# Daily Briefing

### WEDNESDAY

## Wednesday PICS Preview

By Karim Diab, MD

We hope you are enjoying the conference so far. For those of you who attended last night's Gala Dinner, we hope you had a wonderful time at the Museum, and you got to enjoy some of the exhibits!

On Wednesday, the final day of PICS will wrap up the conference with more live cases in the morning as well as comprehensive breakout sessions in the afternoon.

The morning session will start at 8:00 am with live cases, this time transmitted from the University of Colorado, Denver, CO and Seattle Children's Hospital, Seattle, WA.

Case demonstrations by Dr. J. Carroll and his team from Denver, will include an interesting case of PFO closure in an adult with stroke and attempt to retrieve a previously placed HELEX device that embolized to the RPA, closure of ASD using an advanced 3D TEE-x-ray integrated guidance system and a case of RPA stenting in an adult with RPA stenosis using 3D rotational angiography techniques.

From Seattle Children's Hospital, Dr. T. Jones and his team will be performing a case of transcatheter valve-in-valve rehabilitation of an existing fractured Melody valve, closure of an aorto-RV shunt using the Amplatzer Duct Occluder under TEE guidance and transcatheter PV implantation using the Melody valve in a patient with TOF/PA s/p repair.

After the morning live case session, there will be three breakout sessions that will run in parallel. The first one (Grand Ballroom Salon I/II, 7th Floor) will feature the traditional "My Nightmare Case in the Cath Lab," which always provides a platform for us all to learn from the honesty of some of our most challenging experiences.

Simultaneously, a session on complex structural interventions will be held in the Chicago Ballroom F/G, 5<sup>th</sup> Floor. This will discuss complex issues such as occlusion of coronary artery fistulae, complications in stenting for coarctation in adults, LAA occlusion, ruptured sinus of Valsalva occlusion, ruptured sinus of Valsalva occlusion, hybrid approach for post-infarct VSD and occlusion of complex collaterals. The session will feature the 8<sup>th</sup> Hot Debate on whether all VSDs should be closed in adults irrespective of size (Pro: Dr. M. Carminati, Con: Dr. R. Ringel).

The last breakout session of PICS will be held in the Grand Ballroom Salon III,  $7^{th}$  Floor and will feature a special comprehensive session with in-depth focus on pulmonary valve interventions. This will include topics such as: balloon pulmonary valvuloplasty, transcathether pulmonary flow restrictors, cutting balloon angioplasty in severe RVOTO, transapical implantation of the PV in small children, advanced imaging after PVR, CPET



imaging after PVR (Dr. D. Kenny), and a review on the Melody and SAPEIN valves. The session will end with the 9<sup>th</sup> and last Hot Debate at *PICS*, discussing whether surgical valves are more durable than transcatheter pulmonary valves (<u>Pro</u>: Dr. M. Ilbawi, <u>Con</u> Dr. P. Bonhoeffer).

The last day of *PICS* will also feature a round-table discussions (Grand Ballroom Salon I/II, 7<sup>th</sup> Floor) looking at interventional therapies in the developing world and the need for standards of care in interventional therapies.

At the end of the day, after closing remarks from Dr. Z. Hijazi, there will be the Exhibit Passport drawing of the name of one lucky winner of the new iPad; remember, you must be present to win!

Hopefully, this year the symposium brought you a comprehensive review of the latest developments in the field of interventional therapies for congenital and structural heart disease in children and adults. One of the major highlights of this symposium was the opportunity to witness live performance of interventional techniques in structural heart disease performed by experienced operators, and transmitted from various centers around the globe.

We hope you also took advantage of the valuable opportunity to meet and interact with distinguished national and international faculty during the meeting.

After returning to the *Windy City* this year, *PICS* moves to Miami next year with an earlier, but "warmer" start on January 19-22, 2013. See you in the *Magic City* for another amazing symposium!!

# PICS Scientific Scholarship Award

The PICS Scientific Award was designed to recognize original scientific work in the field of interventional cardiology, with the winner

receiving a \$5,000 grant towards their research endeavor.

This year's award winner is Dr. Henri Justino.

#### **Oral Abstract Finals Winner**



The 2012 *Oral Abstract Final Winner* is Dr. Flora Wong, who presented "Percutaneous Transhepatic Ultrasound-Guided Cardiac Catheterization in a Fetal Lamb Model."

# More on the ASD Erosion Issue!

By Karim Diab, MD

Yesterday's session on the erosion issue post ASD device closure reviewed this rare, but potentially fatal complication. Dr. Hellenbrand reviewed the data on the reported cases of erosions both in the US and worldwide. To date, there have been a total of 97 cases reported worldwide (48 in the US), with an estimated incidence of 0.04-0.17% worldwide, and 0.07-0.11% in the US. Although the mechanism of erosion was not pinpointed, it









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was noted that the most frequently observed relationship to erosion was oversizing (40%) and deficient anterior superior rims i.e. <5 mm (90%). 75 % of cases involved device sizes > 18 mm and most (87.6 %) occurred within the first year of implants with no deaths in patients younger than 15 yrs.

It was felt that the cause is still unclear, and is probably multifactorial. In order to help find the root cause of this issue, it seems it might be helpful as suggested during the panel discussion, that a prospective registry be built, whereby each case of ASD device closure in the US would be included. The FDA meeting next month will further discuss this issue to help make this procedure as safe as possible by avoiding this potentially serious complication.

## PICS Session on TAVR: Emerging Technology for management of AS and Encouraging Results at Two Years

By Karim Diab, MD

The breakout session on transcatheter aortic valve replacement during PICS revealed interesting new data on new aortic valves as well as an update on the PARTNER I study. This procedure has recently emerged as an alternative therapy to surgical replacement in patients who are either inoperable, or who are at high-risk for surgery. The session discussed how to establish an aortic valve program, patient selection, imaging modalities, as well as some newer valves available. In addition, live case demonstrations demonstrated this successful technique with a live case transmission from Copenhagen Denmark (using CorValve via a transfemoral approach). New data was presented including results from the Canadian Multicenter Experience study showing the Sapien valve to be durable out to 4 years, and the large MEDTRONIC ADVANCE registry, which found the implantation of the CoreValve to be safe.

In addition, promising updates on the two-year follow-up data on the PARTNER I study was presented. TAVI for patients with severe aortic stenosis performed as well through 2 years as it did through the first year of the PARTNER trial, both among inoperable patients, as well as high-risk, but operable patients. In summary, a 2-year follow-up of patients in the PARTNER trial supported TAVR as an alternative to surgery in high-risk patients (defined as those with coexisting conditions putting them at a risk of death of at least 15%

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by 30 days after the operation). The two treatment modalities were similar with respect to mortality (33.9% with TAVI vs 35% with surgery, P=0.78), reduction in symptoms, and improved valve hemodynamics. Paravalvular regurgitation, however, was more frequent in the TAVI group, both at 1 and 2 years. In addition, even mild paravalvular regurgitation - which occurred in 40% of patients - was associated with late mortality.

Another study also reported that among inoperable patients with AS (Cohort B), TAVI had a significant advantage over medical therapy in reducing mortality over two years (43.3% vs 68%, P<0.001), as it did at 1 year.

The issue of transfemoral vs transapical approach was also discussed. Both the transapical and transfemoral approaches were used in the study, comparing TAVI to surgical replacement, whereas, only transfemoral access was used in the inoperable patients of cohort B. Among the patients who underwent TAVI, those who had a transapical procedure appeared to have a higher mortality rate at two years compared







with those who had a transfemoral procedure. This higher mortality rate is probably reflective of a higher patient risk profile.

With the rapid and revolutionary evolution of transcatheter heart valve devices, further refinement of the technique and longer follow-up will hopefully help further define the role of such newer and promising therapies.

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