality of Life

The MHVI Advanced Heart Failure Program is built on an array of medical and surgical interventions to help patients in Stage C or D heart failure live better and longer. Therapy ranges from advanced oral medications to inotropic agents to left-ventricular and other mechanical assist devices, to transplant, with a number of interim options along the way. To benefit the most, however, patients should be referred for an initial consult early on in the presence of one or more of the following situations:

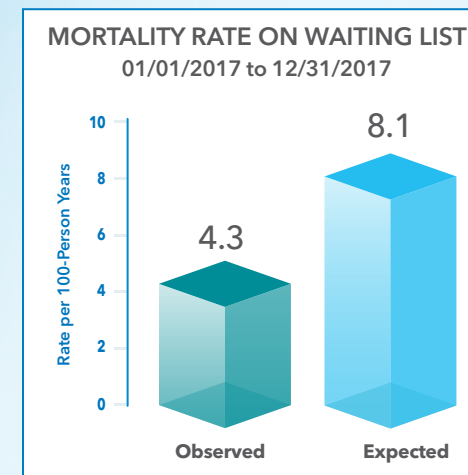
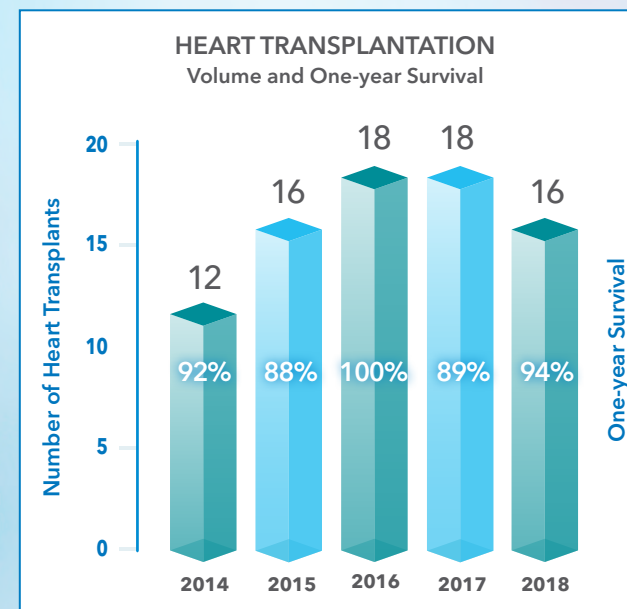
- Fluid overload, with recurrent readmissions to the hospital
- Deterioration of symptoms despite appropriate medications
- Low blood pressure
- Deteriorating kidney or liver function
- Progressive intolerance to standard heart failure medications

The program's experts have a high level of success in evaluating and managing such patients, improving quality of life and survival. (See "Waiting List Survival" chart.)

For more information or to arrange a consult, please contact 202-297-9307.



Samer Najjar, MD, Director, Advanced Heart Failure Program, MHVI



UNOS: Leveling the Field

In the United States each year, about 25,000 patients could benefit from advanced therapy (LVAD and transplant), but only about 3,000 receive a new heart. Typically, more than 25 percent of patients on the heart wait-list don't live long enough to receive one.

The United Network for Organ Sharing (UNOS) hopes its new guidelines, issued in October 2018, help address the disparity.

"Previously, hearts were first offered to transplant centers closest to where the patient died," says Samer S. Najjar, MD, director of the Advanced Heart Failure Program at MHVI. "Now, UNOS has elevated medical criteria above proximity to make sure that the sickest patients are considered first, whether they are within the region or not. So far, the new approach seems to be working."

UNOS divides the nation into 11 geographic regions. MHVI is in Region 2, which encompasses the District of Columbia, Northern Virginia, Maryland, Delaware, New Jersey, Pennsylvania, and West Virginia. Under the new system, a medically urgent patient may now receive a heart from a 500-mile radius outside of the home region.

New Iliac Branch Device Avoids Occlusion of Internal Iliac Artery in Repairing Aneurysm

Former EPA Administrator Stephen Johnson made a full recovery from the endovascular repair of his aneurysms using an iliac branch device.

The Hon. Stephen Johnson was enjoying a vacation at the beach last summer when severe pain from a kidney stone sent him to the local emergency department. That visit, it turns out, may have saved his life. A CT performed at the community hospital to better evaluate the urinary calculus revealed something far more ominous—an infrarenal abdominal aortic aneurysm, a large right common iliac aneurysm, and a small left internal iliac aneurysm.



Vascular Surgeon Ed Woo, MD, (center) performing endovascular surgery.

The results came as a surprise to Mr. Johnson, 68, a non-smoker who enjoyed an active and healthy lifestyle, and had experienced no prior symptoms. Upon returning home, the former Administrator of the U.S. Environmental Protection Agency followed up with his primary care physician and cardiologist who then referred him to Edward Woo, MD, director of MedStar Vascular Program at MedStar Heart & Vascular Institute, and chairman of the Department of Vascular Surgery at MedStar Washington Hospital Center.

Mr. Johnson met with Dr. Woo, who carefully reviewed the size and location of his aneurysms. He then recommended an endovascular repair using an iliac branch device, a relatively new technology recently approved by the FDA. The branch device preserves blood flow to both the external and internal iliac arteries in patients with common iliac aneurysms, whereas other endovascular devices would simply cover and occlude the internal iliac artery, resulting in pelvic flow disruption, which can lead to symptoms including buttock and thigh discomfort when walking.

As for Mr. Johnson, his surgery entailed a small puncture in his groin and femoral artery, which Dr. Woo used to thread the device to the location of the aneurysm. He then deployed the device in the precise location of the aneurysm, ensuring the preservation of blood flow to both the internal and external iliac arteries.

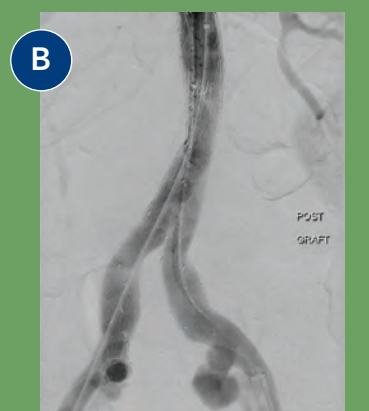
"In the past we would have to occlude the internal iliac because we didn't have the technology," says Dr. Woo. "This new technology allows us to preserve blood flow, allowing for better outcomes for patients."

For Mr. Johnson, he couldn't be more pleased.

"I can't say enough about the care, professionalism, knowledge, and skill that was involved in my case," he says. "I felt I was in the best-of-the-best hands and I am eternally grateful for Dr. Woo and the entire team involved in my care."

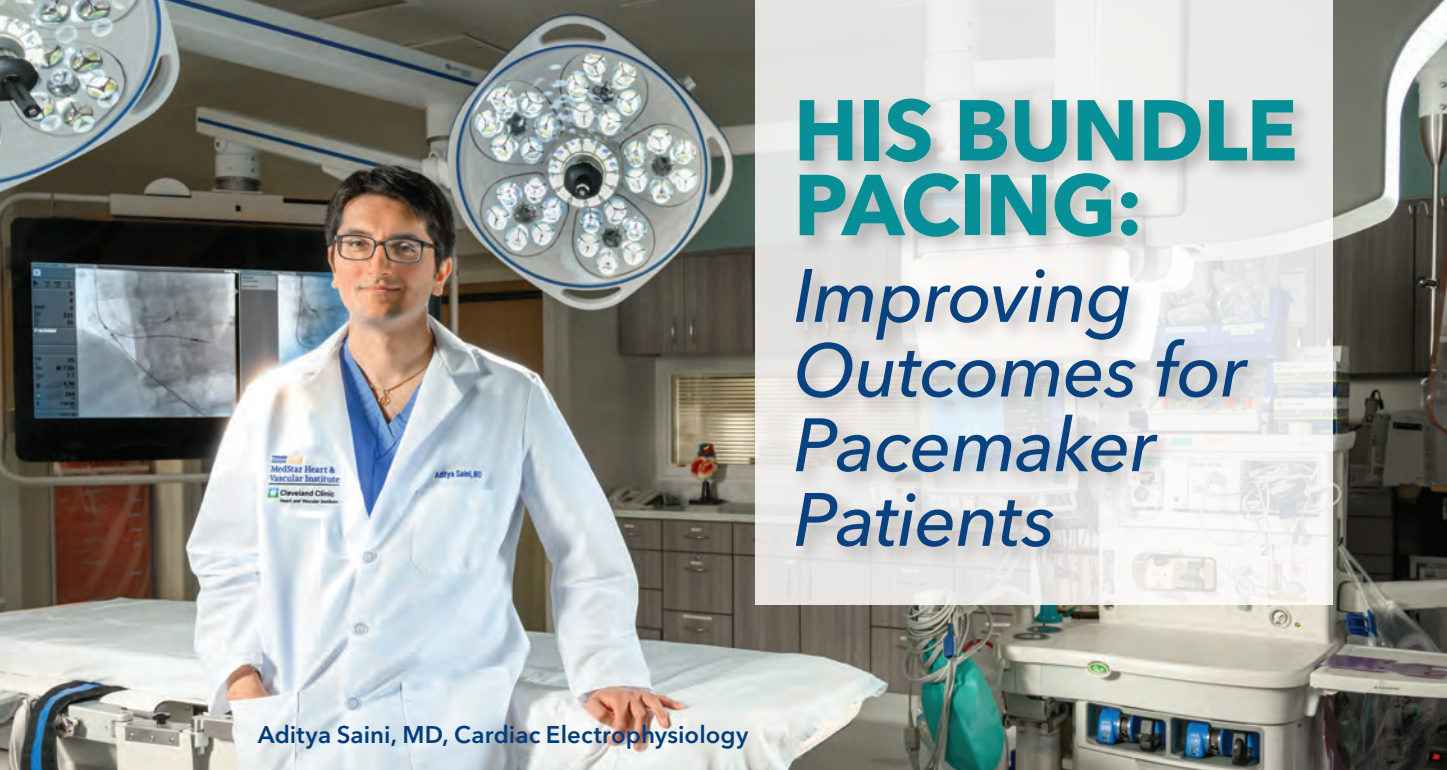
"This truly was a life-saving procedure," continues Mr. Johnson. "And the common theme among my friends and family is that I never thought I'd be so grateful to have a kidney stone."

For a consult with one of our vascular specialists in D.C., call 202-877-0275; and in Baltimore, 410-554-2950.



A-Pre-procedural 3-D CT reconstruction of Stephen Johnson's anatomy

B-Post-procedural angiogram with stent graft in place and preserved internal iliac arteries



HIS BUNDLE PACING: Improving Outcomes for Pacemaker Patients

Aditya Saini, MD, Cardiac Electrophysiology

A little more than 50 years ago, the advent of pacemakers revolutionized treatment of heart conditions. Now a different type of pacemaker installation is further improving outcomes for heart patients.

His bundle pacing (HBP) stimulates the conduction fibers of the heart so that the two bottom chambers beat in a synchronized fashion. "This method can help patients avoid long-term issues associated with traditional pacing," says Aditya Saini, MD, a cardiac electrophysiologist at MedStar Union Memorial Hospital.

In a conventional dual chamber pacemaker procedure, leads are placed in the right atrium (top) and right ventricle (bottom) chambers of the heart. After a time, the contraction of the heart's two bottom chambers may become uncoordinated due to continued stimulation on one side, which can lead to heart failure, cardiomyopathy, and atrial fibrillation.

"But," says Dr. Saini, "during HBP, the bottom chamber pacing wire is implanted directly into the bundle of His in the center of the electrical wiring of the heart. This method activates electrical impulses that stimulate both bottom chambers to beat simultaneously."

Named after pioneering cardiologist Wilhelm His, who described the anatomy of the His bundle early in the 20th century, HBP is becoming more widely adopted as physicians and patients recognize its benefits. The procedure involves an overnight stay in the hospital after pacemaker implantation. In the morning, patients go home after a check that the lead is in place and the device is functioning properly. This protocol has been standard for even traditional pacemaker implant procedures.

Dr. Saini is also involved in streamlining the follow-up for HBP, which currently involves correlating information from the pacemaker devices with simultaneously

recorded electrocardiograms. Dr. Saini has created an algorithm that helps doctors determine if His bundle pacemakers are performing properly, and even allows them to monitor and treat problems remotely.

Through a multicenter effort in collaboration with the device developer Medtronic, the new algorithm can be incorporated into the device. An article outlining how the algorithm paves the way for wider adoption of HBP was recently published in the medical journal *Circulation—Arrhythmia and Electrophysiology* with Dr. Saini as lead author. "The time-consuming and complex nature of HBP follow-up has been a challenge," he says. "Removing this barrier is a major step toward making the procedure more available and benefiting more patients."

Dr. Saini also stresses the importance of specialized training for nurses and other caregivers on the HBP devices and follow-up. Enhancements in tools and technology for the procedure are also advancing rapidly.

"Trials and research indicate that we might see a rapid increase in His pacemaker implantations in the near future," he says. "In fact, we are already starting to see that. This method is often touted as the future of cardiac pacing, and we are pleased to announce that the future is already here at MHVI."

For a consult with one of our electrophysiologists in Baltimore, call 410-554-6727; in D.C., call 202-877-7685.



profile Ameika Bush: Cardiology Hospitalist/Nocturnist The Sun Doesn't Set on Great Care

For Ameika Bush, MD, the workday begins at night—and she likes it that way. Dr. Bush is a nocturnist, a hospital-based physician who only works the evening shift.

"Nights provide an opportunity to connect and be empathetic when patients need it most," she says. "Often people's energy resources are low, and their emotions can run high. It's very rewarding to be a steady, pleasant force for them."

Dr. Bush, who is board-certified in internal medicine, is a cardiology hospitalist at MedStar Washington Hospital Center, the hospital where she was a resident. She says working night shifts allows her to help patients with serious heart conditions, and it benefits the institution as well.

"Almost always, patients come in at night because their situation is acute," Dr. Bush says. "Having a nocturnist on the schedule when patients present with urgent needs can streamline their care and provide continuity and may decrease their length of stay as well."

Her preference for night work developed from personal experience: when she was 17, a car accident caused her to spend over two months in the hospital. "It was a long road back with multiple surgeries," she recalls. "Nights were my pet peeve, because people were hurried and irritable. So now it's important to me that families encounter someone who is happy to be working at night and willing to spend time with them."

Dr. Bush's schedule also allows her to have days free to pursue her passion for community service. Her father encouraged her to give back, and her mother volunteered with the elderly—a practice Dr. Bush has continued. "So many older people are lonely and need help with errands or chores," she explains. "When you get to know them, you learn they have had amazing lives."

Dr. Bush helps create opportunities for her colleagues to contribute as well, organizing activities that benefit the shelter So Others Might Eat. Among other projects, MedStar Heart & Vascular Institute sponsors clothing and food drives and provides backpacks of school supplies for homeless children.

She is also spearheading an initiative she calls the Kindness Consult. Dr. Bush and her colleagues work together to identify patients who might particularly appreciate a kind gesture. For instance, recently she brought a stuffed animal to a 94-year-old patient with whom she'd discussed their mutual love of cats. "Little surprises like a card or balloon can make someone feel happier," Dr. Bush says.

The first few hours of her shift tend to be very hectic, she says. "There can be lots of hand-off and buzzing from the day—following up labs and scans, emergencies waiting to be dealt with. But I love the Hospital Center and its mission of patient first, and this is how I do my part to help it stay such an awesome place."



Ameika Bush, MD, spearheaded an initiative called "Kindness Consult" in which she and other staff members offer a kind gesture to patients in need, such as a card, a balloon, or a stuffed animal, which she buys at the hospital's gift shop.



Dr. Bush organizes community service activities for her colleagues, including volunteering and donating to So Others May Eat (SOME).

In Memoriam

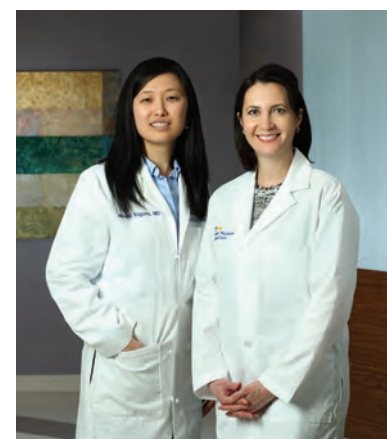
Paul J. Corso, MD, long-time chair of Cardiac Surgery for MedStar Washington Hospital Center and MedStar Heart & Vascular Institute, died Monday, June 10, at home from complications related to amyotrophic lateral sclerosis (ALS).

Throughout his more than 40 years at the Hospital Center, Dr. Corso served his patients and colleagues with skill and distinction. His visionary leadership in cardiac surgery led to the growth and standardization of practice, allowing clinicians to proactively improve care, research, and outreach, which formed one of the foundations for our alliance with The Cleveland Clinic Heart & Vascular Institute.

Dr. Corso came to the hospital in 1978 and recognized the need to develop an organized system of care that welcomed many new members to the physician team. His insistence on quality of care and adherence to safety throughout his career served as a hallmark of patient advocacy. Always forward-thinking, his efforts to develop the best patient care program led to our first Advanced Practice Provider team in the late 1980s, where nurse practitioners cared for post-op Cardiac Surgery patients. Not content to focus solely on the hospital, Dr. Corso shared his talents throughout MedStar Health, serving on the board of directors for the overall organization and also for the management board of the MedStar Heart & Vascular Institute.

Dr. Corso left a permanent, enduring imprint on the care we provide at the Hospital Center. Those of us who were his colleagues and friends will remember his compassion, his surgical expertise, and his insistence on always providing the best care.

Editor's note: In the spring issue of Cardiovascular Physician, an in-depth profile of Dr. Corso was published upon his retirement.



Misaki Kiguchi, MD, and Maria Litzendorf, MD

Vein Screening Events

Earlier this year, MedStar Health Vein Centers held a highly successful vein screening event at the World Bank. Each of the 50 participants were provided one-on-one results of the screening, followed by a lunch lecture on symptoms and treatments for venous disease by Maria Litzendorf, MD, a vascular surgeon at MedStar Health. "These screenings are a quick and accurate noninvasive method for detecting venous disease. Venous disease often goes undetected and can significantly affect one's quality of life," says Dr. Litzendorf. Carrissa Jeffers, regional supervisor for Vascular and Vein Services, organized this informative event and continues to organize additional screening events, in partnership with numerous organizations throughout the metro area. Vascular surgeon Misaki Kiguchi, MD, and Dr. Litzendorf annually participate in Nurses Week and Advance Practice Providers Week at MedStar Health, to screen hundreds of healthcare providers for venous insufficiency.

If you're interested in hosting a vascular screening, contact Carrissa Jeffers at 202-444-8824 or call 202-877-VEIN to schedule a consultation.



First Spanish Facebook Live

On Thursday, April 11, George Ruiz, MD, chief of cardiology at MedStar Union Memorial Hospital and MedStar Good Samaritan Hospital, was interviewed by marketing coordinator Carla Carigga about heart health for MedStar Health's first Spanish Facebook Live. Dr. Ruiz felt that a Spanish Facebook Live provided an opportunity to connect with the Hispanic community about heart health. Gracias, Dr. Ruiz!



A Celebration of 50 Years in Practice

Miriam Cohen, MD

More than 200 colleagues, patients, family, and friends gathered on May 8 at the Center Club in Baltimore to celebrate Cardiologist Miriam Cohen's 50 years of practice at MedStar Union Memorial Hospital. Dr. Cohen is Maryland's first female cardiologist and has been instrumental in building the cardiology program at MedStar Union Memorial. Don Hutchinson, honorary chair of the event and friend of Dr. Cohen's for more than 35 years, was joined at the podium by hospital President Brad Chambers; Chief of Ambulatory Practices George Bittar, MD; and Dr. Cohen's daughter, Sharon Cohen. Attendees were asked to make gifts in Dr. Cohen's honor to support the Outpatient Heart and Vascular Outpatient Center that will be located on the 3rd floor in the Johnston Professional Building at MedStar Union Memorial. Construction is scheduled to begin this fall.



(clockwise from top left) Brad Chambers, president, MedStar Union Memorial Hospital and MedStar Good Samaritan Hospital, and Dr. Cohen; Dr. Cohen with Stuart F. Seides, MD, physician executive director, MedStar Heart & Vascular Institute; Donald Hutchinson, honorary chair, at the podium; Dr. Cohen with Stuart Bell, MD, vice president, Medical Affairs and chief medical officer, MedStar Union Memorial Hospital and MedStar Good Samaritan Hospital

New Medical Staff

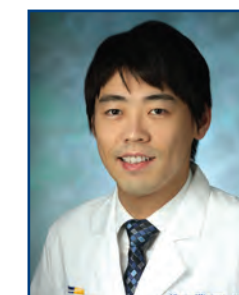


Brian Bethea, MD, is a cardiothoracic surgeon at MedStar Union Memorial Hospital, where he is the vice chief of Cardiac Surgery and chief of Outreach for the Baltimore region. He is board-certified in surgery and thoracic surgery. Dr. Bethea completed a research fellowship at The Johns Hopkins Hospital, Baltimore, Md., where he also completed residencies in Cardiothoracic Surgery and General Surgery. He received his medical

degree from the University of Oklahoma Health Sciences Center, Oklahoma City, Okla.

His special interests include minimally invasive approaches to valvular and structural heart disease, including:

- transcatheter aortic valve replacement
- transcatheter mitral valve repair and replacement
- transcatheter tricuspid valve repair and replacement



Hiroto Kitahara, MD, is a cardiac surgeon at MedStar Washington Hospital Center. Dr. Kitahara completed an advanced fellowship in Mechanical Circulatory Support and Cardiothoracic Transplant at The University of Chicago Medical Center, Chicago, Ill. He completed a minimally invasive cardiac surgery and aortic surgery fellowship at Asahikawa Medical University, Hokkaido, Japan. Dr. Kitahara also completed a mechanical circulatory support fellowship in cardiac surgery

at The University of Tokyo, Tokyo, Japan. He completed a clinical fellowship in cardiovascular surgery at Keio University School of Medicine, Tokyo, Japan, where he did his residency and received his medical degree. In addition, he completed a residency at Tokyo Dental University Ichikawa General Hospital, Chiba, Japan.

His special interests include minimally invasive approaches to surgery through robotics.



CARDIOVASCULAR Physician

Cardiovascular Physician is a publication of MedStar Heart & Vascular Institute. It is a forum to share clinical, research and teaching information in cardiology, cardiac surgery and vascular care.

Please submit editorial comments to Norma Babington, at norma.babington@medstar.net, or 202-877-0201.

Visit our website, at MedStarHeartInstitute.org.



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Anitha S. John, MD, PhD;
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