**Dr. HB Calleja Professorial Lecture**

**Leading edge in echocardiography**

Dr. Lim Bee Chian of the National Heart Center Malaysia emphasized the usefulness and advantages of 3D echocardiography in the evaluation of cardiac chamber size and function for the diagnosis, prognosis, and treatment strategy. Its competitive edge are: evaluation of cardiac chamber volume and mass, which is more accurate and avoids geometric assumptions in 3D echo compared to 2D echo; excellent correlation of 3D echo with the cardiac MRI for volume, mass, and ejection fraction, with better reproducibility than cardiac MRI because it is more cost effective; 3D echo is also promising as an accurate and reproducible tool for detecting and quantifying LV intraventricular dyssynchrony.

He cited the article of Mark Monaghan from Heart, 2006 January that the three dimensional echocardiography for LV analysis allows comparison of all LV segments, it also provides composite of all vectors of motion, has an excellent spatial resolution with quick acquisition and analysis. Furthermore, the systolic dyssynchrony index is simple, intuitive, reproducible and predictive of cardiac resynchronization therapy success, and the graphical parametric display of dysynchronous segments guide the LV lead segment placement. The pathology of a cardiac disease is better defined with the 3D echo, hence more superior as it can give the extent of the location, severity and morphology of valvular heart diseases.

Dr. Mary Ong-Go, chair of the event, invited Dr. Homobono B. Calleja, one of the distinguished guests to present the plaque to Dr. Lim Bee Chian. Overall, the lecture imparted new knowledge and new developments in echocardiology.

Dr. Homobono B. Calleja is a 26th president of the PHA and Philippine Medical Association. He is Director Emeritus of the St. Luke’s Heart Institute-St. Luke’s Medical Center. Undoubtedly, he is an icon in Philippine Medicine and in Cardiology not merely for his being an exemplary clinician, lecturer and researcher but as a writer and champion of the rights of physicians. The appellation “HB or Dr. Calleja” is worth more than a thousand good words and deeds. His reputation precedes him.

**The 9th Ramiro de Guia Memorial Lecture**

**Current management of ventricular tachycardia**

Dr. Noel Gerald Boyle went down memory lane when he cited the milestones in arrhythmia management. In the US cardiovascular zone, the 1970s saw the birth of the American Heart Association ACLS guidelines which had been updated every 4-5 years thereafter. In the 1960s, amiodarone was first used for arrhythmias. It was in 1987 when radiofrequency ablation was first reported. And in the 1980s, implantable cardioverter-defibrillators (ICDs) were first developed. The ICDs have evolved through time and it was in the 1990s when the first pectoral and transvenous ICD implants were done. In 2000 AEDs became widely available.

In detail, he discussed the wide complex tachycardia diagnosis – giving the definition and different ECG criteria for ventricular tachycardia. These criteria were not 100% specific and sensitive. All these ECG criteria are helpful but not diagnostic. ECG findings suggestive of ventricular tachycardia include the presence of AV dissociation. He also emphasized that the wider the complex and the slower the upstroke, the more likely that it is VT. Patients with prior myocardial infarction and patients who have structural heart disease have high likelihood of presenting with ventricular tachycardia (>98% and > 90% respectively). He added that in patients presenting with ventricular arrhythmia, it is prudent to treat the patient first and make the diagnosis later.

Several trials have shown the survival benefit of ICD vs antiarrhythmic therapy alone in mortality reduction. However, in some studies, there was an increased death in patients receiving more shocks. There is a paradox of ICDs shocks preventing sudden cardiac death but were noted to have acceleration of heart failure death. There is the need to program anti-tachycardia pacing to reduce shocks which was associated with increased mortality. Another option is to use anti-tachycardia medications such as combination of amiodarone and beta blocker.

In part, he tackled the criteria for ventricular tachycardia in the absence of structural heart disease such as RVOT.
According to him, the transcatheter Aortic valve implantation (TAVI) appeared to be non-inferior compared with surgical aortic valve repair for high-risk patients. Fewer deaths were reported, with shorter hospital stay and improved functional class. As stated in the current consensus, TAVI is preferred in patients with severe symptoms, in calcific stenosis of trileaflet aortic valve who have aortic and vascular anatomy suitable for TAVI; for patients who have prohibitive surgical risk; and it is a reasonable alternative to surgical AVR in patients at high risk for AV repair. However, several issues were raised such as: long-term durability, applicability to intermediate and low-risk population, repositionable and retrievable valve system, management of periprosthetic aortic regurgitation and prevention of periprocedural stroke.

The second part of the lecture dealt on the use of a Mitral Clip as a new technique for mitral valve repair. The device is used for percutaneous mitral valve repair under TEE guidance. Its main indication is for the treatment of central mitral regurgitation jets of degenerative or functional mitral regurgitation. It shows promise as an alternative to surgical mitral valve repair because of its comparable efficacy and safety to standard surgical mitral valve repair.

His third lecture was about the Modification of the Sympathetic Nervous System to control Resistant Hypertension. Resistant Hypertension is defined as a blood pressure more than 140/90mmHg in spite of the use of three concurrent antihypertensives of different classes, at their optimal doses, and ideally one of the antihypertensive drug is a diuretic. The procedure involves placement of a renal artery radiofrequency catheter, which is a 38-minute median procedure. Trials showed a significant change in the office blood pressure at 1, 3, 6 and 12 months, no impairment of renal function and the maintenance of its treatment effect lasted up to 3 years (SIMPLICITY HTN1- Proof of Concept Trial).

The last lecture introduced the second generation drug-eluting stents such as the Xience V, the Bioabsorbable stent (Ibaki-Tamai) and the Biovascular scaffold. As compared with the first generation drug-eluting stents, the second generation stents reduces the delay in endothelialization therefore...
Gastroenterology
Dr. Patricio Agunod-Cheng won first prize for her paper “The effect of health education on blood pressure in an urban poor community”;
Dr. Raul Jara was named 2nd prize for his entry "Tetralogy of Fallot: A Philippine Heart Center Review"; Dr. Liberty Yaneza placed third for her piece “Comparison of drug eluting stents versus bare metal stents in femoropopliteal artery occlusive disease: a meta analysis” in the PHA-Servier Award for Most Outstanding Research in Cardiology.

Cheng tops MOR race

PhA-Servier Award for Most Outstanding Research in Cardiology

Dr. Patricia Agunod-Cheng won first prize for her paper “The effect of health education on blood pressure in an urban poor community”; Raul Jara was named 2nd prize for his entry “Tetralogy of Fallot: A Philippine Heart Center Review”; Dr. Liberty Yaneza placed third for her piece “Comparison of drug eluting stents versus bare metal stents in femoropopliteal artery occlusive disease: a meta analysis” in the PHA-Servier Award for Most Outstanding Research in Cardiology.

The accolade comes with a monetary reward: first prize -- P75,000; 2nd prize -- P30,000 and 3rd prize – P20,000.

The judges were Dr. Ramon Abarquez, past president of the PHA and Centennial Awardee for Research at the UP College of Medicine; Dr. Noel Boyle, professor of Medicine at the David Geffen UCLA School of Medicine; and Dr. Koh Tian Hai, medical director of the National Heart Center Singapore.

The finalists were given eight minutes for the presentation and two minutes for open forum. Cheng concluded that health education on risk factor modification can be an important tool in improving blood pressure. In defending his paper, Jara said that surgical outcome has been good in the Philippines but there should be emphasis on early interventions to avoid complications. According to Yaneza, drug eluting stents had better angiographic and clinical outcomes but there was no significant difference in terms of mortality rate and ankle brachial index.

The PHA-Servier Award for MORC was chaired and co-chaired by Drs. Joel Abanilla and Ma. Adelaida Iboleon-Dy.
NEWS

ELECTROPHYSIOLOGY SESSIONS

New drug therapies in atrial fibrillation
Erdie Fadreguilan, MD

Initially, the focus was on the disease burden of atrial fibrillation. Approximately 1% of all people are affected with atrial fibrillation and in the Philippines, the prevalence is 0.6% in 2003. The cornerstone in the management of atrial fibrillation was summarized in 3: Rate control; Rhythm control and stroke prevention with varying emphasis as to the superiority of either rate or rhythm control. Rhythm control which is an achievement of conversion to sinus requires varied anti-arrhythmic agents from the Class I (Flecainide) to Class III (Amiodarone and Sotalol) and the new drugs and the use of non-pharmacologic strategies such as catheter ablation, pacing or surgery (MAZE).

The new drugs discussed were: Dronedarone which is derived from amiodarone, a non-iodinated version of the latter drug which blocks similar channels as that of Amiodarone; however, majority of its effect would be on the K channel. The ATHENA trial which was cited revealed a 24% relative risk reduction in hospitalization, stroke and mortality was a landmark trial which changed clinical practice at the time of its publication. Based from the varied studies therefore, Dronedarone has been recommended for persistent or paroxysmal AF, for symptomatic AF despite rate control, can be given in CAD but not in Heart failure.

He also said that the results of the PALLAS study revealed a higher mortality in patients with permanent atrial fibrillation, hence it is contraindicated in this condition. Another relatively new drug, Vernakalant works more on the K and Na channels and prolongs atrial but not ventricular depolarization. Based on the ACT 1-ACT IV studies, it was able to convert AF in 50-55% within 90 min of administration of the drug. However, this drug is not used for AF occurring more than 7 days.

Fadreguilan also discussed the role of newer anticoagulants for stroke prophylaxis in AF which included the direct thrombin inhibitor Dabigatran. This drug is given at a dose of 150mg BID but not recommended in moderate to severe renal impairment. According to the RELY trial, among patients with CHADS score of 2.1, it provides 35% relative risk reduction in endpoints such as stroke, mortality but with similar rates of major hemorrhage as in Warfarin. Rivaroxaban, the relatively new Factor Xa inhibitor given at dose 20mg OD and renally adjusted to 15mg OD in high risk AF patients with CHADS2 score of 3-4 was non-inferior to Warfarin. Another drug, Apixaban which is also a Factor Xa inhibitor showed superiority to Warfarin in the Aristotle trial. The issues raised however, on this new drugs, were lack of “long term profile” as to its effects, and of course the cost.

Cordoves talked about the known genetically-associated causes of arrhythmias and sudden cardiac death like: Prolonged QT syndrome, Brugada Syndrome, Catecholaminergic Polymorphic ventricular tachycardia, Arrhythmogenic right ventricular dysplasia or cardiomyopathy (ARVD/C), hypertrophic obstructive cardiomyopathy (HOCM) and dilated cardiomyopathy or myocarditis (DCM); the genes involved were also highlighted. The initial pharmacologic treatment and management as well as the indication for genetic testing were likewise expounded during the lecture.

Long QT syndrome is characterized by a long QT interval >=480msec on ECG usually occurring on physical exertion (Long QT1), during sleep or rest (long QT2/long QT3), but there is a need to exclude other common secondary causes of QT prolongation such as electrolyte abnormality, and intake of QT prolonging drugs. Genetic testing is recommended for family screening, but not for the 1st or proband case, for family screening in those presented with syncope, for symptomatic patients with QTc abnormalities and for screening of the first degree relative of the proband genotype. For Brugada syndrome, patients presenting with the typical type1 Brugada ECG pattern and those with sudden cardiac death, the association of mutation of the gene SCN5A is seen in 20-25% of such cases. Family screening is recommended but not for type 2 or 3 ECG pattern. Catecholaminergic Polymorphic VT causing bidirectional VT which usually occurs during stress and exercise is associated with genetic abnormality of the RYR2 gene in 60% and possibly the CaSO2 gene and indication for genetic testing for family screening were likewise stressed.

Other genetically associated cardiomyopathies causing arrhythmia include HOCM and DCM. The familial association of cardiomyopathy is about 40-50%, and these are likely inherited; hence, there is indeed a great role of genetic testing. However, this is limited by the availability of the genetic testing and the cost.
Athlete’s heart
Marcellus Francis Ramirez, MD

The speaker described the Athlete’s heart which is notably characterized by physiologic form of hypertrophy with increase in cardiac mass, structural remodeling of the heart as a physiologic adaptation to the increased sympathetic discharges during exercises but with well-preserved systolic and diastolic function. However, sudden cardiac death can happen even in highly competitive athletes, and usually among patients with structural heart disease, most commonly hypertrophic cardiomyopathy.

Evaluation of athletes with potential arrhythmogenic conditions would need the ever-reliable history and physical examination, the use of the 12-lead electrocardiogram, and other ancillary tests such as stress testing, echocardiography, and holter monitoring. In selected cases, an electrophysiology study may be indicated.

Normally, athletes usually present bradycardia up to 30 BPM, due to increased vagal tone but not due to sinus node dysfunction. Initial evaluation would need deconditioning of the athlete which is a period of 1-3 months with no exercise, and the reassessment, thereafter. For tacharyrhythmias, such SVT and AP a consideration of catheter ablation as treatment is included aside from use of antiarrhythmic drugs. For atrial flutter, ablation is mandatory and all sports can be done thereafter. For WPW syndrome, a higher risk of sudden death is observed due to high sympathetic activity during training and competition. Management would warrant stratification and EPS studies. Patients with non-sustained VT need to be extensively evaluated also.

He cited the various differences between the athlete’s heart and Hypertrophic cardiomyopathy. The latter is associated with a small LV cavity with large LA with associated ST-T wave changes including Q waves on ECG, and is the most common cause of SCD in athletes.

Long QT syndrome is also a common cause of SCD in athletes and the speaker stressed the need to exclude other acquired secondary causes of Long QT and the need to get QTc. For symptomatic patients with the condition, they should be prohibited to engage in highly competitive sports.

For Brugada syndrome, there is increased propensity for such individuals to die during sleep or at rest and therefore ICD is indicated.

Also present in the session was Dr. Noel Boyle, US-based electrophysiologist and this year’s Ramiro M. De Guia Memorial Lecture speaker. Boyle congratulated the lecturers and commended them for being informative but concise, and declared that he learned something new.

Marcelyn Almojera-Fusilero, MD & Michael Agbayani, MD

FAD Diets results are superficial

Sanirse Orbeta, a clinical and sports nutritionist gave examples of diets hyped by famous books and celebrities. They are usually touted as the quick and effective solutions to weight loss problems. According to her, fad diets are popular because they promise instant result on looks and physical comfort. People who follow these diets are usually those who have unrealistic weight loss expectations. Physical appearance, instead of medical or health reasons, becomes the main motivation for following these diets. These diets are usually those that recommend extreme low-calorie intake, neglect of certain food groups, food intake at particular time of day only, or intake of various food supplements.

An example of these fad diets include the famous and expensive Cohen diet which is a high-protein, low-carbohydrate, low-sugar regimen, where meals are strictly measured in grams. Another example of fad diets that Orbeta discussed was...
PLATO explored the efficacy and safety of ticagrelor compared to clopidogrel in the treatment of a broad spectrum of ACS patients which covered 43 countries including the Philippines and 18,624 patients from October 2006 to July 2008.

The study showed that ticagrelor significantly reduces the composite endpoint of cardiovascular death, MI or stroke versus clopidogrel at one year. It also demonstrated an absolute risk reduction which starts early and continues to build over the full one year of treatment.

The trial on the cardiovascular safety of Linagliptin (Trajenta Trial) showed linagliptin’s clinical profile which is characterized by: Effective lowering of blood glucose – Hba1c, fasting plasma glucose, and postprandial glucose; a safety profile that is similar to placebo – lack of significant side effect profile and, in particular, minimal hypoglycemic risk; ease of dosing due to its unique pharmacological profile with no need for monitoring or dosage adjustment in patients with renal impairment due to its largely biliary route of excretion, making it unique amongst current DPP-4 inhibitors. Linagliptin is a novel DPP4 inhibitor that gives meaningful and sustained Hba1c reductions. It is the only DPP4 inhibitor that is excreted mainly through the bile and gut – providing care to the kidneys of patients with type 2 DM. Meta-analysis on 8 Phase III clinical trials showed potential reductions of CV events – this hypothesis is being tested presently with the CAROLINA study.

Chaired by Dr. Paul Ferdinand Reganit, the activity was well received and participated in by the audience as evidenced by the lively interaction with the speakers and reactors during the open forum.

The PLATO speaker was Dr. Naotsugu Oyama from Japan who took his postdoctoral fellowship in Harvard Medical School. The reactor, Dr. Ramoncito Tria is an interventional cardiologist at the Philippine Heart Center and Capitol Medical Center. The speaker for the Trajenta Trial was Dr. Rafael Castillo, a past president of the PHA and Philippine Society of Hypertension while the reactor was Dr. Rody Sy, a professor of Cardiology at the UP College of Medicine and head of the Cardiovascular Institute at the Cardinal Santos Medical Center.

ORERTA added that these fad diets result in rapid but unsustained weight loss, consisting mostly of lost water weight. This “weight loss” becomes easily regained with the resumption of normal eating habits. These unbalanced dietary practices may also lead to depletion of essential nutrients. She emphasized that these fad diets are not scientifically proven to be effective and safe. The public must be adequately informed about the potential harm from these dietary fads.

In general, rhythmical aerobic activities that can be maintained continuously involving large muscle groups that utilize 40 – 85% of VO2 max done for 20 – 60 minutes 3 – 5 days a week or an intermittent activity every 3-5 days progressing between 1 to 3 week intervals should be recommended for cardiac patients.
Dealing with the Eisenmenger patient

“If we are to truly catch up with the progress in the field of Pediatric Cardiology here in Asia, we should learn when to veer from the overcautious, “Do No Harm, Touch Me Not” tendency so as not to miss the train of novel and exciting approaches to the medical, interventional, surgical and hybrid management of heart diseases now available to our patients.” -- Drs. Jonas del Rosario & Connie Sison

Rheumatic Heart Disease is still the most common acquired heart disease affecting 5–15 years olds. It remains a crippling disease with a long and permanent series of events.

Strict adherence to Benzathine Pen C prophylaxis is still crucial to reducing morbidity and mortality.

RHD remains as one of the high-risk conditions requiring prophylaxis especially in those who have had previous IE, have prosthetic valve and mitral stenosis.

Pedia to adulthood RHD cases

By Virginia Mappala, MD

Rheumatic Heart Disease is still the most common acquired heart disease affecting 5–15 years olds. It remains a crippling disease with a long and permanent series of events.

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Cardiac & other social issues

Dr. Pua further discussed the management of valvular heart diseases. Mentioning also the relevance of the Employee’s Compensation Law – when claimed contingency is not the direct result of the covered employee’s employment, and the claimant failed to show proof that the risk of contracting the disease was increased by the employment and working conditions, claim for compensation benefits cannot prosper.

Special mention was the Pregnant Mitral Stenosis need to continue penicillin prophylaxis as indicated in the non-pregnant state, in mild to moderate MS practice judicious use of diuretics and beta blockers. Diuretics are given to relieve pulmonary and excess systemic venous congestion. There is a need to avoid uteroplacental hypoperfusion. Beta blockers are vindicated to treat or prevent tachycardia and to optimize diastolic filling.

There is no ideal valve prosthesis for women of childbearing age who might wish to become pregnant. Bioprostheses may be subject to premature heterograft or homograft failure. Mechanical valves require anticoagulation, there is an increased risk of fetal abnormalities and mortality, and there may be an increased risk of maternal complications, including thromboembolism.

Pregnant rheumatic

The high rate of teenage pregnancies combined with an endemic prevalence of rheumatic
as true may not hold true today. Everyone’s goal is to have a low transpulmonary gradient, all the others can be modified.

Dr. Dexter Eugene Cheng and Jose Jonas del Rosario, both renowned pediatric interventionalists, skillfully guided and maneuvered us through novel catheter interventions during their discussions of Stenting Implantation of PDA in duct dependent Cyanotic heart Disease and Transcatheter Closure of VSD: What Can Safely be done.

Dr. Cheng also gave the statistics of UP-PGH cases of PDA stenting since 2005-2011. The first patient who underwent PDA stenting was a 2y/o child who weighed 8.8kg. Back in 2005, all vertical PDAs were excluded from PDA stenting due to difficulty in cannulation. The problem of unavailability of PGE1 also remained to be a major problem still to be addressed to date. With more cases coming in from different areas in the Philippines, the first vertical PDA stent was performed in 2009. The recommendation based on the experience in UP-PGH clearly points that PDA stenting is a viable alternative to surgical shunt like Blalock-Taussig in the majority of patients with duct dependent circulation. The outcomes can be improved drastically with a steady source of PGE1. In summary of Dr. Cheng’s discussion, PDA stenting is a dependable alternative to Blalock Thomas Taussig Shunt. It is with no doubt that Ventricular Septal Defect remains to be the most common cyanotic CHD among children. The standard method for the closure is still surgery however transcatheter closure to some types of VSDs is feasible. Dr. Del Rosario also emphasized on what is not amenable for this type of closure are as follows: AV Canal Type (Inlet), a large perimembranous VSD (unrestrictive), Subpulmonic VSD, those with multiple VSDs (Swiss Cheese) VSDs and VSD as a component of a more complex lesion. The first device specifically designed for membranous VSD is the Amplatzer PM VSD Occluder. With reports from Maycibel Macadaeg-Capero, MD; Justine Iris Yap, MD ♥

disease in developing countries, resulting in cardiac disease being the most important comorbid state during pregnancy. The nature of the underlying cardiac disease needs to be considered in preconception counseling and in the prevention of pregnancy. There is a need to select an adult care physician to provide and coordinate comprehensive care offer reproductive/genetic and career counselling.

Important things to be addressed in the pregnant cardiac are as follows: accurate diagnosis, assessment of the severity, Degree of impairment, evaluation of concomitant therapy, optimizing management. Pre-existing cardiac valvular lesions should be evaluated with respect to the risk they impart during the stress of pregnancy. Awareness of major cardiac drug classes that are contraindicated during pregnancy is important for the treatment of hypertension and heart failure during pregnancy. Anticoagulation during pregnancy presents unique challenges because of its maternal and fetal side effects. Anticoagulation with Warfarin or Heparin can be considered for patients with severe left atrial dilatation and Severe MS despite the presence of sinus rhythm, because of the hypercoagulable state of pregnancy. The management of cardiac disease during pregnancy poses a double challenge, management should be MULTIDISCIPLINARY utilizing OB, Cardiologist and anesthesiologist to ensure maternal survival and at the same time promote fetal well-being and to allow a gestational period sufficient for adequate fetal maturity.

Ma. Socorro Bernardino, MD ♥

Arterial Switch Operation: Past, present, and future

Lecturer: Reynante Gamponia, MD
Chief, Pediatric and Congenital Heart Disease Section, PHC
Head, Perfusion Unit, PHC

Arterial Switch operation has been the procedure of choice for cases of Transposition of the Great Arteries (TGA) wherein the aorta is switched to the pulmonary artery in position, including the coronary arteries. The procedure has evolved since then and has been subjected to different studies, revisions, queries but up to now is still very useful.

It was introduced in 1952 by Bailey who attempted transpositioning, but failed. In 1954, Mesheod and Sensing both continued the same procedure despite failures in previous attempts. They developed it into a Switch operation, mostly done on elders. Success was noted in the Switch procedure, however, the new challenge was how to transfer the coronary arteries.

In 1975, the first Arterial Switch Operation (ASO) was done but the patient died after the procedure. In 1977, Yacob, improved the procedure further instituting a two-stage repair. In 1984, Gil Manowski added further advancement by using the aide of a 2-dimensional echocardiography, used Prostaglandin inhibitor pre-operatively and neuromuscular blockade and inotropics post-operatively for better outcome. He identified retroperitoneal course of Left Coronary artery as a risk factor for procedural failure.

An algorithm on TGA was formulated. Initially, patients diagnosed with TGA were given PGE inhibitors and Balloon Atrial Septostomy. Response was noted for the next course and further evaluation was done. For patients who do not have VSD and those <2 months of age, Arterial Switch Operation was recommended. For those >2 months of age, Pulmonary Artery banding was recommended. For patients with VSD, the presence of Left Ventricular Outflow Tract obstruction was investigated. For those without LVOTO and of <3 months of age, Arterial Switch Operation was recommended. For those >3 months of age, Cardiac Catheterization was initially recommended. For patients with LVOTO, Rastelli procedure is warranted.

For the future of the procedure, LVAD, treatment of Pulmonary Hypertension, and treatment of SIRS were the suggested points for improvements with regards to the Arterial Switch Operation. As with the transfer of the coronaries, it is vital to know the size, patency and the flow of the coronaries, as by experience, they are the determining factors to the success of the transfer of the Coronaries.
ECHO SESSIONS

Do exam in the ER, CCU for prompt diagnosis

Active Cardiology Consultant at Philippine Heart Center, National Kidney and Transplant Institute, Lung Center of the Philippines. Echocardiography is a commonly used diagnostic tool. Dr. Ronald Cuyco said that the advantages of the use of echocardiography are safety, easy reproducibility, availability, low-cost, and absence of radiation. He said that at the ESC Congress, it was pointed out that with the advent of hand-held echocardiography devices, these procedures may be also performed not only within the confines of the hospital but even in an ambulance or an outside setting. Citing data from the Philippine Heart Center, he noted that 25% of all in-patient procedures were performed at ER-ICU. The primary indications for these procedures were acute myocardial infarction, aortic dissection, and pulmonary embolism.

In performing echo exams in the emergency room or in the intensive care units, the lecturer emphasized that we are able to facilitate prompt diagnosis and its complications. He emphasized that the variety of data that not only confirms diagnosis but also guides the treatment of patients. Cuyco also imparted that echocardiography may also be used to guide in the management of hemodynamic compromise especially with fluid resuscitation. Lastly, just like any other field in cardiology, advancements in echocardiography are occurring. These include myocardial contrast echocardiography, tissue Doppler imaging and 3D echocardiography. These advancement improves the capabilities of echocardiography in both emergency and critical care settings.

Jennifer Ann Cantre, MD

HEART FAILURE SESSIONS

Lecturer: Gerardo S. Manzo, MD
Assistant Medical Director, PHC
Assistant Professor, DLSU College of Medicine

Heart failure is a major cardiovascular problem. In the Philippines, the treatment modality has remained the same for years. In stages A, B, and C, lifestyle modifications and medical management has been the treatment of choice.

Preferred treatment for years the same

However, in cases of Refractory Heart Failure or stage D, the other treatment modalities such as surgical or procedural therapy has been less known to medical practitioners.

Previous surgical options were transmyocardial revascularization, end to end mitral repair, cardiomyoplasty, cor cap cardiac support device, COAPSCI LV support device, partial left venticulectomy, and stem cell therapy. These procedures have not been proven to be effective and are no longer used nowadays, with the exception of Stem cell therapy. However, Stem cell therapy results have not been validated as to its total impact in the management of Heart failure.

Mechanical Circulatory Support devices – Center Meg, Predivas, and Heartmate 2 are already in use in other parts of the country. The Center Meg and Predivas are considered as a short term device (30 days), as a bridge modality, are easy to institute, and more widely used. The Heartmate 2 is a continuous form device that works in parallel with Cardiac hemodynamics. In the REMATCH trial, patients who underwent MCS, showed 64% reduction in mortality from heart failure.

With regards to its availability in our country, both MCS and Heart transplantation have not been in Philippine practice probably due to its cost, the lack of able centers, and the lack of awareness among practitioners.

Ritchie Go, MD

Old and new biomarkers

Dr. Nelson Abelardo discussed the objectives of biomarker testing: on how to prove and refute a diagnosis of such disease, to risk stratify and screen accurately for the severity and adverse consequence, and for monitoring and therapeutic guidance.

Different biomarkers for inflammation, oxidative stress, extracellular-matrix remodeling, neurohormones, myocyte injury, myocyte stress and new biomarkers were discussed as well. Non-specific blood biomarkers in heart failure, the pathophysiology of inflammation, and how to monitor progression of heart failure were also tackled.

Dr. Romeo Divinagracia deliberated about the updates in the management of congestive heart failure which is targeted to treating the different pathologic mechanisms of the said disease. He also discussed the stages and classification of heart failure according to ACC/AHA and its class I recommendations according to stage. One of the most emphasized topics were geared towards the goals of therapy and intervention. Although many were mentioned, further studies for new therapeutic strategies are needed.

Abelardo

Divinagracia

Josephine Dionisio, MD
Risk stratification for non-cardiac surgery

Speaker: Jerelyn Adviento, MD
Philippine General Hospital

At the first ever Coronary Artery Disease (CAD) convergence conference, the case of a 62-year-old male diabetic was tackled. He is a smoker, who had myocardial infarction in 2008 and was admitted for pre-operative clearance for a spinal tumor excision, who had post-operative myocardial infarction.

The patient was labeled as intermediate risk for the procedure.

In cases of intermediate-to high-risk patients where surgery is not urgent, majority of the expert reactors would go for a coronary angiogram for complete pre-operative work up. If multi-vessel CAD is noted in pre-op coronary angiography screening and in the setting of non-urgent surgery, the heart should be prioritized and the patient should be sent for coronary artery bypass grafting. Another rational approach is to do non-invasive testing like myocardial perfusion imaging and if findings show significant ischemia, then the angiographer will proceed to coronary angiogram.

If the results of non-invasive testing are negative, we can opt for maximal medical management. It was stated that Beta blockers have shown benefit in prevention of Cardiovascular events in the peri-operative state. And that control of heart rate have shown comparable outcomes with invasive therapy in the peri-operative state.

At present, there is still no available biomarker that can determine the increased risk for peri-operative myocardial infarction.

In cases where antplatelets could not be given or in cases where there is high risk of bleeding post surgery, an option could be to do balloon stenting instead of angioplasty or if thrombus is present, thrombectomy could be done.

Based on the STICH trial it was mentioned that there is no significant difference in outcome in comparing CABG vs medical management. Hence, medical management is an option according to the more conservative experts’ panel.

In summary, approach to peri-operative evaluation should always be to stratify risk of the patient to develop peri-operative cardiovascular complications and to strategize management to improve the chance of survival. The urgency of the surgery should also be considered.

CARE Program: dos & don’ts

Cardiac rehabilitation (CARE) is a medically supervised program designed to optimize a cardiac patient’s physical, psychological and social functions, stressed Dr. Antonio Sibulo, chair of the St. Luke’s Heart Institute department of preventive cardiology and Asia Pacific Society of Cardiology Council on Preventive Cardiology.

In establishing a CARE program that is mainly concentrated on tertiary clinical settings, the important organizational aspects are: the location (gym/fitness center) and equipment (ergometer, treadmill, stepper, ECG and defibrillator), he added.

To develop efficient referral procedure it is best to offer programs that are accessible; provide flexiblrogram and ensure adequate communication between the hospital staff and practitioners.

Promotion through a PR and advertising campaign; development of an individualized goal for every patient and strategies to improve referrals and identification of common barriers to rehabilitation program are musts.

Hypertension is common among the 1,452 female teachers in the 10 public schools in the National Capital Region and Luzon where the BP ng Teacher Ko, Alaga Ko screenings took place from Oct. 23, 2010 to Dec. 17, 2011.

“Of the said figure, 34 percent are pre-hypertensive while 31 percent are hypertensive. Therefore, 65 percent are at high risk to develop CV complications,” said Dr. Reynaldo Neri, former PHA Council on Hypertension in his talk on the "Important Practical Lessons Learned from the BP ng Teacher Ko, Alaga Ko.

He added that 39 percent have moderate to excessive salt intake, 42 percent have high total cholesterol (high prevalence in Pampanga, Caloocan and Valenzuela). Sixty-eight percent have FBS>100 mg/dl and 40 percent have abnormal ECGs at the time of screenings.

Launched on Oct. 23, 2010, the 10 participating schools (Valenzuela, were randomly chosen by the quad team – PHA, Department of Education and Hypertension Society of the Philippines as partners and Bayer, Phils. as sponsor. Neri was at the helm of the PHA Council on Hypertension during the launching.

An equally indefatigable Dr. Irma Yape, who succeeded Neri, made sure that the project was on track.

The rest of the town/cities where the screenings were done were: Silang, Cavite; Manila, Pasay, Pasig, Quezon City, Marikina and Calamba, Laguna.

On the other hand, Dr. Ma. Lourdes Bunyi tackled the increasing prevalence of hypertension among the new generation in her talk on “Emerging Filipino Hypertensive Population.” The mean age of hypertensive in Presyon 2 is around 40.76 years old which is actually comparable to the
**NEWS**

26th Anniversary Celebration

Scientific Symposium on **MULTI-SPECIALTY CONCERNS IN THE MANAGEMENT AND PREVENTION OF CARDIOVASCULAR DISEASE**

AUGUST 9-10, 2012 • Garden Ballroom, EDSA, Shangri-La

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**Editorial... from Page 2**

of service that should aim to truly make an impact on the achievement of our mission and vision as an organization and not just to serve a year’s term or so. It’s not just talking about the reduction in the incidence and consequence of cardiovascular disease on the human race, it is also about our walk. For such a great vision of a CVD-free Philippines through more comprehensive preventive care initiatives and outcome measures need more than just talk.

Though visions may not be realized in our lifetimes, we can take part in the vision journey by taking full responsibility of our individual health that we can be the living examples that our patients, family and “kababayans” can mirror their lives on. Leading by example and slowly modifying human behavior towards a healthy lifestyle could catapult us towards the attainment of our purpose as The PHILIPPINE HEART ASSOCIATION. This could be the vital pathway towards making a significant impact on cardiovascular health in this country.

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**Brown... from Page 14**

paper Prevalence and Risk Factors for Aspirin Resistance Among Filipinos With Coronary Artery Disease. For three consecutive years, the Philippine Heart Center held on to the title. This is a challenge to the PHC to keep its title and go for 4-peat in the next annual convention. This could also serve as an inspiration for the other institutions. To become the Young Investigator Awardee is not just an honor to the author but to the institution as well.

The purpose of this award is to stimulate researches in Cardiology. The Philippines, as a whole, is limited with the finances needed for researches. But, this should not be a barrier to make good researches. There are so many avenues, data and information that need to be investigated and studied. Medicine and cardiology is continually evolving and discoveries are made everyday. Sometimes, the simplest things that medical practitioners overlook are the most important. This award should also challenge and inspire mentors to stimulate the minds of the younger Cardiologists especially the fellows-in-training. At the start of their training, they should be introduced to the purpose and beauty of research. There are great minds and future researchers that are just waiting to be discovered. Nobody knows as to who or what institution the next Young Investigator Awardee will be from. But during the 44th Annual PHA convention, another great mind and researcher will be discovered and awarded this title.

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**34% female... from Page 21**

data gathered from one Call Center. In the latter, the results of their annual physical exam from January 2010-Dec 2012) bared: with the mean age of 30.8 years old, there were approximately 24.17% who were hypertensive and a greater proportion are males.

Dr. Jorge Sison, stressed that hypertension is a global problem and it was projected that by the year 2025 the number is expected to escalate to 1.5 billion. In the Philippines, the trend of prevalence of hypertension is also upwards. He specified that in Presyon 2, only 20% of adult Filipinos on medication achieve BP control. He also emphasized very important findings: compared to the United States, BP control is also the predominant problem; the complications associated with hypertension is thrombosis rather than bleeding; the most common cause of death is stroke and approximately 71% of these are with uncontrolled hypertension.

In talking about metabolic syndrome, he noted the prevalence of overweight among adult Filipino, and the link between diabetes and hypertension which he termed as “Diabolical Duo.” He also announced Presyon 3 will be launched this year.

The hypertension session was facilitated by the chair Dr. Irma Marie Yape and co-chair Dr. Marlon Co.

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**With report from Gerlie Ortiz, MD**

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President’s Night
May 24, 2012
Crowne Plaza Galleria Hotel
Quezon City
UEZON CITY, May 25, 2012 – Outgoing PHA President Isabelo Ongtengco acknowledged a good number of the PHA workforce who have made invaluable contributions to the banner projects and other activities of the organization.

They are: Drs. Orlando R. Bugarin (Chair-Council on Cardiopulmonary Resuscitation) for their exemplary efforts in the furtherance of the ideals and goals of the Association by promoting the importance of CPR knowledge and by training lay and medical community.

Irma Marie R. Yape (Chair-Council on Hypertension) for their exemplary efforts in the furtherance of the ideals and goals of the Association by initiating the “BP ng Teacher ko, Alaga ko” project to promote hypertension awareness among the public school teachers.

Ma. Bernadette A. Azcuetas (Chair-Council on Rheumatic Heart Disease) for their exemplary efforts in the furtherance of the ideals and goals of the Association for conducting screenings on rheumatic fever nationwide and conducting lay education on RF-RHD.

Jose Jonas D. Del Rosario (Chair-Council on Congenital Heart Disease) for their exemplary efforts in the furtherance of the ideals and goals of the Association for conducting the 5th Camp BraveHeart entitled “Community of Heroes Working Hand in Hand” with aim of maximizing the potential of each child.

Milagros E. Yamamoto (Chair-Council on Women’s Cardiovascular Health) for their exemplary efforts in the furtherance of the ideals and goals of the Association for initiating the ASEAN Women’s Alliance Towards Cardiovascular Health (A-WATCH) during the 18th ASEAN Congress of Cardiology.

Erlyn C. Demerre (Editor-in-Chief, PHA NewsBriefs) for her exemplary efforts in the furtherance of the ideals and goals of the Association by introducing innovative articles in the newsletter and encouraging membership participation through literary contributions.

Ronaldo H. Estacio for his contributions in providing technical advice to the Association in the maintenance and upgrade of equipment for use during various CME activities and in the PHA office.