Mount Sinai Presents Groundbreaking Findings on Heart Procedure

In a groundbreaking, multi-centered randomized trial published in The New England Journal of Medicine, researchers, co-led by Mount Sinai’s David H. Adams, MD, determined that a catheter-based heart procedure to replace an aortic valve was superior to surgery for patients who have symptomatic severe aortic stenosis with increased risks. The findings, based on a clinical trial involving 795 patients treated at 45 institutions across the nation, were simultaneously presented by Dr. Adams at the 63rd Annual Scientific Session of the American College of Cardiology on Saturday, March 29, and represent a major advance for heart patients who are at high risk for surgery.

An estimated 100,000 individuals in the United States are affected by aortic stenosis, which results when the aortic valve narrows and is unable to open and close properly, causing diminished blood flow between the heart and body, and weakening heart function. Standard treatment for

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New Discoveries in Triple-Negative Breast Cancer

Two newly identified proteins that appear to play a critical role in the development of aggressive triple-negative breast cancer (TNBC) could also lead to potential new treatments, according to scientists at Icahn School of Medicine at Mount Sinai, the University of Kentucky, MD Anderson Cancer Center, and several medical centers in China.

Their findings, published in the February 10, 2014, issue of Cancer Cell, show how two key proteins activate the genes required for the rapid growth of TNBC cells. TNBC is particularly virulent, affecting roughly 15 percent of breast cancer patients; it spreads quickly and has a high likelihood of recurrence. Patients have limited treatment options.

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severe symptoms is surgical replacement of the aortic valve.

The Medtronic CoreValve® U.S. Pivotal Trial tested the safety and effectiveness of the self-expanding CoreValve prosthesis, which is folded in a catheter and guided through arteries and through the aorta to the site of the diseased valve. It is then deployed to replace the function of the diseased valve. The procedure often requires only a small puncture in the leg under local anesthesia and takes a few hours.

“Our key finding—that transcatheter aortic-valve replacement (TAVR) with CoreValve was associated with a higher rate of survival in patients who are at high risk for surgery—has significant and broad implications,” says Dr. Adams, the Marie-Josée and Henry R. Kravis Professor and Chair of the Department of Cardiothoracic Surgery. “We have created a new evidence base that will impact future recommendations and guidelines for patients with increased surgical risk requiring aortic valve replacement.”

Dr. Adams served as the national co-principal investigator of the clinical trial with Jeffrey Popma, MD, Professor of Medicine at Harvard Medical School.

Specifically, the study revealed that the rate of death from any cause after one year for the TAVR group was 14.2 percent compared to 19.1 percent for the surgically treated patients, representing a 26 percent survival advantage with TAVR. Secondary analyses of data indicated that patients in both groups had significant improvements in quality-of-life scores, and the TAVR group did not experience an increased risk of stroke. However, adverse events, including significant paravalvular regurgitation and the need for a permanent implantation of a pacemaker, were more frequent in the TAVR group.

This was the first clinical trial to suggest superiority of a transcatheter aortic-valve procedure compared to surgery. Says Dr. Adams: “The results are particularly impressive considering none of our heart teams had prior experience with TAVR before the start of the trial.”

A Patient Gives Back to the Recanati/Miller Transplantation Institute

As a college sophomore, Joanna Adler was unexpectedly diagnosed with a rare illness called Wilson’s disease, and underwent an urgent liver transplant at The Mount Sinai Hospital. Today, 16 years later, Ms. Adler remains close to her physician, Leona Kim-Schluger, MD, the Sidney J. Zweig Professor of Medicine at Icahn School of Medicine at Mount Sinai and Associate Director of the Recanati/Miller Transplantation Institute. Ms. Adler is also a strong supporter of Mount Sinai, which she credits for saving her life.

Recently, Ms. Adler—a Los Angeles-based documentary filmmaker, law student, and marathon runner—helped fund the complete renovation of the Recanati/Miller Transplantation Institute’s outpatient center located on the 12th floor of the Mount Sinai Doctors Faculty Practice at 5 East 98th Street. The newly named Joanna Adler Outpatient Center is a warm, open space with abundant natural light and comfortable seating. An updated lab and new private educational suite further enhance the outpatient experience.

Last year, Ms. Adler endowed a chair for Sander Florman, MD, Director of the Recanati/Miller Transplantation Institute, who is the Charles Miller, MD Professor of Surgery. The chair honors Charles Miller, MD, former Director of the Recanati/Miller Transplantation Institute.
The Mount Sinai Hospital is the first in New York City to open an observation unit for Emergency Department (ED) patients who do not meet criteria for inpatient admission, yet require further short-term evaluation and treatment before they can be discharged safely. The 20-bed Rapid Evaluation and Treatment Unit (RETU) is adjacent to the ED and is staffed by physicians, physician assistants, nurse managers, nurses, case managers, and social workers who work as a team to better assess and coordinate patient care. Similar units will be rolled out at hospitals throughout the Mount Sinai Health System in the coming months.

The RETU is most appropriate for patients who, after evaluation by an ED attending, require time for further diagnostic testing and/or treatment in order to determine whether they will require inpatient admission. This includes patients who need continued evaluation for a transient ischemic attack, for example, a heart attack, unstable angina, or hypoglycemia. It also benefits patients who need to be monitored closely as they receive short-term treatment for conditions such as asthma, or those who need coordinated care after discharge.

“This unit provides us with dedicated space and resources to more thoroughly evaluate and treat conditions that historically have required a short-stay hospital admission,” says Luke Hermann, MD, Director of Observation Services for the Health System. “By using standardized evaluation and treatment protocols, and placing an emphasis on early and aggressive care coordination, we are able to address complex social service needs when they exist and provide a level of post-discharge care that will truly benefit all of our patients.”

The RETU is staffed 24 hours a day. It is not meant to care for patients who need or have had a procedure, or ED patients in transition to an inpatient bed. Typically, approximately 80 percent of patients cared for in the RETU will be medically stable for discharge within 24 hours, while the remaining 20 percent will require inpatient admission for further hospital care. More than 600 patients have been evaluated in the RETU since it was created in mid-February.

“Providing high-quality, efficient, and patient-centered observation services throughout our Health System is critical to our ability to manage populations of patients over time in a fee-for-value system,” says Jeffrey Farber, MD, MBA, Vice President, Hospital Services Utilization, Mount Sinai Health System. “Construction is already under way for observation units at Mount Sinai Beth Israel, Mount Sinai St. Luke’s, and Mount Sinai Roosevelt.”

New Discoveries in Triple-Negative Breast Cancer (continued from page 1)

“What we found is that triple-negative breast cancer is inflammation-associated cancer. Its rapid tumor growth and metastasis is heavily dependent upon specific gene-activation proteins,” says lead researcher Ming-Ming Zhou, PhD, of Mount Sinai. Dr. Zhou is the Dr. Harold and Golden Lamport Professor in Physiology and Biophysics, and serves as Chairman of the Department of Structural and Chemical Biology, and Co-Director of the Experimental Therapeutics Institute at Icahn School of Medicine at Mount Sinai.

The researchers found that by using a small-molecule compound they had designed to block the gene-activation mechanism in the two newly discovered proteins, they were able to stop the driving force behind the tumor growth in a mouse model of TNBC.

Dr. Zhou says a greater understanding of the cause of TNBC and development of a new targeted therapeutic agent based on this discovery could stop the disease from spreading or recurring. Through continued study, he hopes that human clinical trials of a new small-molecule compound could begin in another two to three years.

Triple-negative breast cancer derives its name from the lack of expression of three key cell-surface receptors: the estrogen receptor (ER), the progesterone receptor (PR), and human epidermal growth factor receptor (HER2/Neu). These cell-surface receptors allow hormones to bind to them, and are important in signaling between cells, as well as within cells.

The disease is primarily concentrated in women of African American and Hispanic descent, younger women, and women who have BRCA1 mutations.
Events

Translational Genomics and Discovery Medicine
That is the focus of the 6th Annual CePORTED (Center for Patient-Oriented Research, Training, Education, and Development) Symposium, featuring keynote speaker Christopher Austin, MD, Director, National Center for Advancing Translational Sciences, National Institutes of Health. To register, go to www_icahn.mssm.edu/ceported-symposium.

Wednesday, May 14
8:15 am – 1 pm
The Mount Sinai Hospital Campus
Hess Center, Davis Auditorium

Sponsored by Conduits – Institutes for Translational Sciences and Icahn School of Medicine at Mount Sinai

Grand Rounds
HIV: Spencer Cox Center for Health
Douglas T. Dieterich, MD, Professor of Medicine (Division of Liver Diseases), presents, “HCV: Beginning of the End, or the End of the Beginning?”

Monday, April 21
Noon – 1 pm
Mount Sinai Roosevelt
Conference Room B
Teleconferenced to
Mount Sinai St. Luke’s Muhlenberg, Fourth Floor

Grand Rounds
Pathology
Lan Zhou, MD, PhD, Director, Neuromuscular Pathology, presents “Inflammatory Myopathies and Mimics.”

Thursday, April 24
11:45 am – 12:45 pm
The Mount Sinai Hospital Campus
Hess Seminar Room A

Grand Rounds
Cardiology
Timothy Church, MD, PhD, MPH, Professor of Preventive Medicine, Louisiana State University, presents “Optimizing Exercise Prescription in the Clinic.”

Wednesday, April 30
8 – 9 am
Mount Sinai St. Luke’s Muhlenberg, Fourth Floor
Teleconferenced to
Mount Sinai Roosevelt Conference Room 10B

Grand Rounds
Medicine
Lisa Christopher-Stine, MD, MPH, Co-Director, Johns Hopkins Myositis Center, presents “Statin Myopathy in Evolution: Exploring the Link to Autoimmunity.”

Tuesday, April 15
8:30 – 9:30 am
Mount Sinai Israel Podell Auditorium

Town Hall: Integration Update
Six Town Hall meetings, scheduled during the coming weeks throughout the Mount Sinai Health System, will provide a forum for an integration update. Bring your colleagues and your questions to these lively, open exchanges with Health System and hospital leadership.

Mount Sinai Roosevelt
Monday, April 21
5 pm
Second floor
Conference Room B

Mount Sinai St. Luke’s
Wednesday, April 30
5 pm
Muhlenberg Auditorium
Fourth Floor

Mount Sinai St. Luke’s
Monday, April 21
5 pm
Muhlenberg Auditorium
Fourth Floor

Mount Sinai Beth Israel
Thursday, April 24
11 am
Bernstein Pavilion
Podell Auditorium

The Mount Sinai Hospital
Mount Sinai Queens
Wednesday, May 7
10 am
Joint Town Hall at
The Mount Sinai Hospital
Stern Auditorium

The Mount Sinai Hospital
Mount Sinai Queens
Wednesday, May 15
1 pm
1550 East 52nd Street
between Kings Highway and Avenue M

New York Eye and Ear Infirmary of Mount Sinai
Tuesday, May 13
2 pm
Cafeteria, Lower Level

Holiday Services
Passover – Pesach
Monday, April 14, Erev Pesach
7:15 pm: Minchah/Ma’ariv
Tuesday, April 15
8:30 am: Shacharit, Birkat Ha Tal
7:55 pm: Mincha/Ma’ariv
Wednesday, April 16
8:30 am: Shacharit
8:15 pm: Mincha/Ma’ariv
Saturday, April 19
Shabbat Chol HaMoed
8:30 am: Shacharit
10 am: Shir Ha Shirim
6 pm: Mincha
8:30 pm: Ma’ariv
Sunday, April 20
7:15 pm: Mincha/Ma’ariv
Monday, April 21
8:30 am: Shacharit
7:45 pm: Mincha/Ma’ariv
Tuesday, April 22
8:30 am: Shacharit
11 am: Yizkor
8:35 pm: Ma’ariv

The Mount Sinai Hospital
Guggenheim Pavilion
Peck Jewish Chapel

Good Friday and Easter
April 18, Good Friday
Noon: Catholic Mass
April 20, Easter Sunday
11:15 am: Catholic Mass
1:30 pm: Interdenominational Service
Guggenheim Pavilion
Hatch Interdenominational Chapel

Mount Sinai
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