

CARDIAC | monitor

FOR OUR PHYSICIANS

Sacramento, CA

INNOVATIONS IN MINIMALLY INVASIVE CARDIAC SURGERY

Mercy Heart & Vascular Institute is a leader in cardiac surgery on the West Coast, with some of the highest volumes and best outcomes in California. Our experienced cardiac surgeons perform very complex procedures with excellent results. (See below for Quality Awards.)

Some of the latest cardiac innovations are minimally invasive surgical options, which surgeons at Mercy General Hospital are using successfully to treat:

- Complex aortic aneurysm
- Valve replacement and repair
- Atrial fibrillation

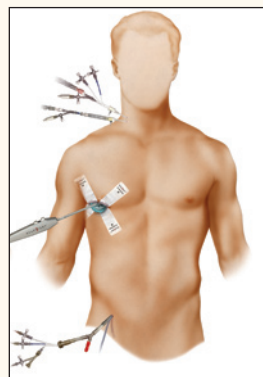
Complex thoracic aortic aneurysms

New advances are enabling minimally invasive surgery to treat thoracic aortic aneurysms. Aortic specialist Kapil Sharma, MD, has extensive experience repairing complex aortic aneurysms through endovascular surgery and brings this technique to the Sacramento area.

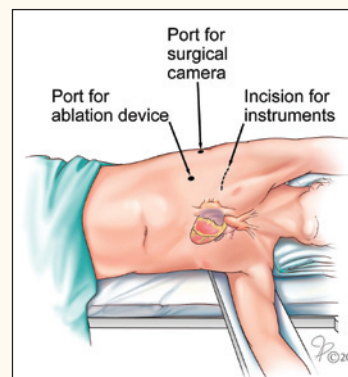
“What was traditionally only offered as a large open procedure can now be done through a small incision in the groin and insertion of a stent,” Sharma says. “We are able to go all the way up to the aortic arch and avoid an extended thoracotomy. Our success rates are high, with minimal



AORTIC STENT



VALVE REPAIR



MINI MAZE

complications. This is a real game changer in this field.”

In the procedure, the surgeon inserts a covered stent through the femoral artery and advances it over a guide-wire up into the aorta. The stent-graft is deployed at the site of the aneurysm and remains in place with radial force. The graft reinforces the weakened section of the aorta to prevent rupture of the aneurysm. Patients with aneurysms extending into the arch can also be potential candidates for this technique.

Valve replacement and repair

Mercy has also made tremendous progress in the past year with minimally invasive aortic and mitral valve repair and

(continued on next page)

CARDIAC MONITOR— a resource for you

Distribution of *Cardiac Monitor* is provided as an educational service. Mercy respects your privacy. If you prefer not to receive any further communications from us, please send a brief note to Mercy Heart & Vascular Institute, 3939 J Street, Suite 220, Sacramento, CA 95819, and include the mailing label from this newsletter if possible. It may take up to 30 days to process your request.

Quality Awards

Mercy General Hospital has received national recognition for its excellence in cardiac care. Quality awards include:

- Society of Thoracic Surgeons, top “3 star” rating 2008
- Blue Distinction Center for Cardiac Care, 2006-2010 (Blue Cross/Blue Shield)
- Top 100 Cardiovascular Hospital, 2006-07
- Top 100 Hospital, 2006
- Premier Award for Quality, 2008-09
- California Coronary Artery Bypass (CCORP) Report, 2009 – one of five hospitals in California that achieved “better than expected” mortality rate. California average, 2.2%; Mercy General average, 0.64%



Mercy

A member of CHW

MERCY HEART & VASCULAR INSTITUTE

Cardiac Surgeons

John R. Dein, MD
Michael Ingram, MD
Robert Kincade, MD
Richard J. Kaplon, MD
James Longoria, MD
Allen S. Morris, MD, Medical Director
Kapil Sharma, MD
Frank N. Slachman, MD
Henry L. Zhu, MD

Cardiac Electrophysiologists

Arash Aryana, MD
Peter Jurisich, DO
Padraig G. O'Neill, MD, Medical Director
Stephen I. Stark, MD
Larry J. Wolff, MD

Cardiologists

Arvin Arthur, MD
Richard Axelrod, MD
Philip M. Bach, MD
Scott B. Baron, MD
David A. Bayne, MD
Raye L. Bellinger, MD
Larry E. Berte, MD
Rohit Bhaskar, MD
Dennis R. Breen, MD
Alan R. Cabrera, MD
Jack W. Casas, MD, PVI Co-Chair
Michael L. Chang, MD, Medical Director
Kenny Charn, MD
John Chin, MD
Howard Dinh, MD
Mark H. Eaton, MD
Georg Emlein, MD
Daniel C. Fisher, MD
Melvin D. Flamm, Jr., MD
James M. Foerster, MD
Michael Fugit, MD
Kathryn Glatter, MD
Jonathan A. Hemphill, MD
Stanley C. Henjum, II, MD
Elizabeth Hereford, MD
Mehrdad Jafarzadeh, MD
Ajay Joshi, MD
Roy F. Kaku, MD
Brian Kim, MD
Joseph A. Kozina, MD
Edmond Lee, MD
Timothy Y. Lee, MD
Lee-Tzu Lin, MD
Reginald I. Low, MD
David J. Magorien, MD
Nick Majetich, MD
Walt Marquardt, MD
Harvey J. Matlof, MD
Malcolm M. McHenry, MD
Stephen L. Morrison, MD
M. Michele Penkala, MD
Phuong-Anh Pham, MD
Jagbir S. Powar, MD
David K. Roberts, MD
Raymond Rozema, MD
Robert Schott, MD
Sailesh N. Shah, MD
Karanjit Singh, MD
Kevin L. Stokke, MD
Rajendra S. Sudan, MD
Patricia A. Takeda, MD
Dan W. Tsoi, MD
Daniel D. Vanhamersveld, MD
William Vetter, MD
David E. Woodruff, MD
Zi-Jian Xu, MD

Mercy Cardiovascular Services

Doris Frazier, RN, MS, Vice President

INNOVATIONS IN MINIMALLY INVASIVE CARDIAC SURGERY

(continued from page 1)

replacement. "Patients are often curious about their suitability for minimally invasive valve surgery," says Allen Morris, MD, a Mercy cardiac surgeon who specializes in the technique. "A majority of isolated valve operations are likely to be candidates for a minimally invasive approach and this will always be considered within the scope of the patient's operative needs."

With the minimally invasive method, a small incision is made on the right side of the chest (about 2-3 inches), in addition to several small incisions in the chest wall (about ½ centimeter each). The operation on the valve is essentially the same as traditional open heart surgery, with the patient remaining on the heart/lung machine. The difference is the rapid rate of recovery afforded by a small incision compared to a standard sternotomy. The greatest advantage is there is less trauma to the patient, says Morris. Surgeons try not to manipulate the ribs and there is no bone to heal, while a sternotomy requires a full incision of the breastbone averaging up to 10 inches in length and a much longer healing period.

Atrial Fibrillation

The minimally invasive Maze procedure (or Mini Maze) offers patients the option of ablation therapy without having to undergo major open surgery.

"This operation has evolved as we have learned more about A-Fib and how to treat it," says cardiac surgeon Richard Kaplon, MD, who performs the Mini Maze. "For up to 80% of patients who have intermittent or even more persistent A-Fib, it has been a successful procedure for restoring heart rhythm and getting them off medications." As importantly, he adds, the procedure removes or closes off the left atrial appendage, which is a primary source for developing blood clots in the heart,



Kapil Sharma, MD (center), is joined by Peter Callahan, MD (left), and John Mallery, MD, for his presentation on "Advanced Aortic Treatments: Endovascular Procedures in Complex Aortic Aneurysms" at Sierra Nevada Memorial Hospital on May 5.

potentially leading to stroke. "This is a significant advance for most patients with A-Fib."

In the Mini Maze, the surgeon accesses the heart by making small incisions between the ribs on each side of the chest, through which a tiny camera and video-guided instruments are inserted. This provides access to the heart without dividing breast bone or putting patients on a heart lung machine. As in the open chest procedure, the surgeon uses an energy source to make precise scars, or ablations, on the heart to block the irregular electrical impulses that cause A-Fib.

Benefits of less invasive approaches

The goal of all minimally invasive procedures is to lessen post-operative pain, minimize scarring and reduce recovery times compared to traditional open procedures. There is less risk for morbidity than with large, extensive procedures and patients can return to work and their lifestyles sooner.

For more information, call the Mercy Heart & Vascular Institute at 916.733.6966. ♥

NEW EVIDENCE OF INTERACTION BETWEEN CLOPIDOGREL AND PROTON PUMP INHIBITOR

By Tanya Hodge, RN, MS, CNS, CCRN, and James Palmieri, PharmD

Clopidogrel (Plavix®) is often used to prevent thrombosis in those at risk. Patients exhibit varying responses to clopidogrel administration for reasons that are not fully known. There are several laboratory tests available to measure platelet reactivity after administration of clopidogrel, but they are not routinely used.

Several studies have been done which suggest that proton pump inhibitors (PPIs), given to patients to reduce the risk of gastrointestinal bleeding, may decrease the inhibitory effect of clopidogrel on platelet aggregation. In a double-blind, placebo-controlled trial (n=124), Abgrall and Boschat compared the platelet reactivity of a group given clopidogrel plus placebo vs. a group given clopidogrel plus omeprazole for seven days after coronary stent implantation. The study showed that omeprazole significantly decreased the inhibitory effect of clopidogrel on platelet aggregation.

To evaluate the clinical significance, Ho, et. al. performed a retrospective cohort study of patients with acute coronary syndrome (ACS) taking clopidogrel after discharge. Of these 8,205 patients, 63.9% were prescribed a PPI at discharge and/or during follow-up. Using multivariable analysis, use of clopidogrel plus PPI was associated with increased risk of death or rehospitalization for ACS.

More research is needed to determine whether or not this is a class effect. In the meantime, consider whether your patient requiring clopidogrel really needs acid suppression. If so, H2 blockers might be an alternative or, if absolutely necessary, PPIs other than omeprazole may be used. In this case, a platelet reactivity test may be warranted. ♥

References

Abgrall, J. & Boschat, J. J. Am. Coll. Cardiol. 2008;51;256-260.

Ho, P. M., Maddox, T. M., Wang, Li, et. al. JAMA 2009;301(9);937-944.



Vascular Screenings

Do you have patients at risk for vascular disease? They may be if any of these factors apply:

- Diabetes
- Smoking
- High blood pressure
- High cholesterol
- Over age 50
- Family history of heart disease

Three vascular health screens at the Mercy Heart & Vascular Institute can detect issues before they strike. Screens include: stroke/carotid artery ultrasound, ankle-brachial index and abdominal aortic ultrasound. The cost is \$95 for all three screens or \$45 each, and there are no referral forms or insurance required.

Vascular HealthScreen is offered at Mercy General Hospital, Mercy San Juan Medical Center and Woodland Healthcare.

To refer a patient, call 916.733.6245.

Mercy Heart & Vascular Institute also offers **Coronary Calcium Scoring**, a non-invasive radiologic examination of the coronary arteries.

The cost is \$325. Call to make an appointment for your patient: Mercy General Hospital, 916.733.6961; Sierra Nevada Memorial Hospital, 530.274.6262.

Laser Coronary Training

The Excimer Laser Coronary Application Training Program at Mercy General Hospital with Jack Casas, MD, has been highly successful and has helped cardiologists expand their percutaneous coronary intervention (PCI) treatment options for patients with coronary artery disease. As a result, this has helped the attending physicians build their respective cardiovascular practices significantly.



JACK CASAS, MD

A snapshot:

- Four courses since December 2008
- Four to six trainees have attended each course
- A total of 22 physicians have attended the course from two countries, seven states and 16 different hospitals (including attendees from Texas, Alaska, Missouri and British Columbia)

To sign up for the course, contact the local Spectranetics representative: Stephan Schafeitel, Stephan@spnc.com

Referral Resources

The following Mercy programs are available for physicians to refer their patients for help managing heart disease.

Heart Smart and CHAMP®	916.564.2880
Anticoagulation Clinic	916.733.5350

Cardiac Conditioning:	
Mercy General Hospital	916.453.4521
Mercy San Juan Medical Center	916.537.5296

ICD Support Group	916.733.6966
Mended Hearts Support Group	916.773.5263

Vascular HealthScreen	916.733.6245
Smoking Cessation	916.453.4927

DENTAL ALERT

- Remember to discuss antibiotic therapy with valve surgery patients who need dental work.
- Contact the Mercy Heart & Vascular Institute for a copy of the most current antibiotic guidelines

Phone: 916.733.6966

E-mail: daniel.sutherland@chw.edu

Upcoming: CME Symposium

Mark your calendars to join

Mercy Heart & Vascular Institute for the 19th annual

CONCEPTS & CONTROVERSIES IN CARDIAC TREATMENT.

2009 Cardiology & Electrophysiology Symposium

Saturday, Sept. 26, 7 a.m. to 3:30 p.m.

Hyatt Regency Sacramento

Cost:

\$120 All physicians

\$85 All Mercy technologists, nurses, dietitians, pharmacists

\$100 All Non-Mercy technologists, nurses,

dietitians, pharmacists

To register or request a brochure, call Mercy Heart & Vascular Institute at 916.733.6966 or e-mail daniel.sutherland@chw.edu.

FEATURED SPEAKERS:

Greg Albers, MD, Stanford University Medical Center

Wayne Levy, MD, University of Washington Medical Center

William J. Elliott, MD, Rush University Medical Center

Jonathan Tobis, MD, UCLA Medical Center

Euan Ashley, MD, Stanford University Medical Center

Sanjiv Narayan, MD, UCSD Medical Center

Samuel J. Asirvatham, MD, Mayo Clinic College of Medicine

WOODLAND HEALTHCARE
SIERRA NEVADA MEMORIAL HOSPITAL
METHODIST HOSPITAL OF SACRAMENTO
MERCY SAN JUAN MEDICAL CENTER
MERCY HOSPITAL OF FOLSOM
MERCY GENERAL HOSPITAL

mercyheartandsacramento.org

1.877.9HEART9

VASCULAR INSTITUTE

MERCY HEART &

MERCY HEART & VASCULAR INSTITUTE
3939 J Street, Suite 220
Sacramento, CA 95819-3633

A member of CHW

Mercy

