There’s currently a snowpack of almost eight feet in Whistler, British Columbia, and the ski conditions couldn’t be better on well groomed trails through some of the most picturesque scenery you’ll find anywhere. Each year, snow industry, travel, and internet publications rate and review the top resorts of the world. Consistently ranked as No. 1, Whistler tops mountain resort rankings year after year.

That’s the setting for SCA’s 16th Annual Update on Cardiopulmonary Bypass, March 6-11, 2011. The world-class educational program will include sessions on:

- Difficult problems during CPB
- Echocardiography
- Human factors and teamwork
- Blood conservation
- Quality initiatives
- And more!

Plenty of time is built into the program for recreation and exploration of the area. From its start as a fishing lodge in the early 20th century, to its season in the spotlight during the 2010 Olympic and Paralympic Winter Games, Whistler has always been considered a prime destination for adventurous spirits.

Located in the Coast Mountain range of British Columbia, Whistler is known for reliable snow and skiing conditions, receiving an average annual snowfall of more than 33 feet. Because Whistler is near the coast, temperatures are moderate through the winter season, rarely dipping below 12°F in the valley and 5°F in the alpine region during the coldest part of the year. You can generally expect 22°F average daily alpine temperatures during the CPB meeting.

Things to do

- Skiing and snowboarding
- Dog sledding
- Nordic skiing
- Backcountry tours
- Heli-skiing
- Sleigh rides

Dining

With fresh food, amazing views, and mountaintop venues, Whistler offers everything from gourmet fine dining to casual fireside meals. Whistler’s lineup of award-winning restaurants offers appetizing fare from different ethnicities and regions, with many of them featuring organic and locally sourced ingredients.
MEMBERSHIP SENATES

It was 50 years ago that John F. Kennedy gave his immortal “Ask Not What Your Country Can Do For You, Ask What You Can Do For Your Country” Speech.

Though I m no John Kennedy, I would like to take this opportunity to ask for your valued participation in the activities of the SCA. As hard and well as the SCA works for its members, the SCA can do so much more with active involvement by its members.

Did I hear you ask “How can I contribute to the SCA?” Here is a list of areas in which you can help:

• Volunteer for SCA Committees: There is a wide array of SCA Committees. A full list can be seen on the website in the “About SCA” section. Please look over the list and then speak to the Committee Chairs to demonstrate your interest.

• Complete the membership surveys: The Board of Directors tries to meet the expectations and needs of the membership. There are times when the Board needs your input. One such example is a survey we are conducting regarding the creation of a cardiac anesthesia data base linked to the STS database. Creation of this database is time demanding and costly, but the database may create significant research opportunities and important clinical insight. If you are contacted to complete the survey, please be sure to participate and send us your opinions.

• Volunteer for SCA Committees: There is a wide array of SCA Committees. A full list can be seen on the website in the “About SCA” section. Please look over the list and then speak to the Committee Chairs to demonstrate your interest.

Reservations about reservations?

Why is it important for me to stay in the meeting hotel and make my room reservation under the SCA group block? You may have asked yourself this question when discovering better rates down the road at another hotel, or perhaps through websites like Expedia and Travelocity.

Hotels will typically offer a very small block of rooms to these online companies, usually on a very short-term basis. The hotels occasionally offer these specials at the last minute because they are just as concerned about increasing occupancy as they are in achieving a high average room rate.

There are some obvious reasons why SCA encourages you to reserve your hotel room at the headquarters hotel. First, there is the convenience factor where you can simply take the elevator down to the meeting room. Second, you can enjoy the fellowship of seeing friends you haven’t seen for months, if not years (many times riding UP that same elevator).

There are some NOT so obvious reasons why SCA encourages you to make your room reservation under the group block. Did you know that by utilizing all of the required hotel rooms in the SCA block, the society avoids having to pay an attrition penalty? By avoiding attrition penalties, the society is able to keep meeting registration fees and member dues low for you. Also, by having strong guest room “pick-up” or utilization, this translates into making the SCA meeting a better piece of business.

A better piece of business in the hotels’ eyes means that we are able to leverage the society’s buying power in the marketplace and better negotiate the next hotel contract on your behalf (e.g. and get you lower group rates).

Finally, one of the best reasons to avoid the online temptations is that although you may get lucky and save $5, your room is not “protected.” In other words, if the hotel gets into an oversold situation, the reservations made through the online companies will be the first ones “walked” to another property. Translation: you arrive at the front desk to check into your confirmed hotel room after a long flight, only to have the desk agent inform you that they may have to pay large attrition penalties if we do not fill our block. Thirdly, and most importantly, your room will most likely be “protected” by the hotel. This means that even if the hotel is oversold and you arrive late, in most cases you will not be relocated.

I realize that it may seem that I am asking a lot of you, but the more you put into the SCA, the more you will get out and the better the SCA can serve its membership.
A unique workshop opportunity at the 16th Annual Update on Cardiopulmonary Bypass meeting

By Bruce D. Speiss, MD

On behalf of the planning committee we would like to remind you of the opportunity to participate in the Human Factors Workshop on Sunday March 6, 2011 (2:00 – 6:30 pm).

Human Factors and Teamwork Building through Effective Communication in Cardiac Surgery
Moderators: L Davies, B Spiess, R Ungerleider

2:00 - 2:10 pm Welcome and Introduction/Background - B Spiess
2:10 - 2:40 pm Communication Dysfunction as a Common Denominator in all Medical Human Errors - A DeAnda
2:40 - 3:10 pm Communication Techniques that Enhance Team Function and Decrease Error - R Ungerleider, J Dickey
3:10 - 3:40 pm The FOCUS Data on Communication Errors and the VA Study on Surgical Team Communications – B Spiess
3:40 - 4:10 pm Panel Discussion: Two Cases of Failed Communication – L Davies (Moderator), R Ungerleider, B Spiess, A DeAnda, S Reeves, P Hess
4:10 - 4:20 pm BREAK while simulation is set up
4:20 - 6:15 pm Simulated Experience (designed to help participants gain experience practicing good teamwork habits while addressing a challenging problem) - R Ungerleider, J Dickey
6:15 - 6:30 pm Wrap Up Discussion – L Davies, B Spiess, R Ungerleider

LIMITED TO 40 REGISTRANTS ONLY. PLEASE REGISTER FOR THIS WORKSHOP NO LATER THAN FEBRUARY 11, 2011.

Sunday’s workshop will focus on effective and ineffective means of communication. Special tools will be trained and evaluated so that you can see firsthand how effective communication helps you individually and as a team. This workshop is different than the typical “scientific” lecture you are used to at many meetings. The FAA and the general public got tired of seeing smoking holes in the ground where commercial airliners had entered the Earth’s crust. CRM was created. Anesthesia, Surgery and Perfusion must adapt a wide range of techniques for their unique environment. Airline CRM is not easily translated to cardiac operating rooms.

We encourage you to participate and help the cardiac care team emerge as the safest part of the hospital. Emerging healthcare initiatives will highly value safety and this educational offering gives you a chance to participate in an exciting field—Human Error Reduction for Heart Surgery.

To register for the Update on CPB Meeting and this workshop, just click here.
Evolving antiarrythmic and antithrombotic strategies in management of atrial fibrillation

By Sarah Vaccaro, B.Sc; Haider Warraich MBBS; Robina Matyal, MD
Beth Israel Deaconess Medical Center
Harvard Medical School
Boston, MA

Atrial fibrillation is the most common cardiac arrhythmia. Whether in isolation, or associated with cardiac pathology, it is associated with increased morbidity and mortality. In spite of its high prevalence, conventional antiaryrrhythmic drugs can have life-threatening proarryrhythmic complications. New antiaryrrhythmic drugs, however, aim to avoid these risks and show improved effectiveness for treatment of atrial fibrillation.

Pharmacologic treatment strategies involve either rhythm control with antiarryrhythmics or rate control with drugs such as beta blockers and calcium channel blockers. However, a trial comparing the outcomes of patients on either of these strategies who had atrial fibrillation and congestive heart failure, showed no difference between the two groups(1).

Amiodarone is traditionally considered to be the most effective drug treatment for atrial fibrillation. However, side effects can be severe and the drug has a very long half-life (58 days). Dronedarone is a structural analog of amiodarone with a better side-effect profile while effectively treating atrial fibrillation. Dronedarone is a multi-ion-channel blocker similar to amiodarone that works by reducing heart rate and dilating blood vessels, leading to a small reduction in blood pressure.

A meta-analysis of five major randomized, placebo-controlled trials concluded that dronedarone conferred better rhythm control as well as reduced cardiovascular morbidity and all-cause mortality. A placebo-controlled study has led to the suggestion that dronedarone can reduce the likelihood of stroke, as well as death from other cardiovascular causes(2).

Another study comparing dronedarone and amiodarone suggests that while amiodarone is more effective than dronedarone in the treatment of atrial fibrillation, patients are more likely to stop taking amiodarone due to side effects(3). The most frequently reported side effects for dronedarone are gastrointestinal, skin disorders and increased serum creatinine. Compared to placebo, a recent trial has shown that dronedarone confers a mortality and cardiovascular morbidity benefit in patients with atrial fibrillation(4).

Dronedarone was approved by the American FDA in March, 2009, for sinus-rhythm maintenance in patients with a history of atrial fibrillation/flutter with ejection fraction greater than 35%.

Vernakalant is an atrial-selective drug treatment for atrial fibrillation which affects Na+ and several K+ channels in the heart. Vernakalant is most often used intravenously to stop recent-onset atrial fibrillation. A long-term oral preparation, however, is in development. Several placebo-controlled studies have shown vernakalant to be effective in eliminating atrial fibrillation in about 50% of patients with limited side effects(5, 6). In these studies, vernakalant was most effective for treatment of recent-onset atrial fibrillation, but rarely effective at all for long-standing atrial fibrillation. Common side effects of vernakalant include nausea, sneezing and dysgeusia. The FDA has recommended vernakalant as an intravenous treatment for recent-onset atrial fibrillation.

Ranolazine, a current treatment for chronic angina as well as recurrent myocardial ischemia in patients with acute coronary syndrome, has also been studied for effectiveness in treating atrial fibrillation. In a placebo-controlled study, atrial fibrillation was reported less frequently in the group taking ranolazine than those taking placebo(7). Large studies are currently underway to determine the impact of ranolazine in treating atrial fibrillation.

Several other new drugs and treatment regimes (upstream therapy with angiotensin-converting enzyme, and angiotensin-receptor inhibitors, statins, omega-3 fatty acids and fish oils) are also currently being evaluated. Physicians of the future are likely to have several options with regards to treating atrial fibrillation. While none may be better than amiodarone in rhythm control, most newer medicines have better side effect profiles which result in better patient compliance.

Current practice utilizes vitamin K antagonists to reduce the risk of thromboembolic stroke in patients with atrial fibrillation. A common example, warfarin, has met with considerable obstacles due to its narrow therapeutic range, slow onset and offset of action, multiple drug interactions and potential variation with race, ethnicity and age(8). When Warfarin is considered unsuitable, physicians sometimes use the combination of clopidogrel and aspirin. A recent trial demonstrated that this combination can reduce the risk of stroke, it also increases the risk of major hemorrhage(9).

A considerable amount of progress has also been made in antithrombotic medications that are useful in patients with atrial fibrillation. While new oral Factor Xa inhibitors such as abixaban and rivaroxaban have yet to be properly evaluated, the oral direct thrombin inhibitor, dabigatran, has been shown to have superior outcomes to oral vitamin K antagonists in patients with atrial fibrillation(10). In the RE-LY muti-country trial, dabigatran was shown to have a lower risk of stroke at an equal risk of hemorrhage to Warfarin and an equal risk of stroke at a lower risk of hemorrhage at a lower dose compared to Warfarin(11). Due to its advantages over warfarin, dabigatran has the potential to increase the number of patients on oral anticoagulation since it does not involve the pitfalls of Warfarin therapy. In the meanwhile, before the widespread use of dabigatran, physicians should adhere to recently released, more comprehensive guidelines to clinically stratify patients for risk of thromboembolic stroke in the presence of atrial fibrillation (CHA2DS2-VASc Scoring)(12). Furthermore, a simpler scoring system to stratify risk of bleeding in patients with atrial fibrillation on anticoagulation is also now available (HAS-BLED) (13).

Considering its adverse impact on patient outcomes, atrial fibrillation remains a source of further research and investigation. With constant progress also occurring in interventional and surgical ablative procedures, as well as pharmacological agents, the management of atrial fibrillation is in the process of evolution. The eventual end point remains optimal patient treatment, with low risk of complications, and minimal adverse effects.

References:
Automated External Defibrillators and Survival After In-Hospital Cardiac Arrest


Reviewer: Mojca Remskar Konia, MD
University of Minnesota, Minneapolis, MN

Abstract Excerpt
The study by Chan and co-authors is a cohort study of 11,695 patients with in-hospital cardiac arrest in the United States. The National Registry of Cardiopulmonary Resuscitation (NRCPR) was used as the source of patient data. Use of automated external defibrillators (AED) in the initial assessment of cardiac rhythm was investigated. The primary outcome was survival to hospital discharge. Secondary outcomes were return of spontaneous circulation (ROSC) for at least 20 minutes during resuscitation, survival after 24 hours, and neurological status among those surviving to hospital discharge (assessed by Cerebral Performance Categories). Data was evaluated by robust statistical analysis. Out of 11695 patients with in-hospital cardiac arrest, 2079 (17.8%) had a shockable rhythm and 9616 (82.2%) had non-shockable rhythms. An AED device was used to assess initial cardiac rhythm in 4515 (38.6%) of patients. A total of 2117 (18.1%) patients survived until hospital discharge. Survival in patients in whom an AED was used was 16.3% and in patients in whom an AED was not used 19.3% (adjusted rate ratio [RR], 0.85; 95% CI 0.78-0.92; p<0.001). In patients with nonshockable rhythms, the survival rate was lower with AED use (10.4% vs. 15.4%, adjusted RR, 0.74; p<0.001). In patients with a shockable rhythm, the survival was the same between the two groups (38.4% vs. 39.8%; adjusted RR, 1.00; p=0.99). No change in results was noted when data was matched to individual units where cardiac arrests occurred or when time from implementation of AED use was considered. ROSC was the same between the two groups and the 24 hour hospital survival was decreased in AED group (28% vs. 33.8; adjusted RR, 0.89; p<0.001). For patients with shockable rhythms, the rates of ROSC and 24 hour hospital survival were the same between the two groups. The study concluded that survival of in-hospital patients with cardiac arrest who had shockable rhythms has not improved with use of AED devices. More importantly, in patients with nonshockable rhythms, in-hospital use of AEDs was associated with a lower survival rate.

Reviewer's Comments
The outcomes of patients with cardiac arrests in-hospital are still unacceptably poor. The prospective observational study from a multicenter registry (NRCPR) of cardiac arrests in 253 US and Canadian hospitals shows that the survival is 36% for patients with ventricular fibrillation and pulseless ventricular tachycardia and 11% for patients with pulseless electrical activity (1). Cardiac arrests with shockable rhythm in the operating rooms are associated with survival rates between 39.6 - 46.8% (2). Survival rates depend on the time to defibrillation and early, effective and continued chest compressions (3,4,5).

Although AEDs are not frequently used in the operating rooms, the use of AED in hospital wards, has increased significantly between 2003 and 2008.

Glucose-Insulin-Potassium Reduces the Incidence of Low Cardiac Output Episodes After Aortic Valve Replacement for Aortic Stenosis in Patients With Left Ventricular Hypertrophy: Results From the Hypertrophy, Insulin, Glucose, and Electrolytes (HINGE) Trial


Reviewer: Richa Dhawan, MD
University of Chicago Medical Center

Abstract Excerpt:
This is a single center, double-blind, randomized trial of 217 patients with left ventricular hypertrophy (LVH) and aortic stenosis (AS). Over a 4-year period, patients were randomly assigned to a treatment group that received a perioperative glucose-insulin-potassium (GIK) infusion or a placebo group that did not. Both groups underwent isolated aortic valve replacement (AVR) plus coronary artery bypass grafting (CABG), with seven patients undergoing additional procedures. Eight patients in each group also had postoperative left ventricular (LV) biopsies.

The primary endpoint was the incidence of a low cardiac output episode (LCOE) as defined by a cardiac index < 2.2 L/min/m² refractory to volume expansion. LV biopsies were used to assess signaling protein phosphorylation of 5’ adenosine monophosphate-activated protein kinase (AMPK), Akt phosphorylation, and protein O-linked -N-acetylglucosaminination (O-GlcNAc). The authors found that GIK treatment was associated with a significant reduction in a post-operative low cardiac output state (P=0.0001), a significant reduction in the use of inotropes post-operatively (P=0.0007), and there was a substantial increase in AMPK and Akt phosphorylation and O-GlcNAc. The treatment group had significantly more insulin use (P<0.0001) and vasoconstrictor use (P=0.005) in the first 6 hours after surgery.

Reviewer’s Comments:
LVH has been associated with increased difficulty in weaning from cardiopulmonary bypass and post-operative LV dysfunction secondary to inadequate cardioplegia and/or difficulty in oxygen delivery to endomyocardial tissue. Severe symptomatic aortic stenosis is a class I ACC/AHA indication for AVR regardless of LV function. Long-term data comparing outcomes in patients after AVR in patients with post-operative LCOE is sparse.

Long-term benefits to preventing post-operative LCOE after AVR also remain unclear, however short-term benefits are more apparent.

Over the last few decades there have been several studies looking at GIK treatment for myocardial protection. The proposed mechanism of action is a decrease in free fatty acids (FFA) such that myocardial tissue then relies on glucose metabolism. FFAs are detrimental to ischemic myocardium and precipitate apoptosis. There are other various protective and antiapoptotic mechanisms that have been postulated as a result of GIK therapy, such that ischemic myocardium is able to recover more rapidly after cardiac surgery.

Howell et al. found a decrease in inotropic use in the GIK group, however these patients required more vasoconstrictors to support blood pressure. Previous studies have had similar outcomes with GIK treatment in a wide variety

Continued, next page >>
of patients including those with reduced LV function. This may be attributed to a vasodilatory effect that in turn improves cardiac output and has no effect on myocardial recovery. This finding could have been mitigated if the authors had looked at vasoconstrictor use in the first 24-48 hours rather than just the first 12 hours, as the effect of vasodilation would have decreased. Also reporting systemic vascular resistance and other pulmonary artery catheter data would have been helpful to better analyze the results.

Despite a majority of studies with positive results with GIK treatment in patients undergoing cardiac surgery, it is still not routinely administered. This may be due to lack of uniformity of the dose and timing of the infusion. As the authors conclude, this is an interesting area of possible intervention in improving outcomes and future large, randomized control trials are warranted.

---

**Moderate Hypothermia and Unilateral Selective Antegrade Cerebral Perfusion: A Contemporary Cerebral Protection Strategy for Aortic Arch Surgery**


**Reviewer: Jenny Kwak, MD**

*Loyola University Medical Center*

**Background**

Surgical technique and cerebral protection for aortic arch surgery have evolved. The optimal technique for cerebral protection has not been determined, but in the interim, the effectiveness of one institution’s method is presented in this article.

**Methods**

This was a retrospective review of aortic arch reconstruction cases using moderate hypothermic circulatory arrest (MHCA) with unilateral selective antegrade cerebral perfusion (uSACP). uSACP was achieved using a graft sewn onto the right axillary artery. Major adverse outcomes were operative mortality, permanent neurologic dysfunction (PND), transient neurologic dysfunction (TND), and renal failure requiring permanent dialysis.

**Results**

The study enrolled 412 patients, 348 had hemiarch reconstruction and 68 had total arch replacement. Core body temperature was 25.7 +/- 2.8 degrees Celsius at the time of initiation of uSACP. Average duration of uSACP was 30 +/- 15 minutes. Overall operative mortality occurred in 7% of patients. Permanent neurologic dysfunction occurred in 3.6% of patients and temporary neurologic dysfunction in 5.1% of patients. In adjusted analysis, MHCA was not found to be an independent predictor for neurologic dysfunction (permanent or temporary), renal failure, or mortality. The authors concluded that MHCA with uSACP is not an independent risk factor for adverse outcomes after aortic arch surgery, but may in fact be an effective cerebral protective strategy in patients having aortic arch reconstruction.

**Reviewer’s Comments**

While the results of this study are interesting, and there are more advocating for some antegrade cerebral perfusion during arch reconstruction, the study does have limitations that one needs to consider. First of all it is a retrospective review of a protocol that evolved with experience at this institution. Deep hypothermic circulatory arrest (DHCA) was used initially at the institution. As outcomes with DHCA and uSACP were acceptable, the temperature was gradually increased to decrease cardiopulmonary bypass times and the deleterious effects of deep hypothermia. As a result of changing practice, there was no comparison of DHCA with uSACP and MHCA with uSACP which would have been useful in better determining the potential benefits of MHCA vs. DHCA with uSACP.

Additionally, with respect to neurologic dysfunction, a diagnosis of TND was made based on clinical definitions rather than a formal method such as a questionnaire. Though prolonged circulatory arrest was not a predictor of TND in this review, there was a small number of cases with circulatory arrest times greater than 40 minutes.

Despite the study’s weaknesses, it also has several interesting findings. The results published support that the right axillary artery is a safe cannulation site, resulting in a low incidence of PND. Also the fact that the goal core temperature was increased without an increase in ischemic damage to the lower body end-organs, such as renal failure or mesenteric ischemia is promising and should provide more evidence in support of utilizing this strategy. Adverse effects of deep hypothermia were also avoided. This study provides additional evidence that MHCA strategies may be safe alternatives to classic DHCA strategies for arch reconstructions, and a basis for future randomized controlled studies in effective cerebral protection in aortic arch surgery.

---

**Pharmacologically induced hypothermia with cannabinoid receptor agonist WIN55, 212-2 after cardiopulmonary resuscitation**


**Reviewers: Justin Knittel, MD, and Theodore A. Alston, MD, PhD**

*Massachusetts General Hospital, Harvard Medical School*

**Abstract**

Inducing hypothermia after CPR improves survival and neurologic outcome and is now a routine clinical practice. External cooling is slow and often requires muscle relaxation because of shivering. This laboratory report from the Weil Institute demonstrates a pharmacological method of cooling. The intravenous drug is a water-soluble agonist at hypothalamic cannabinoid receptors.

Ventricular fibrillation (VF) was electrically induced in anesthetized and intubated rats, which were resuscitated after 6 min by means of compressions and ventilation followed by countershock. Ventilation was continued for 3 h following resuscitation. Drug infusion was started 30 min after resuscitation and continued for 6 h. Normothermia was spontaneously maintained without the drug. With the drug, core temperature fell at about 1oC per h and stabilized at about 34.7o.

As previously shown in externally cooled animals, the pharmacologically cooled rats exhibited better cardiac function (for instance, EF 67% versus 45%) compared to normothermics and better survival (3 out of 5 for >72 h, in stead of 1 out of 5). As expected, heart rates were significantly decreased during hypothermia.
Regression of Myocardial Hypertrophy After Aortic Valve Replacement Faster in Women?

George Petrov, MD; Vera Regitz-Zagrosek, MD; Elke Lehmkuhl, MD; et al Circulation. 2010 Sep 14;122(11 Suppl):S23-8.

Reviewer: Robina Matyal MD
Beth Israel Deaconess Medical Center, Harvard Medical School

Background

Myocardial hypertrophy and fibrosis is a consequence of chronic increased afterload in both men and women. Women develop greater left ventricular hypertrophy (LVH) with smaller left ventricular diameter and less ventricular dilatation when compared to men as a result of aortic stenosis. In women, there is a more concentric hypertrophy of the ventricle without fibrosis as compared to men, in whom there is increased fibrosis and an increase in collagen I and III. This study was conducted to study the gender difference in the mechanism and regression of LVH after aortic valve replacement.

Methods and Results

The investigators prospectively enrolled 53 women and 39 men who were undergoing aortic valve replacement for isolated aortic stenosis. The group studied 10 patients for matrix gene expression and the effects of 17beta estradiol on collagen synthesis in isolated rat cardiac fibroblasts.

The investigators found similar ejection fraction in both genders, with more women showing significant LVH (p<0.01). After aortic valve replacement, the absolute left ventricular mass and prevalence of LVH was significantly lower in women, leading to equal prevalence of LVH. Postoperatively, the increased left ventricular diameter persisted in men more than women (p<0.023). Surgical biopsies showed men's ventricular tissue had significantly higher collagen and matrix metalloproteinase than women. They also demonstrated that 17-beta estradiol causes fibrosis in male rats as compared to female rats fibroblasts.

Reviewer's Comments

The conclusion of the study was that women adapt to pressure overload differently from men, that the decreased fibrosis in response to aortic stenosis may enable the faster regression of LVH after aortic surgery in women. Multiple other studies have shown faster left ventricular mass recovery in patients after aortic surgery without making any gender differentiation.

This study is the first to suggest accelerated left ventricular mass recovery in women than men. In elderly males there is more collagen I and III and MMP-2 gene expression in the myocardium as compared to elderly females. This suggests that elderly women with aortic stenosis develop a different form of hypertrophy than elderly men, characterized by less fibrosis in the heart. Less fibrosis might be the reason for faster regression of ventricular hypertrophy.

The estrogen seems to be responsible for fibrosis in cardiac fibroblasts in male rats as compared to female rats. Whether this phenomenon hold true in humans needs to be demonstrated in future work.

In women it has been shown that increased activation of the protein kinase B pathway contributes to gender differences in the development of cardiac hypertrophy. The effects of estrogen have been shown in myocardial calcium handling and increased expression and activity of nitric oxide leading to different cardiac function and response to after load.

Another group suggested the activation of tumor growth factor beta to be associated with increased expression of collagen I and III and MMP in men as compared to women to cause increased fibrosis in response to aortic stenosis.

Overall, this was a well-designed study that attempted to identify the molecular mechanism of left ventricular response to increase after load. Future work is needed to identify the molecular mechanism of regression in left ventricular mass after the aortic valve replacement and whether this regression leads to decreased morbidity/mortality and improved systolic/diastolic function recovery in women as compared to men.
SCAF Committee Members - Call for Nominations

By Joyce A. Wahr, MD
SCA Foundation Chair

As you have heard, the SCA Foundation has enjoyed a marvelous start, thanks to the hard work of the Board members and the generous support of so many members. Our most important accomplishments have been an increase in the number and amount of the research grants, expansion of the fellows program, including initiation of a new Leadership Training Program, and successful completion of the first two phases of FOCUS, including winning an AHRQ grant to fund implementation of the teamwork tools developed in the first two stages. The accomplishments have been amazing, but there is much more to be done. The SCAF Board of Directors recently completed a Strategic Planning process, and high on our list of goals and strategies for the next 3 years is expansion of the Foundation committee membership. Herewith, the SCAF is issuing a Call for Nominations for Foundation Committee members. Self nominations are encouraged, with a deadline of March 1, 2011; a full list of committee members will be announced in April in Savannah, Georgia at the SCA Annual Meeting.

Responsibilities as a committee member will be to assist the Chair of the committee in fulfilling the duties of the committee, as listed below. Virtually all committee work will take place via monthly committee teleconferences and emails, with a face to face meeting held in conjunction with the yearly SCA annual meeting. For additional information and clarification of any questions, please contact the chair of the committee you are interested in joining.

The Governance Committee, chaired by Nancy Nussmeier, is composed of the chair and up to eight members, and is responsible for all governance activities of the Foundation, including nominations and selection of Foundation Directors, oversight of bylaws, ethics, policies and procedures, and new member/volunteer orientation.

The Program Committee, chaired by Dan Thys, is composed of the chair and up to 8 members, and is responsible for working closely with the SCA leadership to identify, develop, and oversee programs to advance cardiac patient safety and advancement of our specialty. This committee will help determine how the funds raised can best be directed to achieve the missions of the SCA and the SCA Foundation. This committee will specifically work closely with the SCA Research Committee to determine how best to advance the research grant program; with the Fellows Program to develop and further this new initiative; and with the FOCUS Steering Committee to ensure the FOCUS program moves forward yet still aligns with the missions of the SCA and the SCA Foundation.

The Development Committee, chaired by Joyce Wahr, is composed of the chair and up to 8 members, and is responsible for all development, marketing, and fundraising activities of the Foundation. This committee is charged with increasing total Foundation contributions from SCA members, corporate partners, and external Foundations. This committee will work closely with the Program Committee to identify existing and new initiatives with the greatest potential for member and external financial support. Individuals with experience in marketing (particularly web based) and development experience or those with affiliations with potential corporate or foundation partners are encouraged to join!

Tremendous Response to Annual Campaign Kickoff

By Joyce A. Wahr, MD
SCA Foundation Chair

In November, the SCA Foundation kicked off the 2010-2011 Annual Campaign. With the unwavering support of the SCA members, the Campaign is off to a roaring start! As of December 31, 2010, the Foundation had received a total of $153,000, a fantastic start to our fiscal year! Even more rewarding, 48.5% of the contributions received came from donors who had not previously donated to the Foundation. This indicates to me that our Society members are embracing the SCA Foundation’s mission to improve the lives of our patients and future of our specialty – thank you so much to each of you who have given!

With the formation of the Foundation and the funding of the FOCUS Patient Safety Initiative, the SCA embarked on a bold journey to do more than just educate ourselves and advance our personal knowledge. Within FOCUS, the Society and the Foundation have taken the challenge to actively engage other cardiac operative specialties (nurses, surgeons, and perfusionists) to collectively and emphatically improve the safety of our patients through better cardiac teamwork. Through expansion of our research grant program, and development of a leadership academy, the Society and the Foundation are taking critical steps to enhance the future of the profession of cardiac anesthesiology and our next generation of leaders.

You may have intended to send a contribution, but got caught up in the holiday rush – please join your fellow SCA members now in supporting the programs of the Foundation. Every member who gives increases our chances of successfully competing for external grants and contributions – your gift is critical to our success, whether $50 or $5,000. And an enormous thank you again, to our donors who made this kickoff the best one yet!

You can make a charitable donation to the SCA Foundation through a visit to our website at www.scahqgive.org and give online. For more information on the SCA Foundation, you can email us at foundation@scahq.org or call us at 804-565-6324.

SCA Foundation Events at the SCA Annual Meeting

SCA Foundation Reception - Recognizing FOCUS
Sunday, May 1, 2011 • 6:00 pm – 8:00 pm • Vic’s on the River
Savannah, GA
Special Guest Paul H. O’Neill, 72nd Secretary to the U.S. Treasury and member, Lucian Leape Institute of the National Patient Safety Foundation

Earl Wynands Lecture
Sunday, May 1, 2011 • 8:00 am – 9:00 am
Dr. Doris Taylor, Director, Center for Cardiovascular Repair, University of Minnesota

FOCUS Session
Monday, May 2, 2011 • 3:45 pm – 5:15 pm