



Frontier

Pulse

NEWS OF THE QUARTER
SEPTEMBER 2008

Redefining The Frontier Of Health Care



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Frontier Lifeline

International Centre for Cardiothoracic and Vascular Diseases
& Dr. K. M. Cherian Heart Foundation



We know it by heart

From The Chairman's Desk



This quarter has flown by in a flurry of activities, namely the first Eurasian Workshop on Valve Repair conducted at our rural tertiary cardiac care unit in Parumala, a small village in Kerala and the revival in public awareness regarding organ donation.

The conference was very well received and has left a lasting impression in the minds of the participants, especially those from abroad who had a taste of our native hospitality and cuisine. The academic session was also par excellence and I would like to express my gratitude to the outstanding contributions by members of the national and international faculty including world renowned stalwarts like Dr. A.M. Calafiore, Dr. Rimantaas Benetis, Dr. Ottavio R. Alferi, Dr. Allesandro Frigiola, Dr. Thomas Salerno and Dr. Sami Kabbani. The triumph of this international event could not have been achieved without the meticulous and precise arrangements and coordination by the members of our dynamic team at Parumala, who worked tirelessly to ensure a smooth and successful conference and live workshop. This tremendous effort just goes to show that anything is possible anywhere with a little imagination and a lot of focused and coordinated effort. US President-Elect Barack Obama's "Yes, we can" is a belief which admirably reflects this accomplishment.

World Heart Day took on a special significance this year as it revolved around the heart-breaking story of one parents' loss which led to the heart-warming tale of another parents' gain. The incident of Master Hithendran's premature but timely sacrifice has fired up the awareness quotient of the public like no other and has initiated a surge in organ donation. Notable among these is the mass organ donation pledge taken by the young citizens of Erode's Siddhartha Matriculation Higher Secondary School. The Press Club of Chennai had also initiated an organ donation drive among its members which had garnered overwhelming response. I would like to express my appreciation to the Governor of Tamil Nadu, His Excellency Shri Surjit Singh Barnala who graciously presided over the function organized by the

Rotaract Club to honour Hithendran and his parents. This commendable initiative of the Chennai District Rotaract Club has furthered the awareness of the organ donation mission.

While the environmentally conscious are advocating everyone to recycle waste and take "The Green Turn", I can only say that we as a people have started and should continue to take "The Red Turn" and promote the concept of "recycling" oneself. This new-found enthusiasm in organ donation along with a constantly updated National Registry of Organ Recipients which can be instituted by the Ministry of Health, should foster a cohesive effort to ensure that no organ goes to waste. After all organ donation, like blood donation, is everyone's moral responsibility.

We also pay homage to Dr Mark Shanahan, a fine surgeon whom I have had the privilege of knowing and working with in Australia. He was the embodiment of an upright and compassionate human being and as a surgeon he has inspired and mentored many surgeons like me over the course of his 30 year career. He now joins the illustrious ranks of cardiac surgeons in the final 'Hall of Fame'.

We look forward to conducting Frontier Conclave 2008 in the next quarter along with other academic events in line with our strong philosophy in promoting constant updates in academia among clinicians. The Conclave we delve into the highly specialized field of cardio vascular genetics and we anticipate very interesting sessions by experts in this field as well as genetics in general. The cardiothoracic sessions will witness the assembly of eminent pediatric and adult cardiothoracic surgeons whose presentations and interaction will deeply benefit the delegates of this Conclave and I trust this opportunity will be well utilized by students and surgeons alike.

As India now joins the elite team of countries with Chandrayaan's Moon Mission, so too will we strive to touch the stars and make a difference with the support of an able team of likeminded colleagues and Almighty's grace.

*Dr. K.M. Cherian, MS, FRACS, DSc[Hon] DSc [HC]
Chairman & CEO*

Expanding Dimensions

SGCVC hosts World Class Conference

The Eurasian Workshop on Valve Repair held at St Gregorios Cardiovascular Centre (SGCVC), our rural tertiary care facility at Parumala, Kerala witnessed the presence and participation of outstanding, world renowned cardio vascular surgeons who are highly acclaimed experts on Valve Repair Surgery and who are also key members of the European Valve Repair Task Force.

The particular importance of this workshop is especially relevant to a rural surgical setup where the availability of artificial heart valves is few and far between. It also needs to be stressed that artificial valves may be prohibitively expensive for the rural population to afford and reinforces the way for the active training and application of valve repair techniques instead.

The workshop also offered a Wet Lab session where delegates participated in a simulated course using porcine heart valves, for which we would like to acknowledge and thank the 'Meat Products of India'. Key among the techniques demonstrated were the 'Alfieri Repair' and the 'Alfieri Bow-Stitch' by Prof. Ottavio Alfieri himself.

This humble effort was also successful in showcasing India and Kerala as a medical destination; not only for treatment and holistic recuperation but for medical training and education as well.



Invited faculty experience a traditional Kerala welcome

Expanding Dimensions

Expanding Dimensions



The Step Forward

NABH Accreditation

Frontier Lifeline has decided to initiate the exercise to implement NABH (National Accreditation for Hospital and Health Care Providers) Standards. The ten standards provide frame work for quality assurance and quality improvement for hospitals in India. An initiative by the Quality Council of India, they focus on patient safety and quality of patient care. We, at FLL, are sure the hospital would reach enviable heights in the delivery of patient centered cardiac care once the standards are fully implemented. NABH Accreditation would be an added jewel in our cap.

ISO first Annual Surveillance Audit of Laboratories 2008

Our laboratory continued to meet the ISO standards in patients' services and was granted the ISO 9001:2000 Accreditation which has been extended up to August 2010.



FLL Salutes the Nation

On the occasion of India's 61st Independence Day, FLL conducted a Flag Hoisting Ceremony. Sri. S. F. Akbar, Director, Tamilnadu Judicial Academy, presided as Chief Guest and hoisted the National Flag.



A Patriotic Salute

Expanding
Dimensions

The Heart Of the Matter



Submassive Pulmonary Embolism - A Case Report

Introduction

Pulmonary embolism (PE) accounts for many deaths worldwide. The case fatality rate for PE is approximately 15% which is more than the mortality rate for myocardial infarction. Among the major acquired risk factors for venous thromboembolism, obesity and recent surgery are important factors. Acute PE is classified into massive, submassive and small to moderate PE. We present a case of submassive pulmonary embolism in a 47-year-old lady who was successfully managed with multiple modalities of treatment in our center.

Case report

Patient was a 47-year-old lady, a known diabetic for the past 5 years, who underwent total abdominal hysterectomy in the first week of October, 2008 in a local hospital. Her preoperative cardiac evaluation was reported to be normal. On the 6th and 15th postoperative days she developed dyspnoea which was managed in the same hospital and was discharged a few days after admission. She was admitted in our center on 24th October. With severe respiratory distress. HR was 120/minute with BP of 150/90. SpO₂ was 80% with 10L of O₂. ABG showed PO₂ of 30mm Hg. Bed-side echo revealed dilated RA and RV with normal LV function. There was severe TR with a calculated RVSP of 75mmHg.

RV function was adequate though there was significant global hypokinesia in the LV. ECG showed rS pattern in lateral leads with tall R in aVr suggestive of severe RV hypertension. A diagnosis of acute pulmonary embolism on the background of recurrent PE was made. She was put on ventilator immediately and FiO₂ kept at 100% with a PEEP of 12mm Hg. Heparin infusion was started along with diuretics and digoxin. She was not given thrombolysis then as her symptoms were more than 3 weeks of duration. Her BP was maintained and RV function was adequate. PO₂ on FiO₂ of 100% was 70mm Hg. The patient's hemodynamics did not improve. She was taken up for pulmonary angiogram and the cardiac catheterisation revealed PA pressure of 90mm Hg with systemic BP of 160/90mm Hg. PA angiogram showed RPA to be full of thrombus. Only the lower lobe branch showed some antegrade flow. Upper and middle lobar arteries showed no flow. MPA and LPA were normal. There was no thrombus in IVC. A6F GL catheter was taken up to the RPA. Using 0.018 wire, the catheter was pushed into all the branches of pulmonary artery and suctioning done. Though grossly no thrombus was retrieved, the flow into all lobar arteries improved significantly. There was an immediate response in ABG and the FiO₂ could be reduced to 70% to maintain PO₂ above

The Heart Of the Matter

120mm Hg. Since RPA showed a thrombus, a PA catheter was put through RIJV right INF regular. Intra pulmonary thrombolysis was given with streptokinase (3 Lac units streptokinase followed by 1 Lac units/hour for 12 hours) for which there was significant response. Her PA pressure decreased gradually. ECG returned to normal. Her ABG improved. On 2nd day post-cath, she was extubated. With a PA pressure of 50mm Hg, she was continued on heparin with addition of oral anticoagulants. Sildenafil was also given. Echo on discharge showed normal RV dimensions with TR 1+ and calculated RVSP of 25mm Hg. She was discharged on Warfarin and diuretics on 4th November 2008.

Discussion

Pulmonary embolism can be a fatal condition if not recognized promptly. This patient typically had submassive embolism in which one third or more of pulmonary artery vasculature was obstructed. She probably had mild embolism on the 6th postoperative day which was not recognized. A combination of obesity and recent surgery-induced immobilization could be the precipitating factors (prothrombotic screening results are awaited). The goal of the therapy would be to preserve the RV function and treat the hypotension. These patients are more likely to require ventilation, thrombolytics and embolectomy. We managed our patient successfully with a combination of all these.

Though the patient was put on ventilator immediately, she failed to show improvement with respect to blood gases suggesting ventilation-perfusion mismatch. The RPA

thrombus was successfully fragmented by frequent catheter passage into all lobar arteries and suctioning. There was immediate response as evidenced by improvement in PO₂. Direct thrombolysis into PA helped in clearing the remaining thrombus. We stopped thrombolysis at 12 hours though in some cases it could be continued up to 48 hours. She would require prolonged oral anticoagulation.



RPA angiogram showing occlusion of major part of RPA and upper middle lobe branches by thrombus, Faint filling of lower lobe branch see.



After suctioning and mechanical disruption of thrombus improved flow is seen to all branches of the RPA



*Dr. Anand Srinivasan,
The Department of Cardiology and Cardiothoracic
Surgery, SGCVC, Parumala*

Conferences & Workshops



Eurasian Workshop on Valve Repair

"World Class Meeting" was the reaction of Dr. Tomas Salerno, from US after attending the first "Eurasian Workshop for Valve Repair" conducted at St Gregorios Cardiovascular Centre, Parumala, Kerala, on 12th and 13th July, 2008. It provided the opportunity to cardiac surgeons in India and other countries of Asia to learn and interact with the valve repair experts from Europe and US. The workshop was conducted as Dr. K.M. Cherian Heart Foundation's commitment to provide cardiac care of international standards to the rural population as well as to keep the cardiac surgeons from various states of India and Asia, abreast in the recent advances in cardiac surgery.

As stated by Dr. K.M. Cherian "Repairing the heart valve, instead of replacing it with a bio-prosthetic or an artificial valve, gives the patient a psychological security and satisfaction which is very important in his well being". This international workshop was aimed at popularizing modern techniques in heart valve repair and was the first of its kind to be held in Asia. It has added significance in that it was held in Parumala that houses India's first and only rural cardiac care centre in India.

Number of patients with valve disease is increasing in India due to two reasons. Firstly, Rheumatic Heart Disease is still prevalent in India especially among those with lower socio-economic status and secondly, degenerative diseases are increasing due to increasing life expectancy. It is well known

about one million people in India suffer from Rheumatic Heart Disease and 50,000 patients are added in this pool every year.

As valve repair needs expertise and not every cardiac surgeon could do this highly skilled job many senior cardiac surgeons attended this workshop. World-renowned specialists Dr. A.M. Calafiore from the University of Catania in Italy, Dr. Rimantaas Benetis of Kaunas University of Medicine in Lithuania, Dr. Ottavio R. Alferi of Ospedale San Raffaele at Milan in Italy and Dr. Allesandro Frigiola of San Donato Hospital at Milan were the directors for the workshop. Other experts who attended the workshop were Dr. Tomas Salerno of the University of Miami in Florida, U.S. and Dr. Sami Kabbani from Damascus, Syria. They were of the opinion that valve repair would be more advisable for patients with valve disease, as it retained the natural valve. Moreover, "Heart valve repair has no contra-indication such as bleeding, clot formation or infection in patients", they said. Twenty delegates from countries such as Pakistan, Malaysia, Bangladesh, Singapore, Saudi Arabia and Kuwait also attended the meet, besides 80 delegates from India.

Experts attending the workshop said valve repair was the best option for patients with a leaking mitral valve and for many with a narrowed (stenotic) valve. Compared with valve replacement, repair provided better long-term survival and preservation of heart function and lower risk of complications. They added that an improved lifestyle, a lower

A walk through the Eurasian Workshop

Interactive session



Light of knowledge



Wet Lab facilities



Evening of music & dance



Practice makes perfect



Caught in Action



Live relay in progress



A rapt audience



Faculty & delegates of the Eurasian Workshop



Innovative Benefit

Nanotechnology

Congenital and rheumatic heart diseases are major health problem in India. Many of these patients need valve replacements or conduit replacements by using biological devices such as homografts or xenografts (graft of animal origin). The prevailing socio-economic condition renders the highly priced imported valve or valve conduits out of reach for these patients. Thus there is a much-felt need to develop an indigenous high performance biological valved conduit to cater to the needs of the growing population requiring these devices.

In this regard we have attempted to develop a processed porcine pulmonary artery and bovine jugular vein, which are currently undergoing pilot clinical trials. These conduits have performed remarkably well with optimal results; moreover they are non-thrombogenic non-calcifying and non-immunogenic. They have the desirable property of remodeling and endothelialization. But our current experience in this trial suggests that the conduits function sub-optimally in high-pressure situations (systemic/pulmonary hypertension). The reason can be traced to the inherent zone of weakness in the porcine pulmonary artery along the course of its coronary artery, as well as at the valve level of bovine jugular vein. If the conduit has to function optimally these areas have to

be strengthened.

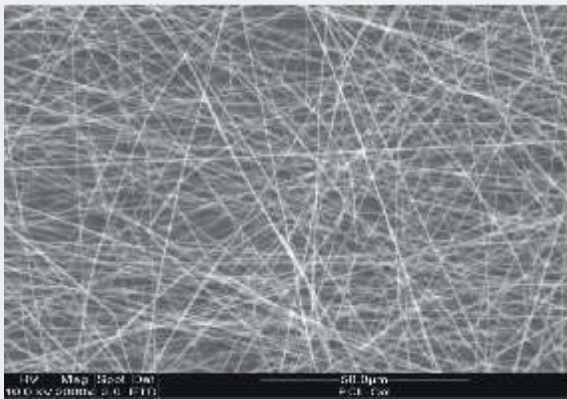
We are now exploring the possibility of using natural electrospun polymeric nanofibers and coating them onto the zone of weakness for reinforcement. This initiative involves optimization and standardization of deriving nanofibers from collagen and other biodegradable polymers through electrospinning and in-vitro testing of the nanofibers involving fiber characterization, tensile strength assessment and biocompatibility studies.

The nanofibers are to be coated onto the biological conduit in sterile conditions. The reinforced biological conduit will be tested for tensile strength, burst strength, heat stability and collagen conformity studies. After ascertaining the mechanical and collagen properties these conduit will be implanted in animal models in high pressure system after due clearance from the institutional ethical committee for human and animal research. The conduit will be followed up for mechanical performance, thrombogenicity, calcification and biocompatibility. We believe this scientific endeavor will be a step further in realizing the dream of making an indigenous versatile biological conduit which has propensity for growth in the recipient, thus becoming an autologous tissue.

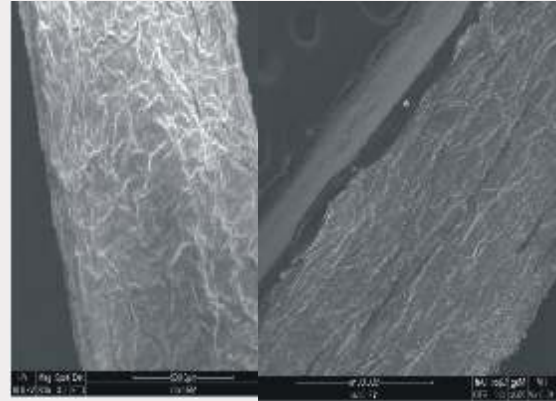
Innovative Benefit

Biodegradable nanofibers are well suited because xenografts need reinforcement and strengthening only in the initial period of implantation till cell growth occurs. Later on the biological conduit undergoes remodeling and the biodegradable nanofibers can degrade into harmless byproducts causing no ill effects to the xenograft.

This project of improvisation of the indigenous products is under the experimental stage. A major work has already been done. Selection of biodegradable polymer requires many criteria to satisfy. FLL Tissue Engineering Laboratory is functioning towards this goal to come up with these unique products.



Electrospin biodegradable collagen nanofibre



SEM picture of {a} noncoated & {b} coated bovine jugular vein



Macroscopic view of the porcine conduit after coating with collagen nanofibre.



*Dr. Soma Guhathakurta
Director, Frontier Lifeline*

Congratulations...

Dr. Soma Guhathakurta, has been declared the recipient of the prestigious "Innovative Project Award 2008" presented by the Indian National Academy of Engineering (INAE). Dr. Soma's project deals with the development and usage of Bovine Pericardium as a Biomaterial in Cardio-vascular Surgery.

DIGNITARIES DIARY

(FROM JULY 2008 TO SEPTEMBER 2008)

DATE	NAME OF THE VISITORS	PLACE	COMMENTS
08/07/08	Dr. R. Benetis	Kaunas Medical University, Lithuania	Very well organised and congratulations.
08/07/08	Dr. A. Sofrah	College of Medicine, Saudi Arabia	Amazed with well organized meeting in rural area.
11/07/08	Dr. T. Salerno	University of Miami, USA	World class institution.
13/07/08	Dr. D. Marisa	San Donato Hospital Milan, Italy	Congratulations for the splendid organization and warm hospitality.
13/07/08	Prof. Frigiola Alessandro	San Donato Hospital Milan, Italy	Congratulations, very impressive.
13/07/08	Prof. Ottavio R. Alfieri	Ospedale San Raffaele Milan, Italy	Unforgettable.
13/07/08	Dr. Kofidis Theo	NUH/NUS, Singapore	Very stimulating; the set-up is an incredible achievement. Great hospital
13/07/08	Dr. Abdulelah Murshid	Saad Specialist Hospital, Al-Khoba, Saudi Arabia	Very impressive arrangement, team and staff are fabulous. I will come again.
13/07/08	Dr. I. Al-Githmi	King Abdulaaziz University Hospital, Jeddah, Saudi Arabia	Work shop is great, full of inspiring discussion.
13/07/08	Dr. Mahendra Bafana	Dept. of CVTS, AIMS, Cochin	Wonderful set up in rural area, keen and efficient.
02/07/08	Brigadier M.N.Sree Ram	Deputy Director Medical service- ATNKEK -Area	A well conceived, well executed, professionally run institution, very impressive. God bless your institution
04/07/08	Dr. Mahendra Naroarig	Director Asian Surgical Centre Ahmedabad	Very impressive with good work. All the best.
04/07/08	Dr.M.Vijayakumar	Kumaran Children Hospital, Chennai	Very compact & extremely efficient Keep up the great work.
08/07//08	Lt. Gen, Thomas Mathew	Adjutant General Army	A very impressive hospital and an educative visit. Thank You.

DIGNITARIES DIARY

(FROM JULY 2008 TO SEPTEMBER 2008)

DATE	NAME OF THE VISITORS	PLACE	COMMENTS
16/07/08	Dr. Arvind Duggal	Advisor New Delhi	I am deeply impressed by the highly professional approach in all spheres of hospital.
25/07/08	Prof. Peter Uleine	University of Frankfurt, Germany	Very impressive institution excellent clinical results in difficult cases, please visit me in Germany.
28/07/08	Dr. George Thienue	Manufacturer - Medical Equipment, Mabag, Hamburg, Germany	Excellent organized facility. I am impressed with the high standards and collaborations. Best wishes.
29/07/08	Mr. Aurelie Jeusset	Dy. Commercial Attache, French Consulate	Really impressive and well organised.
07/08/08	Fr. Saji P. Thomas	Former Sec. to the Patriarch of Antioch, Syria	Really Dr.Cherian is a gift by our God He is increasing the valuable talents given by God. Wish you all success
15/08/08	Mr. S.F. Akbar	Dist & Session Judge Director TN State Judicial Academy Chennai	Dr.Cherian is a gift of God to humanity. Let his services flow profusely and unabatedly.
25/08/08	Mr. R.C.Badain, President, Mr. C. U. Shah	S.G.S.S. Jain AcademyClinic and Diagnostic Centre, Chennai	We are impressed with facility available and the maintenance.
29/08/08	Dr. John Valiath	Senior Consultant, Cardiac Surgeon, Razal Hospital, Muscat	Very nice to visit old friends & to see the hospital doing so well congrats to KMC
01/09/08	Dr. Nimbona Herminigilde	Director, Ministry of Foreign Relations, Bujampura	I am impressed by good services.
05/09/08	Prof. B.K. Senapati	Sambalpur University, Orissa	I am very happy to see the facilities and integrated system of development for care care of human beings. This status will not only be beneficial to Indians but will help medical tourism. All the best.

DIGNITARIES DIARY

(FROM JULY 2008 TO SEPTEMBER 2008)

DATE	NAME OF THE VISITORS	PLACE	COMMENTS
17/9/08	Sebutama Colonel	1 st Counselor of Buruzundi Embassy in Kamala and Prime Mayor of Bujumbura	I am glad and it was a surprise for me to see a hospital well organized with superior technology in heart treating. I have been operated in good condition and I cheer up the courage and the organisation.
20/09/08	Mr. S. Kalyana Sundaram	IPS Dist. Forest Officer Tiruvallur, TN	I went around various units of the hospital. All the units are maintained in high hygienic condition. The staff are very cordial & their services are very prompt. The environment is very conducive for taking treatment & get well soon. All the very best for their next assignment (i.e. Medical Village)
22/09/08	Prof. Emilio Ovuga Dean	Gulu University Gulu	Dr.Cherian and entire staff, thank you for the wonderful work to improve the quality of life of us all.
23/09/08	Dr. G.H. Mudge	Partners Healthcare, Harvard, Brigham Women's Hospital, Boston	A wonderful tour – spectacular care by the entire staff
23/09/08	Dr. Al Eisenhower	Brigham Women's Hospital, Boston	Fantastic wonderful facility and great results
23/09/08	Mr. David M. Jones	Partners International Medical Service USA.	Very impressive facilities, staff and good work
23/09/08	Ms. Susan Driscoll	Partners International Medical Service USA.	Impressive facility & warm hospitality

Tribute to Mark Xavier Shanahan

(1932-2008)



Mark Shanahan was a surgeon par excellence in an illustrious career spanning over 30 years (1963 – 1993), at St. Vincent's Hospital, Sydney, Australia. He was a pioneer of heart surgery in Australia, working on the earliest transplants, heart valve replacement and coronary artery bypass surgery and introducing new techniques such as cardioplegia, a way to preserve the heart during surgery.

Mark Shanahan was much beloved as a fine person who embodied kindness and compassion tempered with a deep sense of justice and perfection. This was reflected in his groundbreaking work as well as his interpersonal relationships which have benefited so many who have had the privilege of knowing him.

My association with Mark began in 1971; as a stranger in a strange land, a non-Australian and a non-Catholic to boot, my tentative efforts at securing a position at the prestigious St. Vincent's Hospital's Cardiothoracic Centre, Cameron Wing was successful only due to the initiative taken by Mark. My interview with him resulted in a recommendation to the Chief, Mr. Harry Windsor, who held a powerful post with the Governing Board of St. Vincent's. Despite already having a Senior Registrar, Len Golding

in place, a supernumerary position was especially created to accommodate me as I became the first Indian to work and train at St. Vincent's despite being a migrant; for that opportunity I am ever grateful. The techniques and specific skill sets which I learnt from Mark helped to hone my interests and expertise which I was then able to bring back to India; the rest as they say is history...

Mark's compassion and kindness was legendary for which I am proud to be able to quote a personal experience. We had to operate on a young boy who was the victim of a car accident. He had a ruptured aorta and we had to operate on him as an emergency. However the operation left him a paraplegic which Mark took very personally. Despite already being the father of 3 children, Mark decided to adopt him as one of his own and took total responsibility for him. Mark was also very helpful and accommodating as he assisted in the securing of training positions for many of my colleagues from India after my return.

Mark Shanahan, 75, died at his home in Merimbula on August 7th 2008, after valiantly battling with cancer. He was revered by those who worked with him and knew him and had touched so many lives with his brilliance and graciousness. He will be sadly missed but fondly remembered. We as surgeons have a responsibility to carry on his legacy and keep his memory alive by following the ethics and principles which governed the life and work of Mark Shanahan, a giant among men.

by

K.M. Cherian,
F.R.A.C.S.

Spoken From The Heart

Hope all is well with you and the staff - I enjoyed the last newsletter very much and have shown it to many people here. Your work is very impressive - nothing like it that I have run across anywhere else.

*Dr. E. William Jackson, M.D.
Deseret International Foundation, US*

Thanks for the good reception, care and comfort
Mrs. Kiiza Lilian, Uganda

Thanks for your help
Ms. Sabriya Sultan, Iraq

I would like to express my deep expression for all the nurses here (1st floor) to help the patient well. I thank Dr. Cherian and all the staff for helping us to save my daughter.
Baby. Fatima Ahmed, Iraq

I would suggest the nursing staff to take a course in Arabic language because almost many patients are Arabs and they can communicate with them comfortably, or they can bring dictionary to each floor in order to facilitate their communication with the patients.
Baby. Sajjad Juniad Khadehem, Iraq

It is difficult to believe that Arpan Vaidya, now 19 years of age and a brilliant II year Engineering student ranked 3rd at the University level in his 1st year exams, was born with an extremely complex birth defect of the heart (Transposition of great arteries). He aspires to be an Electronics and Communication Engineer in the near future, and thanks to Dr. K. M. Cherian, his dreams can now become a reality. Dr Cherian supported by his able team, performed 4 extremely complex and risky open heart surgeries on Arpan; the first was done when he was barely 1 month old and the last as recent as on the 4th July 2008.

Very rarely are such complex heart surgeries performed nowadays; he owes his life to the consummate and innovative skills of Dr. K.M. Cherian. At 6 years of age when he came back with a severe blood flow block to the lungs, Dr. Cherian devised an innovative double barrel technique by which the block was relieved. He underwent a third surgery to place a tube that was accommodated within his chest.

As he was growing, the tube placed earlier needed a change. Recently had undergone the fourth open heart surgery and did well. This time, the tube placed was a bigger, adult-sized tube as he has completed his growth. The tube placed in the heart was made of poly tetra fluoro ethylene (PTFE) and had a valve. This tube with the valve is made in-house at Frontier Lifeline Hospital and is not available anywhere else in India.

Enhancing Knowledge

July - September

Dr. R. Prem Sekar participated on 13th July 2008 in the panel discussion on "Congenital Cardiac Failure" organized by the Annual Conference and CME 2008 of the Chennai City Branch of the Indian Academy of Pediatrics, Chennai.

Dr. Sarasa Bharathy Arumugam gave invited lectures on "Principles of Electron Microscopy" & "Applied Electron Microscopy" at the National Workshop on Electron Microscopy, held in Trivandrum on 15th & 16th July 2008.

Dr. R. Prem Sekar was invited to present the lecture on "Acyanotic Heart Disease" at the Intensive Clinical Training Program for Postgraduates organized by Indian Academy of Pediatrics, Chennai City Branch, (IAP – CCB) at the Institute of Child Health & Hospital for Children, Chennai on 19th July 2008

Dr. K. M. Cherian was invited as the Chief Guest at the Silver Jubilee Celebration on the 27th of July 2008 conducted by the Eye Research Foundation (Vijaya Hospital), Chennai. He delivered a lecture on "Should Medical Practitioners Drive Their Own Future?".

Dr. K.M. Cherian participated in the CME Program on Contemporary Cardiac Practice organized in Ludhiana, Punjab by Sigma New Life Heart Institute, where he gave a presentation on the "An overview of past, present and future of cardiac practice in India" on July 20th 2008.

Dr. K.M.Cherian participated as the Chief Guest for the CME Program on Current Advancement in Clinical Cardiology - 2008, organized by Devaki EECPCentre and IPER Organization on the 10th of August 2008 at Madurai. He was felicitated by Mr V.K. Subburaj, Secretary, Dept. of Health and Family Welfare, Government of Tamilnadu and delivered an Oration on "An Overview - Past, Present and Future of Cardiac Practice in India".

Dr. Joy Thomas was invited to speak during the session on 'Enhanced External Counter Pulsation: A novel approach to Heart Failure and Refractory Angina' during the CME Program on Current Advancement in Clinical Cardiology - 2008, organized by Devaki EECPCentre and IPER Organization on the 10th of August 2008 at Madurai. He addressed the gathering on "Current Advancement in Non-drug Management of Heart Failure".

Dr. C.K. Das was invited to speak during the session on 'Enhanced External Counter Pulsation: A novel approach to Heart Failure and Refractory Angina' during the CME Program on Current Advancement in Clinical Cardiology - 2008, organized by Devaki EECPCentre and IPER Organization on the 10th of August 2008 at Madurai. He addressed the gathering on "EECP-Evidence based treatment for Refractory Angina".

Dr. K.M. Cherian was invited to speak at the 22nd EACTS Annual Meeting held at Lisbon between the 14th and 16th of September 2008 where he gave a presentation on "Xenograft as alternative CV implants". Dr Cherian also hosted a dinner for likeminded eminent members of various premier cardiac establishments such as Dr. William Northrup, Dr. Steven Goldstein, Dr. Zohair Al Halees, Dr. W. Novick, Dr. Sami Kabbani, Dr. Calafiore, Dr. Ottavio Alfieri and Dr. Thomas Pezzella.

Common aims in addressing the increasing incidence of cardiac diseases worldwide were discussed during this occasion, which was graced by the presence of Ambassador Mrs. Nilima Mitra, Indian Ambassador to Portugal.

Dr. Sanjay Cherian has embarked on an Executive MBA Program at Oxford University for 1 year from September 2008.



H.E. Mrs. Nilima Mitra with esteemed guests during Lisbon dinner



Dr. Cherian with guests at the Dinner hosted in Lisbon

Avenues

For Improvement



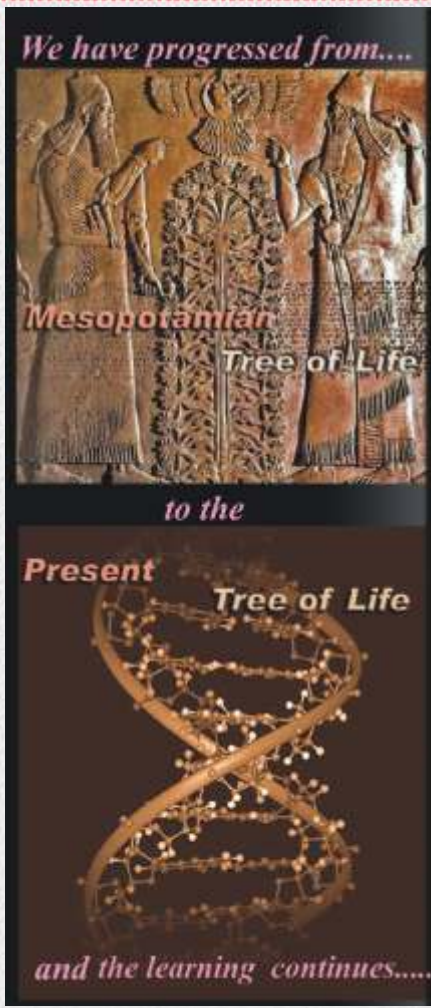
FRONTIER CONCLAVE 2008

This year, Frontier Conclave 2008 will focus on “Heart & Helix” devoted to Genetics, with an aim to understand the heart at the molecular level. This will be followed by an intense update in Cardiothoracic Surgery. An eminent faculty working in these cutting edge fields will enhance our understanding and promote an exciting climate of knowledge and discovery.

*Academic Program:
www.frontierlifeline.com/forthcoming_events.asp*

*Online Registration:
www.eregnow.com?conclave*

*Enquiries:
genetix2008@gmail.com*



Frontier Lifeline

&

Dr. K.M.Cherian Heart Foundation

is pleased to announce

Frontier Conclave 2008

to be held in Chennai

between 5th & 7th Dec.2008

*An Exciting Weekend
dedicated to
Understanding of the Heart
In Health & Disease*

*1st: John W. Kirilino Memorial Orator
Dr. Lawrence H. Cohn*

*2nd: Robert E. Karp Memorial Orator
Dr. Christo I. Tchervenkov*

*3rd: Solomon Victor Memorial Orator
Dr. Jean Des Lauriers*



Organised by

**FRONTIER LIFELINE
&
Dr. K.M.CHERIAN HEART**

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**Post
Graduate
Update
in
Clinical Cardiology
2009**

Avenues For Improvement



Best Practices While Serving a Difficult Customer

Difficulty and trouble come to many at any workplace, and the biggest complexity is an encounter with a difficult customer. All said and done there's no escape and he or she has to be dealt with and the difficulty dissipated. The undeniable fact being that customers matter and they matter tremendously to any organization big or small. They ultimately help ventures to grow and corporate to lead and becoming shining examples in their business.

The three main effective ways of handling a customer are "Tact, Diplomacy and Patience". When we have one-to-one interaction, a better understanding and



clearer picture of any problem he or she faces unfolds. When we demonstrate the ability to communicate effectively with patients and to perceive their requirements and limitations, we achieve more valuable and longstanding results.

A difficult customer would mostly clamor about the inefficiencies of the hospital. When encountering such a demanding customer, we face a stiff challenge. Unfortunately such irritations result in increased stress levels.

Hence one needs to look for possible solutions to the problem which ensures that peace and profitability results. Here are a few steps that can be put into practice everyday.

1) Be mentally prepared to face a troubled customer. This implies an extra effort to stay

calm and prepare an attitude of openness and concern

- 2) Listen without interrupting. As a result, you will be able to focus on the issue at hand. Let the customer finish. Let him feel he has been truly heard and this may help pacify him too.
- 3) Remind yourself that you are not there to prove the customer wrong. Focus on the problem and resolve the situation without arguing.
- 4) Stay calm and in control throughout your conversation. Your patience can take him or her by surprise. Create an environment for a positive response.
- 5) Acknowledge the customers concerns. Be sympathetic and reiterate everything that has been said. Try to make him or her understand that you will do your best to resolve any problem.
- 6) Customer satisfaction is the ultimate goal. Identify the circumstance which has led to the problem and then deal with it. If it is beyond your control, seek the help of your senior or colleague and you will get the support and direction you need.

Only then indeed customers are won, problems are solved and solutions are found. As such the customer is at ease and you are happy at the end of the day!



Ms. Susan Cherian

PRA, Department of Clinical Laboratory & Transfusion Medicine

Achievements

Hearts prevail over Time & Distance

The successfully completed heart transplants in recent days is proof of the phenomenal advancement in telecommunications and transportation in our nation. 3 transplants conducted within one month illustrates that what used to take days to organize and coordinate can be achieved in a matter of hours, well within the critical window of opportunity permissible, known as the 'golden hour', for such delicate and complex procedures.

The lightning speed in which suitable recipients were identified for the donor's organs speaks of the commitment of those involved in order to offer a fresh lease to the anxious recipients awaiting the critical phone call. In the case of the first transplant, once the donor was confirmed, a child in Bangalore named Ms. Abirami was identified as an ideal candidate. Good planning and smooth coordination enabled immediate notification to Abirami's parents on Monday night. Arrangements were hastily made to transport her to Chennai where her new heart was waiting. The heart itself found its way smoothly from Apollo Specialty hospital, where it was expertly harvested by Frontier Lifeline's Organ Harvest Team, to Frontier Lifeline Hospital in a record time of 11 minutes. The route which usually takes a minimum of 40 minutes under normal traffic conditions was magically cleared during peak traffic hours with the timely help of Chennai's Traffic Police. Within 28 minutes of having been removed from the donor's body, the heart found itself placed in its new home and it was a matter of expert surgical skills which got the heart beating once more, 90 minutes after it had last beat within the chest of the donor. It was a miracle for all to witness as the heart

pumped strongly within Abirami's chest, infusing her frail form with rich oxygenated blood.



Hithendran's ultimate sacrifice benefits Abirami

But miracles often have a human element as well and that came in the form of the donor Hithendran, and his parents, both of whom are doctors. Under such emotionally charged circumstances the pragmatic decision of his parents to donate his organs takes great strength of spirit. As doctors, the implications and benefits of this altruistic act were not lost on them and they remained true to their noble profession of selfless service. Today Hithendran continues to live on through at least 8 persons who enjoy a better quality of life through his premature sacrifice.



Abirami at 12 days postop

Achievements

It is important to ease the interstate organ donation and retrieval policies which would enormously aid in the immediate availability and match of donors with recipients. Transplantation of organs has been seen to be highly successful especially with young patients. The rate of survival in the first year in patients below 5 years of age is 95%, 75% for patients below 10 years and 40 % for patients below 20 years of age. Successful re-transplantation is also possible. Heart transplants cost as much as any other transplant operations. But recurring costs are incurred through immunosuppressant drugs which are a life-long necessity. However, unlike kidney and liver transplants, the expense of these drugs is much less as the heart primarily performs a mechanical action rather than a metabolic function. After the first year the cost comes down significantly, averaging to about

Rs 500/- a month.

A census taken in 2006 stated that Tamil Nadu has reported the maximum number (55,145) of road accidents accounting for 14% of such accidents in the country. The number of organs which can be made available for the benefit of countless others is a potentially achievable figure. But this can be accomplished only if there is a mass awakening among the greater public on the invaluable service this selfless act provides. Successful organ transplantation can take on a fresh lease of life through enlightened donors and their families; together with the support of Grief Counselors and Transplant Coordinators and a comprehensive Registry of potential Recipients that is meticulously maintained, we as a nation of 1.2 billion, should be able to cater to the needs of the millions waiting for new organs and a new life.



Dr. K.M. Cherian with part of the Transplant Team



Some of the overseas children treated at Frontier Lifeline during this quarter

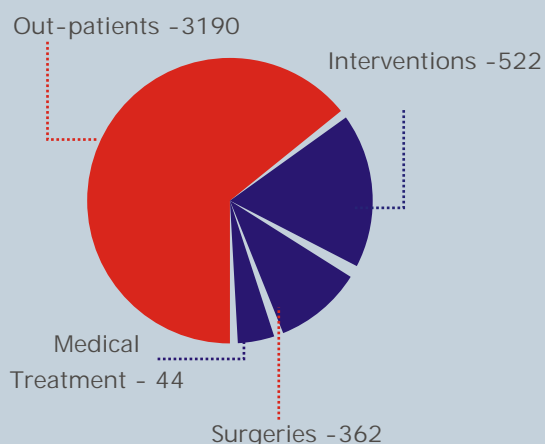
INPATIENT DOMICILE DISTRIBUTION

	Feb 04 - June 08	July	August	Sep	Total
Chennai City	7092	179	145	156	7572
Other parts of TN	3827	86	82	75	4070
Andaman & Nicobar	25				25
Andhra Pradesh	458	11	9	7	485
Assam	21		2		23
Bihar	18		1		19
Chattisgarh	27				27
Delhi	14	3	1		18
Goa	11				11
Gujarat	424	6	2	3	435
Haryana	2				2
Jammu & Kashmir	6				6
Jharkand	20		1		21
Karnataka	72		4	1	77
Kerala	214	4	1	4	223
Madhya Pradesh	63	1		3	67
Maharashtra	234	1	5	1	241
Manipur	2				2
Meghalaya	2				2
Nagaland	1				1
Orissa	31				31
Pondicherry	281	4		4	289
Punjab	5				5
Rajasthan	21	1	2	1	25
Tirupura	3				3
Uttar Pradesh	41	2		1	44
West Bengal	187	2	2	3	194
TOTAL	13102	300	257	259	13918

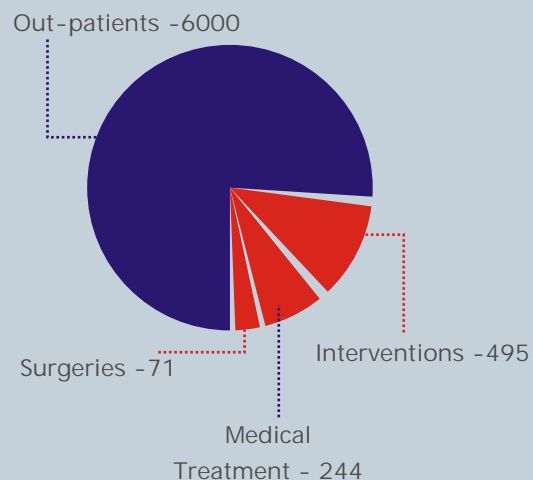
PATIENTS FROM FOREIGN COUNTRIES

	Feb 04 - June 08	July	August	Sep	Total
Afghanistan	1				1
Australia	2				2
Bahrain	64	2	1		67
Bangladesh	41				41
Bhutan	2				2
Brunei	1				1
Ethiopia	2		1	1	4
Eritrea			1		1
Myanmar	7				7
Fiji	133	9	2	1	145
Guyana	64				64
Indonesia	2				2
Iraq	372	16	22	32	442
Kenya	77			1	78
Malaysia	15			1	16
Maldives	30				30
Mauritius	3				3
Nepal	3				3
Nigeria	10				10
Pakistan	13				13
Saudi Arabia	1		1		2
Singapore	6				6
Sri Lanka	86	2	1	2	91
Sudan	6				6
Switzerland	1				1
Tanzania	15		1	1	17
UAE	49	3	1	1	54
USA	8				8
Uganda	94	2	4	3	103
United Kindom	2				2
Yemen	1				1
TOTAL	1111	34	35	43	1223

FRONTIER LIFELINE (JULY - SEPTEMBER 2008)



PARUMALA (JULY - SEPTEMBER 2008)



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