



# KMCH Touch

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QUARTERLY NEWS JOURNAL OF KOVAI MEDICAL CENTER AND HOSPITAL

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## UPCOMING EVENTS

### CME MEETING

IMA PALAKKAD - May 2017  
IMA NAMAKKAL - June 2017

NATIONAL CONFERENCE  
"FERTO G SUMMIT 2017"  
June 2017



*Dr. Arun N Palaniswami, Director, KMCH and Dr. Muthusami KR, NABH Coordinator KMCH, Receiving the award "Quality Beyond Accreditation - 2017 AHPI" at Chennai from Dr. J. Radhakrishnan IAS, Principal Secretary to Govt., in presence of Dr. Girdhar J Gyani Director General at QUALITY COUNCIL OF INDIA and Dr. V. Ganesh KMCH Hospital Administrator (Patient Services) Epidemiologist.*



*A "Break - Through" in Stroke Management*

## Chairman's Desk



2017 is a tough year for Tamil Nadu. Severe drought situation is prevailing in our region. Unstable political conditions hinder the progress of our state. In this harsh state of affair hospital is working hard to make the customer comfortable and affordable. We are making all efforts to see our patients are taken care of well.

The older section of the hospital needs modification. We are taking steps to improve the infrastructure of the hospital. In this process, we will have 2 more operation theatres and improved facilities for birth room areas. First time we will have fetal medicine section in our hospital. After a long delay the Mobile Stroke Unit will be in operation soon. New CT scan, second MRI and ultra-modern ultra sounds will be added. Pulmonology department is planning for bronchial thermoplasty. At last we got navigational equipments for neurosurgical department in addition to the great neuro microscope.

Our consultants are now becoming more and more enthusiastic about the robotic surgical procedures. New consultants have joined with us in various needed areas of our requirement.

In short we are always in forefront in delivering advanced services in our hospital with updated equipments and infrastructure. We are thankful to our referring doctors and patient for their continued support. Above all our employees and consultants are the backbone of our strength.

All well and happens well.

Thanks,

**Dr. Nalla G Palaniswami**  
Chairman & Managing Director

## Editorial Board



*“Our patients are the most important visitor to our premises. We are not doing any favour to our patients; they are doing us a big favour by giving us an opportunity to treat them”.*

Warm regards from the Editorial Desk. KMCH has once again set the pace for new innovations that are transformational in patient care. The launch of Asia’s first “Mobile Stroke Unit” is a truly path breaking effort by our Chairman to ensure a positive change to patients with Stroke in our area.

We are glad to see the good increase in foreign patients stepping into KMCH. We are extremely grateful for their faith in us. It is extremely heartening to see a number of Communications from our peripheral Center like Sulus for “KMCH Touch”. We are keen to encourage more articles from other KMCH centers.

This issue encompasses a wide variety of cases and procedures that showcase our strengths at KMCH. The “Did You Know” column has been well received, this issue we have done a column on Dr. Roentgen.

We are proud to share with you that KMCH has received “Best Brand in the Region 2017” award and “Quality Beyond Accreditation 2017 AHPI” award

We hope you enjoy this issue, please send Feedback or ways to improve at [drkrishnanswaminathan@kmchhospitals.com](mailto:drkrishnanswaminathan@kmchhospitals.com)



## World Cancer Day - 2017



*Dr. Arun N Palaniswami and Team during a signature campaign program to promote World Cancer Day - 2017 at Coimbatore Railway Junction*

Every year 4<sup>th</sup> of February is observed as world cancer day, which is an initiative of UICC (Union of International Cancer control). Cancer incidence has increased globally and also in India. According to recent data about 1.85 crore cancer patients were diagnosed per year all over the world and about 18 lakhs new cancer cases are diagnosed in India every year. About 10 million cancer deaths happened all over the world in the year 2016. Unfortunately incidence of cancer is expected to rise and double in the next 5 to 10 years.

Several advances have happened in screening, diagnosis and treatment of cancer. In 1970's about 25 percent of cancer patients were cured but this has increased to 50 percent presently. This is mainly because of increase in awareness regarding early diagnosis and treatment of cancer. Majority of cancers can be cured if diagnosed early. Cancer treatment involves surgery, radiotherapy and chemotherapy and all these modalities, have made the treatment accurate and safer.

Presently at KMCH we pride in personalized care and treatment in cancer management. Combined surgery has become less mutilating and Radiation Therapy has become more precise with the development of technology. Chemotherapy is more targeted. With the advancement in genetic technology and immunotherapy, in the coming decade it is predicted to treat cancer with oral and injectable medicines and even the advanced disease will be well controlled and treated as chronic disease. The community will be dealing more of patients living with cancer rather than dying of cancer.

In KMCH, we are fully equipped with the state of art treatment which include Laparoscopic and Robotic surgery for cancer. Our Radiotherapy unit here is fully equipped to treat any type of cancer and also capable of doing specialised Radiotherapy like Stereotactic Radiotherapy and 4D Radiotherapy which is very unique of its kind in Coimbatore. We also have team of dedicated doctors in each speciality of oncology who discuss within themselves regularly and decide on the right direction of treatment for each and every cancer patients.

Finally the theme of world cancer day this year is "We can I Can" which means every one of us individually and collectively come together and contribute to the eradication and cure of cancer. The signature campaign by KMCH to-day along with a special. Health package (just at Rs 999) is towards spreading this message. Dr. Arun N Palaniswami, Director KMCH along with Chief Guest Mr. S. Saravanan (Deputy Commissioner of Police – Traffic) strated off the signature campaign. Without common man participation and contribution we will not be able to win over this deadly disease. SO LET US ALL COME TOGETHER TO CONQUER CANCER.



## Penetrating Abdominal Trauma due to Industrial Accident Managed by our Team of Experts

**Dr. P. Selvarathinam, Dr. K.J. Kirubanand, Dr. V. Vasanthakumar, Dr. V. Ramesh, Dr. K. Kavin,  
Dr. S. Vadivel and Dr. L.L. Dhivya Senthil (KMCH Sular Hospital, Sular)**



22 year old Male had accidental industrial injury in the lower abdomen initially treated elsewhere with suturing of abdominal wound. He was admitted in our hospital with pain abdomen and inability to pass urine. USG abdomen showed subcutaneous edema and air pockets near the wound. CT abdomen showed pneumoperitoneum with free fluid and cystogram ruled out bladder injury. He was optimized with fluid resuscitation, ryles tube decompression, broad spectrum antibiotics and catheter drainage of bladder. Emergency laparotomy showed ileal contusions of size 3x2cm and 2x1cm with transmural defect of 0.5 x 1 cm which was covered by omentum with fecal contamination of peritoneal cavity. Unhealthy segment of ileum was resected and temporary end ileostomy was constructed with proximal resected end of ileum and distal resected ileal end kept as mucous fistula in lower end of midline wound & thorough peritoneal lavage was given.

Post operatively patient developed sepsis with multi-organ dysfunction and was managed in ICU for 16 days with ventilator support. BP and renal parameters improved with ionotrops. ARDS and VAP was managed with Positive pressure ventilation, chest physiotherapy and & broad spectrum antibiotics. Patient had poor respiratory effort due to pneumonitis & malnutrition, tracheostomy was

done on 8<sup>th</sup> post operative day to enhance the weaning process. Tracheal secretions were drained by frequent tracheal toileting and his respiratory efforts improved. Patient developed sudden respiratory distress with fall in oxygen saturation and mucous plug obstructing the airway was removed with help of bronchoscopy.

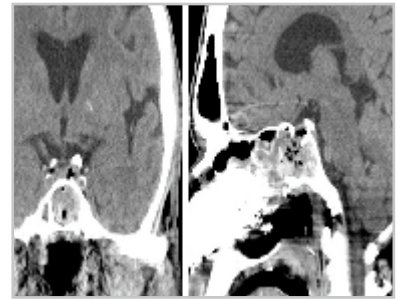
Nutrition was improved with albumin infusion, TPN and high proteins diet by RT feeds. Ileostomy stoma function was satisfactory and oral feeds was started on 17<sup>th</sup> post operative day. Metabolic encephalopathy due to sepsis and dyselectrolytemia improved during the course of treatment. Under the care of team of experts he recovered from sepsis and multi-organ failure and discharged on 24<sup>th</sup> post operative day. On review at 6<sup>th</sup> week he has gained weight and Ileostomy stoma was functioning well and he is awaiting for ileostomy closure.

## Acromegaly due to Pituitary Microadenoma - A Case Report

**Dr. R. Vishnu, Dr. S. Shanthanam, Dr. Krishnan Swaminathan and Dr. J.K.B.C. Parthiban**

*Introduction:* Acromegaly is a chronic disease, usually due to hypersecretion of Growth Hormone (GH) by a pituitary adenoma. It is associated with an increased risk of morbidity and sometimes mortality, like insulin resistant diabetes mellitus, cardio pulmonary changes, malignant disease (colon cancer), etc., Surgical removal of the tumor through transnasal trans sphenoid route, microscopic or endoscopic, is presently considered the treatment of choice.

*Case Report:* A 54 year old male was referred to us from ophthalmology, presenting with open angle glaucoma, where he was noticed with external features of acromegaly. His MRI (Magnetic Resonance Imaging) showed a microadenoma of 7 mm in left pituitary gland and his hormonal workup showed an elevated growth hormone and Insulin-like growth factor, confirming the diagnosis of GH hypersecreting tumor. Treatment was optimised and operated with trans nasal trans sphenoid microscopic removal of tumor. His post operative GH values got normalised. He is on follow up and is doing well.



*Discussion:* The word acromegaly comes from the Greek words, acro meaning “extremities” and megaly meaning “enlargement”. GH hypersecretion is usually the result of a somatotrope adenoma, which can be microadenoma or macroadenoma but may rarely be caused by extrapituitary lesions ( $<1\%$ ). Acromegaly is rare, with a prevalence of 50 to 70 cases per million and an incidence of 3 cases per million per year. These adenomas are never malignant, but can have significant morbidity and mortality. Protean manifestations of acromegaly are indolent and often are not clinically diagnosed for 10 years or more. Acral bony overgrowth resulting in frontal bossing, increased hand and foot size, prognathism, increased heel pad thickness, a large fleshy nose, arthropathy, carpal tunnel syndrome, visceromegaly, cardiomegaly, macroglossia occurs.

The most significant clinical impact occurs with respect to the cardiovascular system increasing the risk of mortality by three fold. Coronary heart disease, cardiomyopathy with arrhythmias, left ventricular hypertrophy, decreased diastolic function, and hypertension ultimately occur in most patients if untreated. Upper airway obstruction with sleep apnea occurs in more than 60% of patients and is associated with both soft tissue laryngeal airway obstruction and central sleep dysfunction.

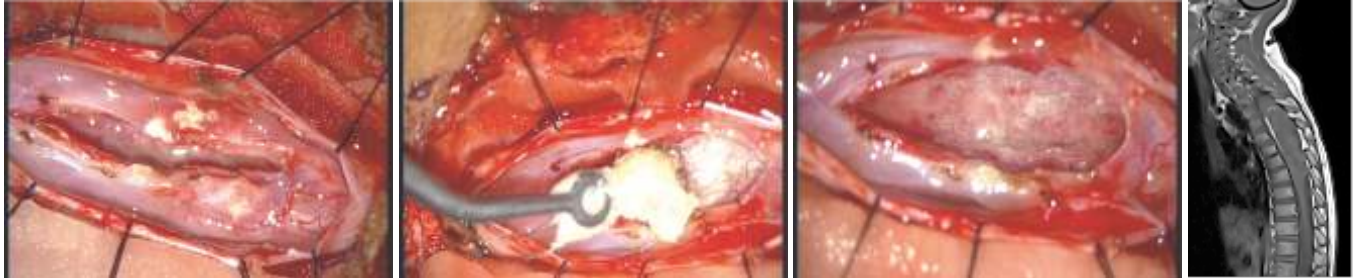
Acromegaly is associated with an increased risk of colon polyps and mortality from colonic malignancy; polyps are diagnosed in up to one-third of patients. Somatostatin analogues are used as adjuvant treatment for preoperative shrinkage of large invasive macroadenomas, immediate relief of debilitating symptoms, and reduction of GH hypersecretion; in frail patients experiencing morbidity; and in patients who decline surgery or, when surgery fails, to achieve biochemical control.

Acromegaly is most often caused by a macroadenomas ( $>10$  mm) with microadenomas contributing to less than one third of these cases. Mestron A et al (2004) in their epidemiological study on acromegaly based on Spanish Acromegaly registry, identified 314 patients (26%) with microadenoma among 1196 acromegalic patients. Serri O et al in their follow up study, identified 8 out of 25 patients (32%) with microadenoma. Similarly, De P et al in their retrospective analysis of 90 acromegalic patients in Wales, found microadenomas in 32% of their patients. Acromegaly is a chronic disease with often delayed presentation, at least in Indian subcontinent, often delayed by 4-10 years. So the size of the adenomas are often large and are nearly always visible on conventional MRI. However, in rare circumstances, acromegalic patients without an ectopic source will not have image evidence of a tumor. Management of these patients poses special challenge, and once ectopic source of GH/growth-hormone-releasing hormone (GHRH) is ruled out, an exploration of pituitary might be useful. Khandelwal D et al reported one such case with no radiological evidence of a tumor, but was identified intraoperatively. Lonsdale RR et al reported on 6 patients with no radiological evidence of tumor in conventional MRI, treated surgically.

*Conclusion:* Acromegaly is a rare disorder due to hypersecretion of growth hormone from pituitary origin. It usually presents with systemic complications like cardiomyopathy, insulin resistant diabetes, arthropathy, etc., & most of the patients have no knowledge about clinical features of acromegaly. The survival is reduced by an average of 10 years compared with an age-matched control population. So early diagnosis & treatment of acromegaly is needed to prevent future complications.

## Isolated Intra Medullary Dermoid Cyst of Thoracic Cord in the absence of Spinal Dysraphism or Dermal Sinus Tract- a rare case

Dr. S. Shanthanam and Dr. J.K.B.C. Parthiban



**Introduction:** Spinal dermoid cyst are rare lesions, can be congenital or acquired and result from inclusion of ectodermal cell rest. They can be located anywhere, cervical, thoracic or lumbar, can be extradural, intradural extra medullary or intra medullary. They constitute < 1% of primary spinal cord tumors. Owing to the complex embryology of secondary neurulation, dermoid cyst are more common in lumbosacral region, and are usually extramedullary or juxta medullary. Also they are more often associated with spinal dysraphism or dermal sinus tract. An intra medullary location of dermoid cyst in the thoracic cord in the absence of spinal dysraphism or dermal sinus tract is rarely reported in literature.

**Case report:** A three year female child, born with no perinatal problems and with no developmental milestone delay, presented with history of gait disturbance of 1 month duration, which gradually worsened to complete loss of ability to walk. On examination, the spinomotor system revealed a spastic paraparesis of grade 2/5. The Magnetic Resonance Imaging of the child suggested an intramedullary lesion of the thoracic cord. The child was operated with suspension laminoplasty with tumor excision, the child made a remarkable improvement in motor power, and was ambulant without support by 1 week. The Histopathology suggested a Dermoid cyst. The child is on regular follow up.

**Discussion:** The earliest description is by Verratus in 1745 and its rarity recognised by Sir John Bland-Sutton in 1889. Wilson reported 3 in 35 patients, Kwinta in 1 of 185 cases (0.54%). Von Bostroom (1897) claimed inclusion of totipotent ectodermal cells before neural tube closure. Holmdahl blamed secondary neurulation for it. It arises due either to congenital inclusion of ectodermal cells or to migration these cells or to the presence of growth regulating factors released within central nervous system. Aalst JV found 1 patient with no dermal sinus among 7 Dermoids as also Girishan S in their series of 50 dermoids. In our case report, intra operatively, we identified a stalk of attachment of the lesion through the cord to the dura, which supports the various theories of congenital origin.

*Congratulations*

**Dr. Preithy Uthamalingam**

Junior Consultant Pathologist - KMCH

has received the

*"Best Paper" award on 8<sup>th</sup> International CME on Oncopathology*  
conducted by International society of Oncopathology (ISOpath) in Pune, January 2017.

Title of the Paper: *"Impact of focality and histology in prognosticating early and operable breast carcinomas"*

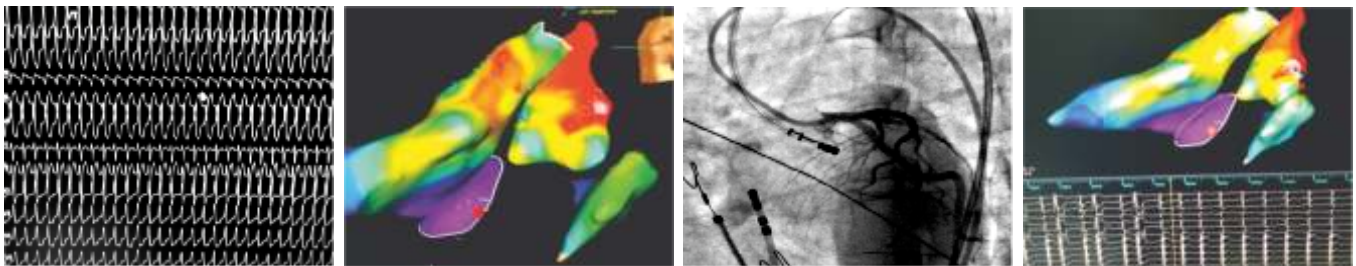


## Ablation Of Ventricular Tachycardia Arising From Left Coronary Cusp of Aortic Valve

**Dr. M. Lawrance Jesuraj** MD., DM., CEPS (USA), CCDS(USA), PDF(EP).

We report two interesting cases of Ventricular Tachycardia (VT) arising from left coronary cusps (LCC). Although Ventricular Tachycardia arising from right ventricular outflow tract (RVOT) is not uncommon, VTs from coronary cusps are rare. Location of tachycardia close to ostium of left main coronary artery (LMCA) makes ablation of these VTs more complicated and difficult.

*Case No 1:* A twenty four year old male from Salem was referred as a case of recurrent VT, not controlled by drugs, for radio frequency ablation. Baseline ECG showed multiple episodes of VT with LBBB morphology. Patient was taken up for EP study, and mapping showed VT arising from LCC. Simultaneous contrast injection showed VT origin close to ostium of LMCA. With care, RFA was delivered in this location with termination of VT during the RFA. Patient was discharged next day and is doing well on follow-up.



*Case No 2:* A twenty one year old female – a nursing student, came with recurrent VT. Patient was taken up for EP study and showed earliest activation in both posterior RVOT and LCC. First RFA was delivered at RVOT, with termination of VT, but isoprenaline re-induced the VT. So LCC was mapped, showing earlier activation and RFA at this site very close to LMCA ostium terminated the VT which was not inducible post RFA. Patient was discharged next day and is doing well with no recurrence of VT. Ventricular Tachycardia originating from the aortic cusps is rare. The high-frequency component in the local electrogram and the prompt response to RF energy suggest the location of the arrhythmia origin superficially in the aortic cusp. It is amenable to RF ablation, but care needs to be taken due to the proximity of important structures. Use of low energy and angiography to assess distance from the coronary arteries helps increase the safety of this procedure.

*Safety of ablation in the Sinuses of Valsalva:* There is a cause for concern when catheter ablation is performed in the SOV. First RF lesions might not only affect the intimal layer of the aorta but also the deeper structures such as the media of the vessel, depending on the energy source used. As the RCC and LCC give rise to the right coronary artery and the left main stem, respectively, in several cases, the ablation site is in close proximity to the coronary vessels in the RCC and LCC. Therefore, there exists a substantial risk for spasm, damage to, or occlusion of coronary arteries when ablating in these two SOV. Since coronary artery occlusion has been described, the visualization of the coronary arteries is recommended by most authors before starting ablation. If the ablation catheter cannot be placed in a stable position, it may be preferable to protect the related coronary artery by cannulation with a 5F right or left Judkin's catheter. If the catheter is even minutely dislodged, energy delivery should be discontinued immediately. As proposed by most authors, a distance of >1.0 cm from the ablation catheter-tip to both the right and left coronary ostia seems to be safe, even though a distance of at least 5–8 mm might be adequate. Success rates and outcome after ablation within the Sinus of Valsalva Initial success rate: Usually, after a careful mapping of other potential ablation sites, the initial success rate of ablation within the SOV is high and only few RF applications are necessary to eliminate the arrhythmogenic focus.

*Conclusion:* Certainly, a profound knowledge of the anatomy of the heart, particularly the structural relationships between the RVOT, LVOT, and the aortic root, is crucial for safe and effective ablation in the SOV. When ablation is performed with careful consideration to the safety aspects mentioned above, ablation in the SOV could be preferable and the approach of choice.

## MVT (Medical Value Travel) across the Geographies



*Dr. Arun N Palaniswami, Director, KMCH  
with an overseas Delegate at Addis Ababa*



*Dr. Arun N Palaniswami, Director, KMCH &  
Mr. V. Anand, CMO, KMCH explaining MVT process to a facilitator*

While we are busy in servicing the local population, we do sincerely focus in extending the value added services to international patients through our MVT (Medical Value Travel) team.

The last couple of years with an able guidance of Dr. Arun N Palaniswami Director, KMCH, the MVT team at KMCH brought in laurels in terms of upholding the reputation of this great city Coimbatore. Today as a Corporate Healthcare Institution, KMCH is proud in treating and servicing patients across the geographies.

The clinical expertise and the advanced Infrastructure at KMCH brings in quality treatment at an affordable cost. Patient who have enjoyed the benefit of MVT slowly started recommending their friends and relatives to our hospital. “Word of mouth” has again proved the power of Positive Marketing with no cost !

KMCH receives patients at regular intervals from Northeast of India and Bangladesh, in addition we also receive patients from Oman, Kenya, Tanzania, Saudi Arabia, Sudan, Rwanda , Zambia and Yemen.

We consciously upgrade the services & Infrastructure to ensure that the MVT patients get their value for money.



*Dr. Thomas Abraham with MVT patient from Oman*



*Chariman Dr. Nalla G Palaniswami with  
MVT patient from Sudan*

## Mobile Stroke Unit: “A Game Changer”



***Chairman Dr. Nalla G Palanişwami flagging off the “Asia’s First Mobile Stroke Unit at KMCH”***

At KMCH, in recent years, Interventional Medical practitioners are increasingly adapting to change with the use of “Imaging” Technology.

This break-through in stroke technology will have a huge impact in a country like India where more than one million people are affected by stroke every year. A vast majority of these patients continue to remain paralyzed and finally die secondary to infections and debilitating bedsores. The financial loss to the country runs in thousands of crores. The key challenge that this country faces towards making availability of this treatment to a much larger population is enabling the treatment to start within 3 hours, that too after a CT scan under the care of a stroke neurologist. Stroke therapy has been a challenge not only in India, but across the globe because of two primary reasons. One, the first-line treatment which is instilling the clot buster drug, should be initiated within the first 3 hours of the stroke.

Further, a stroke need not be because of a blood clot, which has blocked a vessel. It can also be because of bleeding into the brain tissue. One requires the clot buster drug whereas if the paralysis is because of bleeding, then the clot buster drug will make the patient worse. Thus, it is of paramount importance that the patient has a CT scan within the therapeutic window of 3 hours. If the CT is normal, only then the drug can be given.

Further, several scientific studies have shown beyond doubt that when the larger vessels of the brain are blocked, then recanalization rates of the drug will be optimal and these would require a mechanical device to physically remove the clot. Thus, came the stent retriever and suction devices exclusively developed to remove blood clots from blocked blood vessels in the brain.

Thus, it is easy to understand that for ideal treatment a patient with stroke requires a CT scan and a CT angiography to be done at the earliest. To circumvent this problem, a center in Germany a few years ago in collaboration with Schiller USA developed an ambulance, which incorporated a CT scanner and an ICU which enabled the vehicle with a team of medical staff to reach the site of stroke, which in many cases was the house and perform a CT to initiate therapy within this window period of 3 hours. Following the success of the German group, a few hospitals in the United States namely the Cleveland clinic and the Houston Medical Center developed a similar strategy and named this vehicle as the mobile stroke unit. Currently, there are about 10 hospitals worldwide addressing stroke through the mobile stroke unit.





***“Asia’s First Mobile Stroke Unit at KMCH”***



***Dr. Mathew Cherian addressing the gathering during the launch of “Asia’s First Mobile Stroke Unit at KMCH”***

The concept is revolutionary, but then will it work in a country like India?

Mobile Stroke Units are specialized ambulances staffed with a nurse, paramedic, emergency personnel and CT technologist. The unit also contains lab testing equipment and a CT scanner, which is required to diagnose the type of stroke. A stroke physician at the main hospital evaluated each patient via telemedicine and a neuroradiologist remotely assessed CT images. Two-way video conferencing allowed communication with the patient, family and stroke experts. The CT image is an important diagnostic test distinguishing a hemorrhagic (bleeding) stroke from ischemic stroke (blood clot blocking vessels and blood flow). The treatment for these types of strokes is different, and cannot be started until the CT scan is complete.

Spearheading this change in the management of stroke, Kovai Medical Center and Hospitals under the leadership of its Chairman, Dr. Nalla G Palaniswami, after several discussions with Schiller USA decided to be the first hospital in Asia to try to develop a similar strategy by ordering a mobile stroke unit, which was specifically developed for Indian roads. “Our ultimate goal is to show that patients treated on the mobile stroke unit will have better outcomes because of earlier treatment and, therefore, will have fewer long-term acute care needs and/or rehabilitation needs,” Says Dr. Palanisami Across the country, there is excitement as health care providers are keenly watching whether the same model can transform the treatment of stroke in India.

Kovai Medical Center Hospitals has a team of passionate neurologists and interventional radiologists spearheaded by the Director of Quality, Dr. Arun N Palaniswami, who himself is keen to implement code stroke, which he believes will be the most efficient stroke system available in this country with dedicated hotlines that link up to the hospital and the mobile stroke unit, they are confident that they can ensure that a larger number of patients can receive treatment within the golden hour. Tamilnadu may be an ideal state to start this program says the Chairman of the Institution. He believes that the overall literacy rate is good for people to understand this concept and further the quality of the roads are also a good standard, which will enable the vehicle to reach even a village within 100 to 150 kilometres. What is unique about the mobile stroke unit is that CT scanning can be performed even as the vehicle moves and the drug can also be administered during transit. This means that cooperation was required from The Atomic Commission Energy of India to build the vehicle in such a way that it is safe during the CT scanning. Further, we need the support of the Police Department and the RTO to ensure that unobstructed movements of these vehicles are allowed to save precious lives.

Starting a form of treatment, which is currently limited to a few hospitals in the most advanced countries in the world, definitely can be challenging. However, the city of Coimbatore will be making history in this area for having taking up this challenge and pioneering a form of treatment, which they strongly hope will be replicated across the Globe.

## Multidisciplinary Treatment of High Grade Metastatic Spinal Cord Compression with Paraparesis

**Dr. Sreedharan Namboothiri, Dr. Abhishek Das, Dr. Alagappan Ranjith** (*Orthopaedic Spine Surgery*)

**Dr. Subramaniam** (*Radiation Oncology*), **Dr. Ajit Shinto** (*Nuclear Medicine*) and **Dr. Firoz Rajan** (*Surgical Oncology*), **KMCH, Coimbatore**



**Introduction:** Spinal surgery remains an integral treatment component in the continuously shifting landscape of managing patients with metastatic cancer. The goals of surgery in patients with metastatic epidural spinal cord compression (MESCC) include restoration /preservation of neurological function, spinal stability and pain relief. The functional status of cancer patients at initial presentation correlates with long-term quality of life and survival, with ambulatory patients surviving longer than patients who have lost the ability to ambulate at initial presentation, according to literature. However, the challenge lies in identifying the most appropriate patient for surgery. Here we present the successful multidisciplinary treatment of a patient presented with advanced spinal cord compression and neurological deficits from thyroid metastasis.

**Case Report:** A 70 years old male with sedentary life style presented to us with complaints of back pain for a duration of 6 months, inability to walk for 8 days, and retention of urine for last 3 days, for which he had a urinary Foleys' Catheterisation done elsewhere. On examination, he was found to be moderately nourished and the general examination revealed no abnormalities. There was tenderness over dorso-lumbar region and sacral region, lower limb power left sided noted to be 3/5, and right sided 2/5, with intact sensation, but loss of anal tone. So a diagnosis of metastatic spine tumour with high grade epidural spinal cord compression was made. He underwent laminectomy, decompression of dura and pedicle screw fixation from D10 to L2 level as Emergency. In post-operative period patient regained his bilateral lower limb power rapidly within 3<sup>rd</sup> POD and on 5th Postop day urinary catheter was removed after ensuring proper bladder control.

Followingly for primary tumour identification workup on USG neck, right thyroid nodule (0.9cm) along with ipsilateral level- II lymph node identified. Then after multidisciplinary discussion patient underwent Near Total Thyroidectomy and HPE & IHC report revealed metastatic follicular carcinoma of thyroid. rh-TSH augmented low dose whole body scan revealed significant functioning mets in neck, D12 and sacral region, hence high dosage I-131 ablation therapy given, which went uneventfully. So, in a span on three weeks' time, patient discharged in a comfortable unaided walking condition with good bowel and bladder control. Subsequently, he underwent high dose fractionated radiation therapy covering the operated site. It's 3 months post-op since surgery, patient is doing well, he is walking normally, with complete return of bladder function.

**Discussion:** Primary goals of treatment in patient with Metastatic Epidural Spinal Cord Compression include preservation or restoration of neurological function and spinal stability, local tumour control, and pain relief. With multidisciplinary collaboration, including surgery, radiotherapy, chemotherapy, radioiodine (I-131), bisphosphonates and other new therapies, excellent long term results could be obtained even for these apparently devastating conditions.

## First in Asia, KMCH performs successful New Generation Heart Valve Replacement on Beating Heart



*Dr. Nalla G Palaniswami, Dr. Arun N Palaniswami,  
Dr. Prashant Vaijyanath, Dr. Thomas Alexander with Patient  
Mr. O.P. Narayanasamy*

The Kovai Medical Center & Hospital, Coimbatore achieved a significant milestone by advancing a next generation, disruptive, pre-packaged, ready-for-use, self-expanding trans-catheter aortic heart valve. The Heart Institute Team at KMCH Dr. Prashant Vaijyanath, Director of Cardiac Surgery & Dr Thomas Alexander. Consultant Interventional Cardiologist did the first implantation of the "Venibri Valve" in a 76 years old patient suffering from severe aortic stenosis on Feb 10<sup>th</sup> 2017, the patient is doing fine & getting ready for discharge in just 3 days. About 5 years ago the patient had undergone bypass surgery elsewhere & now found to have Critical Aortic Valve Stenosis which ordinarily would have certainly necessitated for a repeat high risk open heart surgery to replace the

diseased heart valve, but KMCH doctors team thought the other way round. After confirming the appropriate valve size for the patient, a 26mm Venibri Valve System incorporating the pre-crimped, pre-loaded, pre-packaged "dry" tissue technology was brought in from Colorado USA. The delivery system was then inserted into the femoral artery over the guide-wire. Total time from opening the ready-for-use Venibri System to valve deployment was approximately just 15 minutes.

The operators were absolutely impressed with the clinical performance of the valve. Dr Thomas Alexander commented, that "The system is very easy to use and quite helpful in saving precious time for the patients. It provides an opportunity to treat emergent, severe and critical aortic stenosis conditions with ease and also effectively". Dr Prashant Vaijyanath, said that, "Dry tissue technology has become another important milestone since the first ever TAVR case in 2002. The advantages of this classic system is that, it turned a complex TAVR procedure into a relatively much easier one, like a PCI procedure. I believe physicians and patients will broadly benefit from this new technology". Dr Nalla G Palaniswami Chairman KMCH stated, "This successful First-in-Man Implantation of the new generation heart valve in Asia is a significant milestone for high end technology at KMCH, the value of the "dry" tissue technology will be a meaningful advancement for the treatment of severe Aortic Valve Stenosis.

*Congratulations*

### **Dr. M. Lawrance Jesuraj**

Consultant Interventional Cardiologist and Electrophysiologist - KMCH

for having cleared *CEPS (Certified Electrophysiology Specialist)*,  
by IBHRE (International Board of Heart Rhythm Examiners, USA) in 2017.

He had already cleared *CCDS (Certified Cardiac Device Specialist)*,  
by the same board in 2015.

Internationally this certification has been adopted as the standard of heart rhythm competency for health care professionals.

He is the 2<sup>nd</sup> Electro physiologist from Tamil Nadu and fifth overall from India to have both the certifications.



## Second Annual Conference of the Society of Therapeutic Neuro-Intervention



*Dr. Nalla G Palaniswami, Dr. Arun N Palaniswami, Dr. V. Kumaran,  
Dr. Mathew Cherian with STNI Delegates*

Our Neuro Interventional Radiology department has stepped ahead to ensure that they are keeping pace with the Neuro Interventional physician across the globe in the notion of “KYS – Knowledge Sharing” and ultimately to give best resolution to KMCH Patients. Keeping this as an eye ball objective, Dr. Mathew Cherian, Chief of Interventional Radiology and Diagnostic Imaging at Kovai Medical Center and Hospitals, organized a “SECOND ANNUAL CONFERENCE OF THE SOCIETY OF THERAPEUTIC NEURO-INTERVENTION” from 2<sup>nd</sup> to 4<sup>th</sup> March 2017 at Kovai Medical Center, Coimbatore.

Neuro-Interventional Radiology is relatively recent sub-specialty where complex diseases involving the blood vessels of the brain and spinal cord are treated using image guidance without opening the skull. The procedure primarily involves navigating a catheter, which is a fine tube, through a small puncture made in the blood vessel of the thigh or the hand. These catheters are then used as pathways to insert miniature surgical instruments that can work like plugs or agents that open a block. The field of Neuro-Interventional Radiology has grown rapidly in the last 20 years and today diseases like a bulge in a blood vessel (aneurysm), which results in blood leaking on the surface of the brain and abnormal clusters of blood vessels, which can also rupture, are all treated by specialized coils or glue to ensure that these abnormal blood vessels are completely sealed thus preventing another bleed, but probably nothing has got more world attention than the invention of a whole set of new devices that can remove blood clot from a blood vessel in the brain thus removing a block, which has caused a stroke. More than 1 million patients die or permanently disabled due to stroke every year in India. A large percentage of these patients can return back to normal life provided the block in the blood vessel is removed within the 6 hours of stroke (golden period). Neuro-Interventional physicians today work 24 x 7 to ensure that this is possible.

The Society of Therapeutic Neuro-Intervention was created 5 years ago with a single aim of bringing together all physicians across the country and from the SAARC nations to ensure that they were exposed to the current indications for endovascular treatment and the latest technologies that are available across the world. Further, it was a platform created for all physicians practicing this specialty to share their experiences.

In addition to this, more than 50 Indian leaders from the field of Neuro-Interventional Radiology and Neurosciences gave lectures, conducted workshops and chairing sessions. Each day was dedicated for a specialized disease and the final day includes sessions showcasing the most complex cases done across the globe to ensure that Indian doctors will have a more comprehensive knowledge of working with the latest technology in these difficult clinical situations. The Organizing Secretary of the Congress is Dr. Mathew Cherian, Chief of Interventional Radiology and Diagnostic Imaging at Kovai Medical Center and Hospitals with more than 25 years of experience in the field of Neuro-Intervention. The Center has established itself as a forerunner in Interventional Radiology over the past two and half decades and has done several thousand procedures. The Center also has a dedicated Neuro-Vascular Angiographic Suite to perform these complex procedures in the brain. One of the key features of the Congress will be to propagate information on the management of acute stroke by using devices for the removal of clots. Several of the international faculty have pioneered stroke treatment across the globe. Special mention has to be made for Dr. Mayank Goyal from Calgary, Canada for the extensive research that he has done to establish the current protocols for the management of stroke.

## Chain of Survival:

### “Rebirth of Post LSCS Mother with Cardiac Arrest due to Platinum Hours of Resuscitation”

**Dr. Lakshmikanthcharan & Dr. Priya Dharshan, Dept. of Critical Care Medicine**

Mrs. Sulochana.S 30 yrs old female G2P2L1A0 (Previous LSCS) was admitted in a private hospital for safe confinement. She was planned and taken for elective LSCS. Intra operatively after delivery of child, patient developed severe hypotension, bradycardia and cardiac arrest (pulseless electrical activity (PEA)). Surgeon initiated cardiopulmonary resuscitation (CPR) and airway was secured. Return of spontaneous circulation was achieved after 2 cycle of CPR. Patient had severe hypotension, which was resuscitated with fluids. Surgeon made a call to duty intensivist in our hospital and requested for an urgent transfer. Transfer was initiated immediately by our intensive care unit (ICU) team. When our team reached the hospital patient had suffered another cardiac arrest which was resuscitated. Post resuscitation patient was unconscious with dilated pupil, nil motor response and hemodynamics was maintained with multiple vasopressors. Transport was initiated after going through our checklist and explaining high risk to the family. She continued to be hypotensive and hypoxic, which was efficiently managed by our transport team. On arrival in our ER she once again developed PEA which was resuscitated as per ACLS protocol. On arrival to Intensive care unit, patient was unconscious with dilated pupils and had severe hypotension and hypoxia.

Lab parameters showed severe Disseminated intravascular coagulation (fibrinogen level  $<50$ ), high anion gap acidosis with normal renal and liver function. USG abdomen did not show any free fluid collection and uterus was well contracted. Invasive hemodynamic monitoring was instituted. Patient needed multiple vasopressors at very high dose. Patient had severe Acute Respiratory Distress Syndrome (ARDS),  $PaO_2/FiO_2$  of  $<100$  requiring high PEEP and  $FiO_2$ . Coagulopathy was corrected with appropriate amounts of cryoprecipitate, fresh frozen plasma, platelets, red cells. With the clinical picture of DIC, ARDS and severe shock, probable diagnosis of amniotic fluid embolism was considered.

After correction of coagulopathy, induction of hypothermia was planned as a part of post resuscitation care. When the patient was assessed, she was obeying simple commands and hence hypothermia was deferred. Cardiac evaluation revealed severe LV dysfunction probably due to multiple cardiac arrests. She was slowly weaned off inotropes and ventilation on Day 3. She was extubated and shifted to ward on Day 5. This patient management highlights the importance of good primary care, co-ordinated inter-hospital transfer by a dedicated team and multi disciplinary care in tertiary hospital for survival of critically ill patients. Surgeon recognised the arrest, started CPR and initiated transfer immediately. Dedicated and trained ICU team handled the transport very well despite multiple cardiac arrests. Further appropriate management and multi organ support in ICU led to her survival.

*Congratulations*

**Dr. J.K.B.C. Parthiban**

Consultant Neuro Surgeon - KMCH

Towards Been Selected as the Founder President of the following recently

*Tamilnadu and Pondicherry Association of Neuro Surgeons (TANPANS)2017*

*Coimbatore Association of Neuro Surgeons (CANS)2016*

## “CODE BLUE: We are here to save Lives”



Our hospital has one of the efficient and best In-hospital resuscitation protocols. Survival with good neurological status from our In-hospital resuscitation is in par with International standards. Conducting regular training, mock drill and setting up good protocol help us to achieve this higher standard.

Team members of our code blue are trained twice a year by instructors from American Heart Association. Subsequently these team members train all the other employees of the hospital.

Training for the code blue team includes Basic Life Support, Advanced Cardiac Life Support, Acute Coronary Syndrome and Stroke. Hospital also has acquired necessary infrastructure to do this simulation based training.

## Did You Know?



Wilhelm Röntgen is considered as the Father of Diagnostic radiology. On 8th November 1895, he produced electromagnetic radiation in a wave length range Known as X- rays or Röntgen ray. This led him to Nobel prize in physics in 1901. With this, he laid the foundation for diagnostic radiology. Not many know that he was expelled from high school initially! He took the very first picture of his wife's hand and she exclaimed looking at her Skeleton “ I have seen my death!” A collection of his papers are held at National Library of Medicine in Bethesda, Maryland. – *Wilhelm Röntgen*

*Congratulations*

A Study was done by

**Dr. Prakash Balasubramanian**

Consultant Neuro Physician - KMCH

on the topic of

*“Role of Vitamin D in the outcome of Ischemic Stroke - A Randomized Controlled Trial”*

and was published in the Journal of Clinical and Diagnostic Research on Feb 2017.



## Every Woman with an Active Sexual Life must Undergo Pap Smear Test, Once in 3 - 5 Years

**Dr. Anbukani Subbian** , Consultant Gyn Oncologist, KMCH

If numbers are to be believed, one in every four women who dies of cervical cancer is Indian. “Early diagnosis of cervical cancer and the right kind of treatment can cure this killer disease. Sadly, cervical cancer shows no signs or symptoms of its existence in early stages. About 99% of cervical cancer is caused by the Human Papilloma Virus (HPV) Only at a later stage do patients suffering from cervical cancer, display symptoms like pain / bleeding during sexual intercourse, more than normal vaginal bleeding, post menopausal bleeding and pelvic pain. Since cervical cancer shows no signs or symptoms of its existence in early stages, it makes it all the more important for women who have active sexual life should undergo the pap smear test once in every three years”. Dr. Anbukani says. Doctor adds that in India majority of women are diagnosed of cervical cancer in the third or final stage and by then it is too late to cure the patient. All that doctors can do is to control and not necessarily cure the cancer and make her feel comfortable. A pap smear test may cost a few hundreds but it surely goes a long way in saving the woman and her family on the whole.

In Coimbatore, KMCH is armed with the best of experts and the hospital is equipped with state-of-the-art technology to diagnose, treat and also cure many types of cancer. In this hospital patients are given the option to undergo treatment of cancer through the robotic procedure. “This is not a procedure that is done by robots, instead we take advantage of the robotic platform to perform this procedure. Surgeon sits in a console and robotic arms are used in this procedure. The outcome is the same as the laparoscopic procedure, called Minimally Invasive Surgery (MIS). At KMCH the patient who opts for the robotic procedure is charged the same as laparoscopic procedure”. Dr. Anbukani says.

The Advantage of this procedure is less post - operative pain, early recovery & return to work & avoiding long scars.

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## KMCH ICU Update - The Outreach Programme

Kovai Medical Center Hospital is one of the pioneers in developing Critical Care unit as an independent super specialty. It has dedicated ICU to treat surgical, trauma, medical, coronary, neuro, pediatric and transplant patients with total bed strength of 150. It has got the state of art infrastructure and managed by full time intensivists with well trained nurses, respiratory therapists and clinical pharmacists.

KMCH ICU UPDATE is a theme based CME conducted annually by the department of Critical Care Medicine for the past 12 years. As a part of ICU UPDATE, last year we have started OUTREACH PROGRAMME, aimed at educating paramedics working in ICU in nearby towns & smaller cities. Last two programs were conducted at Karur and Erode, over 150 participants at each of the events, made the event a great success.

The main objective of this program is to train Critical Care Nurses and paramedics with basics and latest developments in Critical Care. They will be trained on various aspects like trauma care, basic and advanced cardiac life support, hemodynamic monitoring, mechanical ventilator care, treating poison cases, infection control in ICU and transport of critically ill patients.

Paramedical professionals like Critical Care nurses, Emergency nurses, Respiratory therapists form the first contact in management of critically ill patients. They also play significant role in day to day care.

This one day programme had six lectures and four workshops, held at IMA HALL Salem. Inaugurated by Dr.M.K.Selvakkalajiyam (President) & Dr.P. Saralabai (Secretary) IMA Salem. Followed by this Dr.P. Vivekananthan, Dr.T.Gopinathan and Dr.S.Ashok Kumar Department of Critical Care Medicine, KMCH, Coimbatore, gave training to 150 Critical Care Nurses, technicians and paramedical staff.

## KMCH Camp Photos:



*Signature Campaign started by Deputy Commissioner of Police (Traffic) Mr. S. Saravanan at Coimbatore Railway Station on World Cancer Day 4<sup>th</sup> February 2017*



*Dr. A. Ganesan at CME Meeting - Ooty*



*Dr. Lenin Babu V and Dr. Krishnan Swaminathan interacting with public at Dharapuram Medical Camp*



*Inaugurating KMCH Medical Camp at Collector's Office by Thiru. T.N. Hariharan I.A.S., Coimbatore District Collector*



*Dr. Ajith Shinto delivering a speech during "Breast Clinic Camp" at Paris Hall, Holy Trinity Cathedral, Ramanathapuram, Coimbatore*

## Welcome to KMCH Family



**Dr. Anbukkani** did her MBBS in Coimbatore Medical College and her Diploma in Obstetrics and Gynaecology from Stanley Medical College, Chennai. She subsequently obtained her Diplomate in OBGYN (DNB) from the National Board of Examinations. In 2009, Dr. Anbukkani obtained the MRCOG awarded by the Royal College of Obstetricians and Gynecologists, in London, United Kingdom. Her oncology training is from Kidwai Institute of Oncology, which is the Regional Cancer Institute of Karnataka and her last assignment was as a consultant at Apollo hospitals in Bangalore. Joined KMCH as Consultant Gyn Oncologist.



**Dr. Arun** has completed MBBS at Coimbatore Medical College at Coimbatore (2003-2009), then he pursued MD (Pulmonary Medicine) at Sawai ManSingh Medical College –Jaipur. Worked as Senior Resident in the Department of Pulmonary Medicine at Yenepoya Medical College, Mangalore (2011-2014) and then joined as Senior Resident in the Department of Pulmonary Medicine at Kasturba Medical College, Mangalore (2015-2017). Now he joined KMCH Suler Hospital, at Suler as a Consultant Pulmonologist.



**Dr. A.P. Shankar Narayanan** did his MBBS, M.S General Surgery and MCh. Surgical Gastroenterology Sri Ramachandra Medical College, Chennai. Further he did his FICS (Fellow in International College of Surgeons) September 22, 2015, FMAS (Fellowship in Minimal Access Surgery) July 15, 2016, FIAGES (Fellowship Indian Association of Gastroendo Surgeons January 11, 2017. He joined KMCH as a Junior Consultant Surgical Gastroenterologist and Laparoscopic Surgeon.

*Congratulations*

A case report on  
*Kell Alloimmunization in Pregnancy: Lessons to be learnt by*  
**Dr. Rajeswari Subramaniyan,**  
 Consultant Transfusion Medicine - KMCH





# KMCH Coimbatore leads South India in Robotic Surgery

Advanced

**da Vinci Si HD**  
SURGICAL SYSTEM

for the first time in region and performs  
successful precision surgeries

We congratulate our  
Robotic Surgery team

They have given relief to  
patients with less scar,  
minimal incision, less blood loss,  
fast relief and a cost at par  
with laparoscopic procedures



## Robotic Surgery Team



**Dr. A. Ganesan**  
MS., FRCS (LON), FRCS (EDIN),  
FRCS (UK), CCST (UK)  
(General Surgery)



**Dr. N. Kuppurajan**  
M.S., (General Surgery),  
FRCS (EDIN), FRCS (UROL),  
DIPMIS (STRAUSBURG) (Urology)



**Dr. K.S. Rajkumar**  
MS., FRCS (EDIN)  
(General Surgery)



**Dr. M. Anandan**  
MS., MCh (Uro.), Fellowship in  
Minimally Invasive Urology  
(Robotic Surgery)



**Dr. Anbukkani Subbian**  
DGO, DNB, MRCOG (UK)  
Fellow in Gynecologic Oncology,  
Consultant Gynec Oncologist

*Book-Post*

*If Undelivered please return to*



## Kovai Medical Center and Hospital



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**MAKING IMPOSSIBLE, POSSIBLE**

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