Henry Ford Health System

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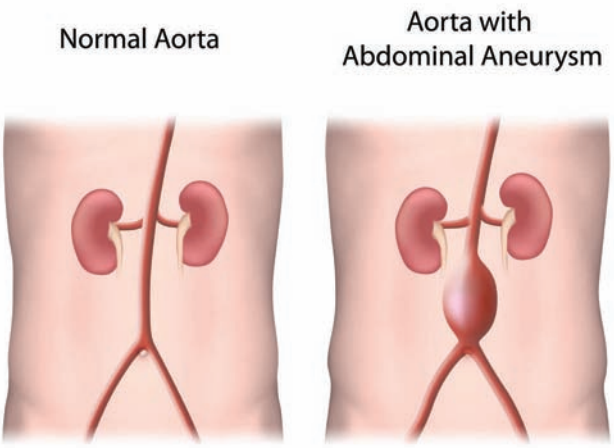
CARDIO BEAT

PUBLISHED BY HENRY FORD HEART & VASCULAR INSTITUTE

FALL 2015

Henry Ford leads the Nation in Complex AAA Repair

Surgeons at the Henry Ford Heart & Vascular Institute were among the first in the world to repair an abdominal aortic aneurysms (AAA). One of the first AAAs repaired in the United States was done at Henry Ford Hospital in 1955, and since then, Henry Ford vascular surgeons have gained extensive experience in simple and complex AAA repair through high referral volumes.



An abdominal aortic aneurysm is a bulge in the lower part of the aorta, the major blood vessel that supplies blood to the body and runs from the heart down the back and center of the chest and abdomen. A complex AAA involves the arteries supplying blood to other organs, including the liver, spleen, kidneys and intestines, and can extend up into the chest. A ruptured AAA causes life-threatening bleeding.

"Using open techniques, our mortality rate for complex AAAs is 2.9 percent, lower than the national rates of 5.7 to 8.9 percent," says Loay Kabbani, M.D., a Henry Ford vascular surgeon. "Our surgeons are highly experienced in traditional open procedures as well as new endovascular techniques."

Survival rates for patients who undergo endovascular AAA repair at Henry Ford is more than 99 percent – one of the highest in the nation. Survival rates for ruptured AAA, treated at Henry Ford Hospital, are more than 80 percent, far exceeding the national average of 60 percent.


Loay Kabbani, M.D.

"We use ultrasound and the latest CT technology with 3-D capabilities to diagnose and help treat complex AAA," says Dr. Kabbani. "We also perform routine ultrasound screenings, recommended by the U.S. Preventive Services Task Force for men aged 65 to 75 who smoke. About 80 percent of AAAs are smoking related."

The Henry Ford Heart & Vascular Institute is located at Henry Ford Hospital with satellites at Henry Ford West Bloomfield Hospital, Henry Ford Wyandotte Hospital, and Henry Ford Medical Center – Fairlane.

To refer a patient with simple or complex AAA or for AAA screening, call the Henry Ford Heart & Vascular Institute at 1-844-725-6424.

INSIDE

STRUCTURAL HEART

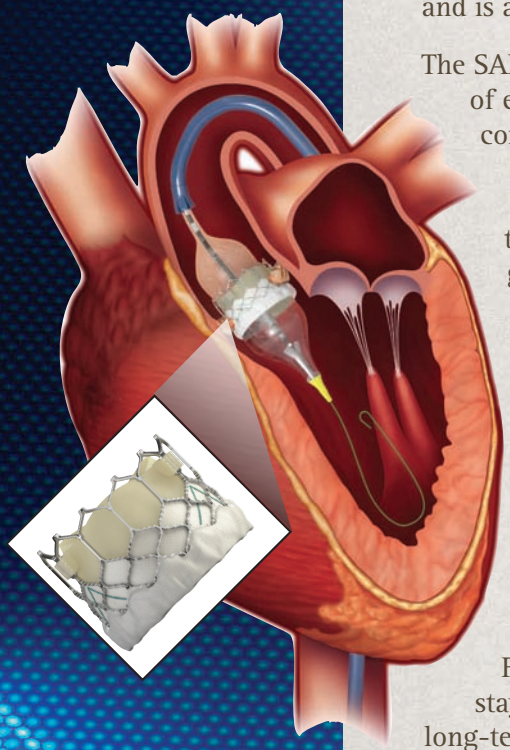
Edwards SAPIEN 3™ Transcatheter

Advanced Aortic Heart Valve

The U.S. Food and Drug Administration (FDA) recently approved the most advanced transcatheter aortic heart valve – the Edwards SAPIEN 3™ with the Commander Delivery System. For patients with aortic valve stenosis, Transcatheter Aortic Valve Replacement (TAVR), has become an alternative to surgical aortic valve replacement.

William O'Neill, M.D.

Today, this procedure is life altering for those who cannot undergo open-heart surgery to replace their aortic valve, now patients can receive a stronger and better valve during the procedure. "The valve is not only a lower profile but it also predictably inflates and deploys," says William O'Neill, M.D., medical director, Structural Heart program at Henry Ford Hospital and is a consultant to Edwards, Medtronic and St. Jude.



The SAPIEN 3™ valve builds on manufacturer Edwards Life Sciences' decades of experience in the development of tissue heart valves; that experience contributed to the Edwards SAPIEN 3™ Transcatheter Heart Valve. "The valve is designed to minimize paravalvular leak with the use of an outer 'skirt.' Its ultra-low delivery profile increases the number of patients who can be treated via the femoral artery access. The enhanced frame design and cell geometry, including cobalt chromium, improves high radial strength," says Dr. O'Neill. The valve uses matching bovine pericardia tissue and the leaflet shape optimizes the hemodynamics and durability.

The advantages of the SAPIEN 3™ are its strength, frame material and wide strut angles which provide fatigue resistance and radial strength for circularity. When studied the SAPIEN 3™ has proven its strength in the various sizes to accommodate a range of patient anatomies. Study results found the 23mm valve showed a strength increase from 1.3 to 1.4. The 26mm valve showed the strength increase from 1.1 to 1.4, the most significant increase, and the 29mm valve increased from 1.2 to 1.3.

Fewer vascular complications, earlier ambulation and shorter length of stay in the hospital, in addition to elimination of paravalvular leak will make long-term outcomes better for the patient.

For more information about the Edwards SAPIEN 3™ delivery system, or to refer a patient, please call the Center for Structural Heart Disease at (855) 518-5100.

Live from Henry Ford: Ask Me Anything!

Have you experienced REDDIT yet? If not, it's easy to sign up for a free membership by visiting **www.reddit.com/r/science.** This free service provides an opportunity to interact with nationally renowned physicians.

Go to http://ow.ly/SCwk7 between 1 and 3 p.m., EDST, on Thursday, Oct. 22 where Adam Greenbaum, M.D., co-director of the Center for Structural Heart Disease at Henry Ford Hospital and Robert Lederman, M.D., an interventional cardiologist at the National Heart, Lung, and Blood Institute will be answering questions about the transcaval procedure, which they are internationally known for pioneering and teaching. You are invited to ask questions as early as 8 a.m., then check back later for answers. Follow us on Twitter for updates on the chat – @HenryFordNews.

RESEARCH

Genetic Mutation Studied In Transthyretin Cardiac Amyloidosis

Henry Ford Hospital *is the only site in* Michigan currently screening for a study of a potential treatment of a hereditary form of amyloidosis called transthyretin amyloidosis, which can affect the heart and nerves.

Patients with heart failure and other specific characteristics of cardiac amyloidosis will be screened for a particular genetic mutation associated with transthyretin amyloidosis.

This randomized study will look at the effects of a treatment drug – Revusiran versus placebo for TTR mutation cardiac amyloidosis. Patients will have a 2:1 chance of receiving Revusiran vs. placebo over 18 months. Revusiran is a small, interfering RNA (siRNA) that targets the mutant TTR gene, essentially turning it off so that no TTR amyloid protein are produced.

For patients to participate, those suspected to have TTR cardiac amyloidosis or a prior diagnosis of TTR amyloidosis as a cause of heart failure may qualify for the study. Patients with AL amyloidosis are excluded.

Please contact Research Coordinator Blake Vostrirancky at (313) 492-0524 or Primary Investigator Karthik Ananthasubramaniam, M.D., director of Nuclear Cardiology and Echocardiography at (313) 916-4420 for further information.

STAFF UPDATE

Praveen Chandar Balraj, M.D., RPVI

Senior Staff Surgeon

Praveen C. Balraj, M.D., RPVI

MEDICAL SCHOOL EDUCATION:
Coimbatore Medical College, India

POST-GRADUATE TRAINING:
Henry Ford Hospital (MI) – Vascular Surgery (Fellow)
Mercy Catholic Medical Center (PA) – General Surgery (Chief Resident and Resident)
National Health Service, Royal College of Surgeons (England) – General Surgery

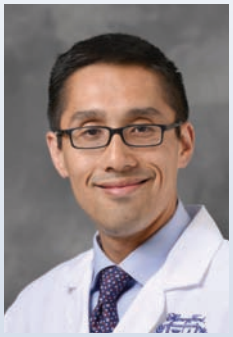
BOARD CERTIFICATION:
Board eligible in General Surgery
Board eligible in Vascular Surgery

AREAS OF CLINICAL EXPERTISE INCLUDE:
Dr. Balraj's areas of clinical interest include minimally invasive and endovascular therapies for aortic and peripheral vascular disease and special interest in vascular access for dialysis. He is fluent in South Indian languages.

PUBLICATIONS:
Dr. Balraj has presented and authored articles in numerous professional journal publications and authored a book chapter on hybrid thoracoabdominal aortic aneurysm repair.

Marvin H. Eng, M.D.

Structural Heart Disease Fellowship Director



Marvin H. Eng, M.D.

MEDICAL SCHOOL EDUCATION:
Wayne State University School of Medicine, Detroit, MI

POST-GRADUATE TRAINING:
University of Colorado Health Sciences Center (CO) – Internal Medicine
University of Colorado Health Sciences Center (CO) – Cardiology
Scripps Green Hospital (CA) – Cardiology, Interventional (Fellowship)

BOARD CERTIFICATION:
American Board of Internal Medicine
American Board of Internal Medicine: Cardio Interventional
American Board of Internal Medicine: Cardiovascular Disease
Society of Vascular Medicine: Peripheral Vascular Intervention

AREAS OF CLINICAL EXPERTISE INCLUDE:
Dr. Eng specializes in minimally invasive heart procedures such as catheter-based treatment of advanced heart disease, including heart valves, congenital heart defects, heart blood vessels (coronary artery disease) and the use of tiny heart pumps inserted through catheters. He was integral in evaluating the effectiveness of the most advanced transcatheter aortic heart valve to date, approved for use in the U.S. in June by the FDA.

PUBLICATIONS:
Dr. Eng has authored numerous professional journal publications with a focus on chronic hypertension, left atrial appendage closures, minimally invasive percutaneous techniques, structural heart disease interventions, self-expanding stents, and aortic valvuloplasty.

To connect with a Henry Ford physician, call:

Heart & Vascular Institute

1-877-434-7470

Center for Structural Heart Disease

1-855-518-5100

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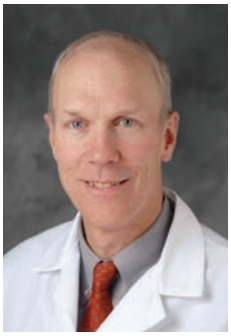
RESEARCH

CREST-2 Trial: Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis



Alexander Shepard, M.D.

CREST-2 is a NIH-funded study designed to determine the optimal management of patients with asymptomatic carotid stenosis ≥ 70 percent. Eligible patients will be randomized to intensive medical management or intensive medical management plus revascularization with either carotid endarterectomy or carotid stenting.

Intensive medical management will include anti-platelet therapy and protocol-driven modification of cerebrovascular risk factors. Proceduralists will be credentialed to ensure only the most skilled operators will treat patients within the trial. The primary endpoint is stroke and death in the first 30 days and ipsilateral stroke thereafter up to four years.

Enrolling participants must be:

- 35 years of age and older
- asymptomatic (no history of stroke or TIA ipsilateral to the stenosis within 180 days of randomization)
- carotid stenosis ≥ 70 percent.

Study participants will continue to see their primary physicians for follow-up. CREST-2 study personnel will communicate frequently with primary care providers to ensure continuity of care.

Henry Ford Health System is one of up to 120 medical centers that will be participating in the study. The study is seeking 2,480 participants across the U.S. and Canada.

To find out if your patient is eligible for this study, contact Henry Ford Health System CREST-2 Primary Investigator Alexander Shepard, M.D., by email: ashepar2@hfhs.org or call (313) 916-3155, or Research Coordinator/Lead Nurse Crystal Bradley, email: cbradle4@hfhs.org, or call (313) 916-1011.