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CAPSULE

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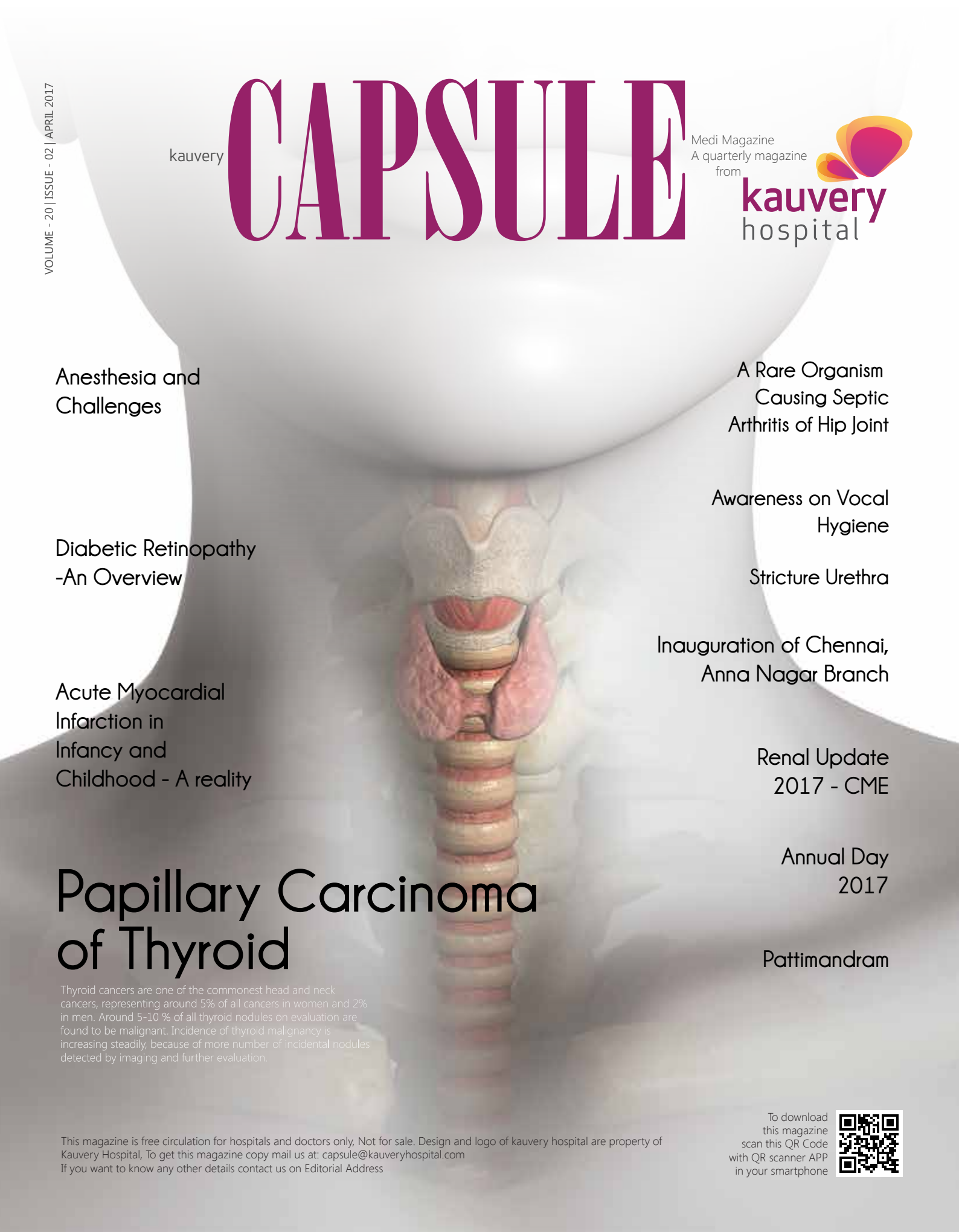

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Stricture Urethra

Inauguration of Chennai, Anna Nagar Branch

Acute Myocardial Infarction in Infancy and Childhood - A reality

Renal Update 2017 - CME

Annual Day 2017

Pattimandram

Papillary Carcinoma of Thyroid

Thyroid cancers are one of the commonest head and neck cancers, representing around 5% of all cancers in women and 2% in men. Around 5-10 % of all thyroid nodules on evaluation are found to be malignant. Incidence of thyroid malignancy is increasing steadily, because of more number of incidental nodules detected by imaging and further evaluation.

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CAPSULE MAGAZINE

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EDITORIAL OFFICE
Kauvery Hospital
VI Floor, Administrative Office,
#6, Royal Road, Cantonment,
Tiruchirappalli-620001.
Call us at (431) 40 77 777
E: capsule@kauveryhospital.com
W: www. kauveryhospital.com

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HOD & Senior consultant Urologist & Andrologist
Transplant Surgeon
Laparoscopic surgeon
Kauvery Kidney Centre, Tennur, Trichy

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M.S(General Surgery)., M.Ch(Plastic & Reconstructive Surgery)
Spine & Orthopaedics Surgeon

Dr. Balamurali
MBBS, MRCS (Edin),
FRCS (Surgical Neurology), MD (UK) Neurologist & Neurosurgeon
Kauvery Hospital, Chennai


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Dr. S. Senthil Kumar, Ms., DNB., (Uro)
HOD & Senior consultant Urologist &
Andrologist, Transplant Surgeon, Laparoscopic surgeon

Dr. N. Karthickeyan, M.S., MRCS(Edinburgh)., DNB., M.Ch (Urology)
Consultant Urologist
Kauvery Kidney Centre, Tennur, Trichy


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FRCS(Surgery)., FRCS(Trauma & Ortho).,
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PG(Orthopedic surgery)
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From the Editor's Desk

Dear Readers,

Welcome to the 20th edition of capsule. It gives me immense happiness to connect with you through this capsule magazine. 2017 has been very eventful which consists of Annual Day of our hospital, and series of event to commemorate the Kidney Day, observed on March 9th.

18th annual day of Kauvery hospital, was celebrated on 5th of March. It's a day to rejoice, celebrate and bring the joy of togetherness within the Kauvery Family.

Kauvery hospital to commemorate Kidney day themed on "Obesity and Kidney Disease", organized a series of events like water bottle campaigns, one week urology camp at Thennur Kauvery Hospital, for the public from 6th to 10th March 2017.

A Talk Show (Pattimandram) was conducted on 9th March by renowned orator of international repute, Mr.Suki Sivam," to enhance the health awareness among the public. More than 750 people participated in the splendid event.
A Urology CME titled "Renal Update -2017", focusing on obesity and renal disease was conducted on 19th of March at Trichy. More than 150 practicing doctors were extensively benefitted out of the program.

Creating awareness and enhancing the health consciousness among public will help sustain the health and leap towards better living conditions.
Together lets work towards for the betterment of humanity.

Dr. S. Senthil Kumar, Ms., DNB., (Uro)
HOD & Senior consultant Urologist and Andrologist
Transplant Surgeon
Laparoscopic surgeon
Kauvery Kidney Centre, Tennur, Trichy

Acute Myocardial Infarction in Infancy and Childhood - A reality

Dr. Prashanth Sha, MBBS., MS., DNB.,
Consultant Cardiologist

Dr. Lakshmi Prashant, MBBS., MD(AIIMS).,
Consultant Paediatrician
Kauvery Hospital, Chennai

An acute Myocardial Infarction (MI) is largely considered a clinical event that affects the elderly and is attributed to coronary artery disease.

Infants and children can also suffer what we call in common parlance, a "heart attack" and present with symptoms of myocardial ischemia (lack of oxygen supply) and heart failure just as adults do. A six month old distressed, malnourished baby girl was presented to us with the aforementioned features (poor feeding, rapid breathing, and sweating, pale skin). Her status was mistaken for common paediatric conditions such as reflux, colic and bronchiolitis. Our evaluation revealed cardiomegaly, rapid pulse, abnormal heart rhythm and ECG changes suggestive of a MI. The baby's clinical condition was pathognomonic of ALCAPA – anomalous origin of the left coronary artery from the pulmonary artery. She underwent prompt surgical correction for the same.

What is ALCAPA?

ALCAPA is a rare, serious congenital cardiac anomaly, where the left main coronary artery originates from the pulmonary artery instead of the aorta. In such cases the left main coronary carries deoxygenated blood (oxygen-poor blood) under low pressure to the heart muscle. This leads to myocardial ischemia. A phenomenon known as "coronary steal" further damages the heart in babies with ALCAPA. Low blood pressure in the pulmonary artery causes the blood from the abnormal left coronary artery to flow towards the pulmonary artery instead of the heart.

When and how does ALCAPA present?

ALCAPA is present prenatally because of the favourable fetal physiology that includes (1) equivalent pressures in the main pulmonary artery and aorta secondary to a patent ductus arteriosus, and (2) relatively similar oxygen concentrations due to parallel circulations. Shortly after birth, as the circulation becomes one in series, pulmonary artery pressure and resistance decrease, as does oxygen

content of pulmonary blood flow. This results in myocardial ischemia.

The symptoms usually present by 2 months of age and include the following:

- Crying or sweating during feeding
- Pale skin
- Poor feeding
- Rapid breathing
- Poor weight gain

On examination they have features of congestive heart failure, mitral regurgitation, diminished peripheral pulses and classical ECG changes (deep q waves, peaked t waves, ST segment changes). Confirmation of the anomaly may be obtained by means of 2D echocardiography or cardiac catheterization with angiography.

What is the treatment of ALCAPA?

Treatment of ALCAPA involves surgical reimplantation and direct transfer of the left coronary to the aortic root. The procedure is an open heart surgery performed on cardiopulmonary by-pass. Mechanical ventilation and inotropic support are typically required in the post-operative period in view of left ventricular dysfunction. Afterload reduction therapy is used to manage postoperative hypertension. Serial echocardiography is used to assess for improvement in left ventricular function and mitral regurgitation. Outpatient therapy with diuretics and afterload reduction is often used after discharge.

What is the outcome and prognosis?

If such babies do not have surgery, they most likely do not survive their first year. With timely intervention, they can expect a normal life and functionalities. With the right diagnosis, pre-surgical stabilization and team-oriented post-operative paediatric care, ALCAPA has shown to have an excellent outcome.

Dr. S.Aravindakumar, Cardiologist of Kauvery Heartcity, Trichy has been specialized in Clinical Cardiology and Interventional Cardiology. He has been conferred with internationally acclaimed fellowship namely, FACC (The Fellow of the American College of Cardiology) and FESC (Fellowship of the European Society of Cardiology) recently.

FACC is one of the most distinguished designations and the ultimate recognition of professional achievement based on outstanding credentials, achievements and community contributions to cardiovascular medicine.

FESC has been conferred to Dr. S.Aravindakumar, recognizing his notable years of experience and distinguished service in clinical, educational, investigational, organizational or professional aspects of Cardiology

Dr. A.Veni, Neurologist of Kauvery Hospital Cantonment was selected as the "Women Achiever", amongst five women of Trichy for their notable service and success in their own field by a prominent satellite television channel. She was interviewed and was aired on Women's Day, to instill the spirit of Womanhood. She was a state player in chess and a gold medalist in DM Neurology.

According to her, women are the repository of energy. The self confidence and the determination to achieve, charges them to face even the strongest battle with stride. When asked about her secret of success, she told that Yoga and Meditation are the main cause to curb the stress, and emphasizes women to accentuate their skills and constantly enhance it to make them feel more confident.

Anesthesia and Challenges

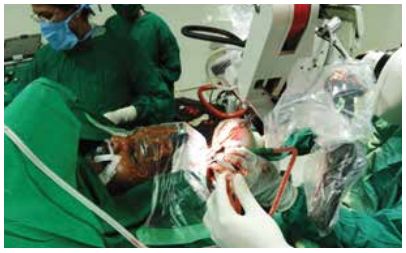
Dr. K. Senthil Kumar, MBBS., DA.,
Anesthesiologist
Kauvery Hospital, Trichy

Different Physiology

Right from the Neonates till Geriatric patients, Anesthesiologists face various challenges every day. Each individual vary physiologically, anatomically and pathologically, and hence anesthetic techniques are also modified accordingly. To start with, we know the physiology of a neonate is entirely different from adults, right from their oxygen binding capacity of haemoglobin till maturation and functioning of organ systems.

This Neonate is a preterm by birth and 17 days old, for posterior urethral valve fulguration. Considering the risk of apnea of prematurity, retinopathy of prematurity and other list of complications for general anaesthesia, we had provided subarachnoid block according to the guidelines. Neonate was comfortable throughout the procedure, both clinically and haemodynamically.

Do you want to be AWAKE during Brain surgery?



Yes, it is possible. A patient underwent "Awake Craniotomy," for glioma involving motor cortex. The patient was kept 'Awake' because monitoring was needed to locate the extent of tumor involvement during surgery. The patient was also asked to move his limbs. Anesthesia was provided to the regional block (Scalp block) along with wonder drugs like Dexmeditomidine, Midazolam, Fentanyl, Propofol in order to make the patient comfortable, bring down the anxiety to zero, and of course to achieve our primary goal of being PAIN FREE..

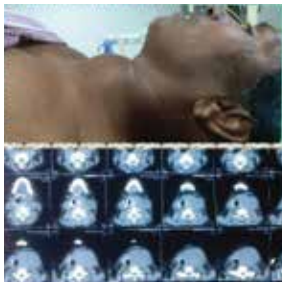
Breaking the 'TRIANGLE'

We know anesthesia includes a TRIANGLE of unconsciousness, involving analgesia, skeletal and muscle relaxation. In some surgeries like scoliosis, lipomyelomeningocele, spinal cord tumors....etc, we are forced to break our TRIANGLE by excluding muscle relaxation in order to provide neurophysiological monitoring intraoperatively. We achieve complete anesthesia favorable for surgeons with opioids, Inhalational anesthetics and sedative anesthetic agents appropriately.

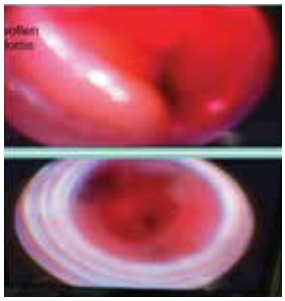
Airway Challenges

We come across huge number of challenging airways in our center very often. Thanks to Dr. Gustav Killian, a German laryngologist and founder of the bronchoscopy, who has initiated the first era of bronchoscopy in the year 1876. This later got revolutionized in 1967as fiber-optic bronchoscope.

Everything can become possible with fiber-optic bronchoscope. A patient was admitted with nil mouth opening as seen in this picture, later was able to secure endotracheal tube through "Awake fiber-optic intubation", along with airway block and premedication. The entire procedure was done with the extreme cooperation of the patient, which was thoroughly painless.

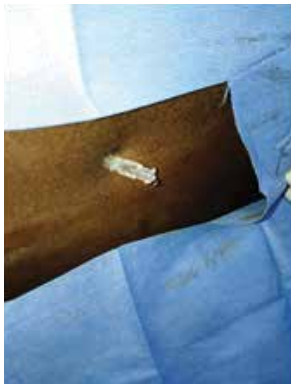


Another patient was admitted with huge retropharyngeal abscess extending till thoracic cavity, nearly compromising the airway. Even securing in pathological airway unlike previous case has now made possible with fiber-optic bronchoscopy.



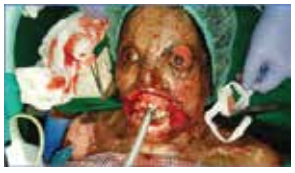
Neuraxial Challenges:

An obese patient with BMI of 42 presented with perianal abscess for incision and drainage. Considering airway and ventilation difficulties, basal alveolar atelectasis on ventilation and parasympathetic response during procedure, we proceeded with Subarachnoid block with 25G (9cm in length) Quincke needle. Our routine spinal needle was able to reach subarachnoid space only with further dimpling of skin after full insertion of 9cm needle.



A patient with RTA and chest injury with rib fracture as seen in the picture was able to breathe hassle-free. He was also able to cough to some extent and clear out secretions without any pain. As a step ahead, he also underwent surgery for closure of wound without general anesthesia, which is made possible with Throacic Epidural catheter used for Analgesia and Anaesthesia.

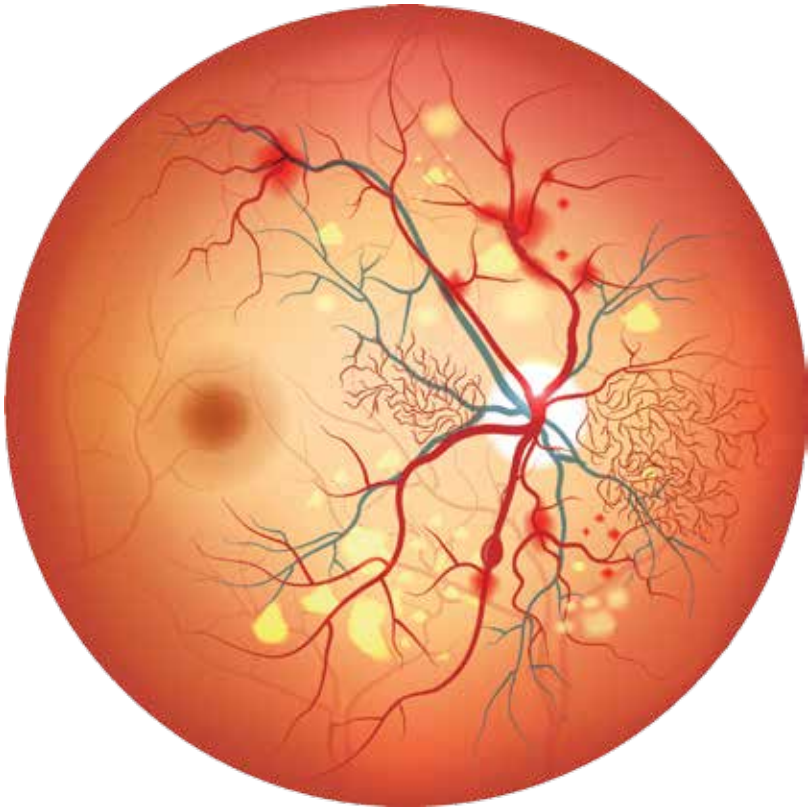
We pacify kids in Different Way Not only perioperatively, we face variety of challenges beyond OT's. For example, Imagine a situation of a Central venous Catheterisation for crying chubby infant with low platelets, on top of it, there was no peripheral IV cannula (all peripheral veins, gone). Ultrasound guidance and our way of pacifying child with sedative, through internal jugular vein just before insertion of guidewire or intramuscular anesthetic agent in sedative doses for kids with normal coagulation profile is a choice. This picture is central venous catherisation of a 22 days old neonate



Scary Ending!!

Even fibreoptic bronchoscopy guided intubation requires open nares or mouth opening of atleast 1 finger breath to pass the Faecal Occult Blood (FOB) and endotracheal tube.

In this case of burns contracture, where both entry points were blocked pathologically. Together with surgeons team work, contracture at mouth was released with tumescent infiltration to make way for our Endotracheal intubation.



Diabetic Retinopathy -An Overview

Dr. B.S. Anil Chandra, MS (Oph)
Sr. Consultant Ophthalmic Surgeon,
Kauvery Hospital, Chennai

Diabetes mellitus (DM) is a major cause of avoidable blindness in both developing and developed countries. Patients with Diabetic Retinopathy (DR) are 25 times more likely to become blind than non-diabetics.

Technological advances have improved the diagnostic accuracy of screening methods and access of the diabetic patients to the specialist care. In the last three decades, the treatment strategies have been revised to include, besides laser photocoagulation, early surgical interventions and pharmacotherapies.

What is Diabetic Retinopathy?

Diabetes causes weakening of the blood vessels in the body. The tiny, delicate retinal blood vessels are particularly susceptible. This weakening of retinal blood vessels, accompanied by structural changes in the retina, is called as diabetic retinopathy.

Pathophysiology:

The final metabolic pathway causing DR is unknown. There are several theories. Electrolytic imbalance caused by the high aldose reductase levels leads to cell death, especially retinal pericytes, which cause microaneurysm formation. Apart from this, thickening of the capillary basement membrane and increased deposition of extracellular matrix components contribute to the development of abnormal retinal hemodynamics.
In diffuse type of Diabetic Macular Edema (DME), breakdown of the inner blood-retinal barrier results in accumulation of extracellular fluid. Increased retinal leukostasis has been reported and it causes capillary occlusions and dropout, nonperfusion, endothelial cell damage and vascular leakage due to its less deformable nature.

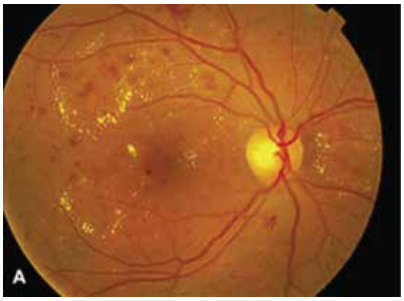
Currently, there has been a great interest in vasoproliferative factors, which induce neovascularization. It has been shown that retinal ischemia stimulates a pathologic neovascularization mediated by angiogenic factors, such as Vascular Endothelial Growth Factor (VEGF), which results in proliferative Diabetic retinopathy (PDR). VEGFs are released by retinal pigment epithelium, pericytes and endothelial cells of the retina.

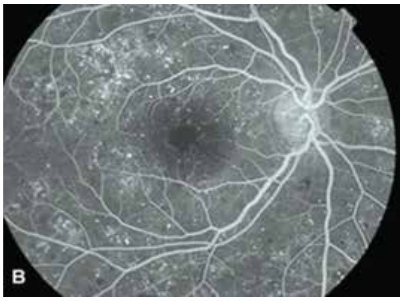
Types of diabetic retinopathy

There are two main categories of diabetic retinopathy:

• Non Proliferative Diabetic Retinopathy (when the blood vessels leak and then close)

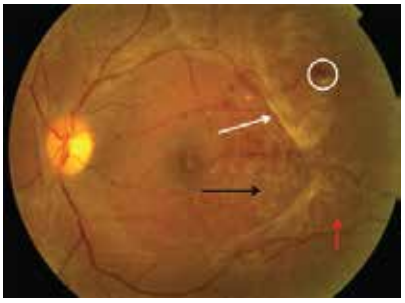
• Proliferative Diabetic Retinopathy (when new blood vessels grow or proliferate)





Non proliferative diabetic retinopathy (NPDR)

NPDR is also called background retinopathy as the retina may contain capillary leakage, capillary closure, or a combination of the two. Non proliferative diabetic retinopathy is the earlier stage of DR, and it is characterized by microaneurysms, retinal capillary non-perfusion and dot-blot or flame-shaped retinal hemorrhages. If blood glucose levels remain uncontrolled, NPDR may progress to severe NPDR, which is defined as the presence of four quadrants of microaneurysms, two quadrants of venous beading or one quadrant of Intraretinal Microvascular Abnormalities (IRMA). Severe NPDR carries a 15 percent chance of progressing to proliferative diabetic retinopathy within one year.



Proliferative Diabetic Retinopathy

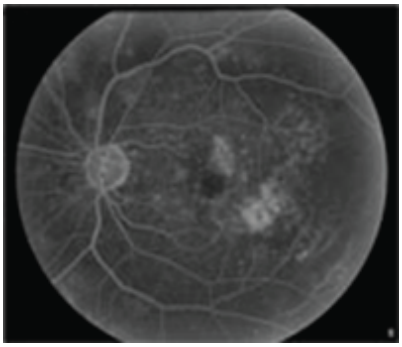
Proliferative Diabetic Retinopathy (PDR)

Progression to Proliferative Retinopathy is common in longstanding diabetes. Besides having non-proliferative retinopathy, there may be vessels growing on the retina, and the complications that stem from that condition. Proliferative diabetic retinopathy, a stage that is associated with severe vision loss, is characterized by the development of abnormal blood vessels on the optic disc, retina, iris and angle structures. Retinal ischemia resulting from progressive retinal capillary closure stimulates the release of angiogenic factors, such as vascular endothelial growth factor and placental growth factor. Such molecular mediators play an important role in promoting neovascularization and fibrous tissue proliferation. The new blood vessels that form are fragile and bleed easily when subject to vitreous traction, resulting in vitreous, pre retinal and retinal hemorrhages. When the fibrovascular proliferation regresses it leaves behind a fibrous tissue that is attached to both the retina and the posterior hyaloid. Such fibrous tissues allow traction to be transmitted to the retina during vitreous contraction, resulting in Tractional Retinal Detachment (TRD) and retinal break.

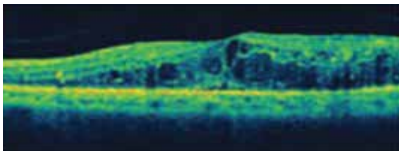
Diabetic Macular Edema

Diabetic Macular Edema is the main cause of vision loss in DR. DME can develop at any stage of DR and is caused by an increase in the permeability of the perifoveal capillaries leading to collection of fluid within the layers of the retina. This can be diagnosed by clinical examination and evaluated by Fundus Fluorescein Angiography (FFA) and Optical Coherence Tomography (OCT). The current treatment recommendation for treating DME is intravitreal injections either Anti VEGF or intravitreal steroids followed by laser if necessary

Diabetic macular edema



Diabetic macular edema



Optical coherence tomogram

Risk factors for diabetes (and therefore diabetic retinopathy) include:

- Obesity (more than 20% heavier than your ideal body weight)
- A family history of diabetes
- Hypertension (blood pressure of 140/90 or higher)
- Having a high density lipoprotein (HDL or "good cholesterol") reading of 35 mg/dL or lower
- Elevated triglyceride levels (250 mg/dL or higher)
- Having been diagnosed with gestational diabetes during a pregnancy
- Anemia
- Nephropathy

What are the symptoms of diabetic retinopathy?

Diabetic retinopathy often has no early warning signs. There is no pain, and vision may remain unaffected until the disease becomes severe. If leaking blood vessels cause swelling of the macula (called macular edema), central vision will become blurred, making it hard to see clearly when driving or reading. Vision may get better or worse during the day, depending on the degree of edema. If leaking blood vessels cause bleeding in the eye, symptoms will vary based on how much blood is involved. With relatively limited bleeding, the visual disturbance may appear as spots floating in your visual field. These spots may go away after a few hours. If bleeding is more severe, vision may suddenly become severely clouded. This can occur overnight during sleep. It may take months for the blood to clear from the eye, or it may not clear at all.

Eye evaluation in diabetic retinopathy

Diabetic retinopathy progresses rapidly without much warning. Hence periodic eye examination is the only way to monitor the progression of disease and tackle vision threatening problems before further damage occurs.

Recording patient's history

The onset of diabetic retinopathy is related to the duration of diabetes. Hence the ophthalmologist asks the patient about the duration and family history of diabetes. Any history of eye problems is also investigated.

Diagnosing diabetic retinopathy

Diagnostic tools such as a slit lamp examination, ultra sound and procedures like Fluorescein Angiography (FFA) and Optical Coherence Tomography(OCT) are used, in addition to an Ophthalmoscope (Direct & Indirect) to assess whether a patient has diabetic retinopathy or other eye problem.

Management of Diabetic retinopathy

Management of diabetic retinopathy depends on the stage and severity of the disease process. The management begins actually with tight glycemic control along with control of all associated co morbid conditions like HTN, Nephropathy, Anemia and Dyslipidemia. There is enough scientific evidence for us to convince the patient that unless his/her systemic risk factors come under control the treatment of diabetic retinopathy will not give optimum results. The role of the treating physician is so very important in screening, detection and timely referral to an ophthalmologist for appropriate treatment of diabetic retinopathy. Instead of simply telling the patient to get an eye examination, the physician should make the referral, write a letter to the ophthalmologist, and expect a report in return. Strict control of blood sugar levels reduces the incidence of diabetic retinopathy by about 35% for every 1% absolute decrements in hemoglobin A1c. Still, more than 80% of diabetic patients eventually develop some degree of retinopathy.

The various options available to the ophthalmologist today include:

- Laser photocoagulation
- Intravitreal injections of Anti VEGF and steroids
- Surgical procedure called pars plana Vitrectomy

Laser treatment and surgery can usually arrest the progression of retinopathy but usually cannot completely restore lost vision. If primary care physicians wait until the patient complains of blurred vision, it is usually too late—there is already permanent retinal injury, and the lost vision almost never can be completely restored. Hence the need for early detection of DR is such an important concern for both the physician as well the treating ophthalmologist.
Unfortunately, only half of patients with diabetes undergo an appropriate examination every year. Only by teamwork between primary care physician and ophthalmologist can blindness from diabetic retinopathy be reduced.
Vision-threatening diabetic retinopathy most commonly refers to Diabetic Macular Oedema (DMO) and/or Proliferative Diabetic Retinopathy (PDR). DMO typically presents gradually, with blurred vision, central distortion and difficulty reading. In contrast, early PDR is often initially asymptomatic and a high index of suspicion is required in patients with poorly controlled diabetes of significant duration.
There is now extensive evidence for the safety and superiority of intravitreal anti-vascular endothelial growth factor agents for the treatment of DMO and PDR, with the potential to improve vision in addition to stabilizing disease.

Key Points

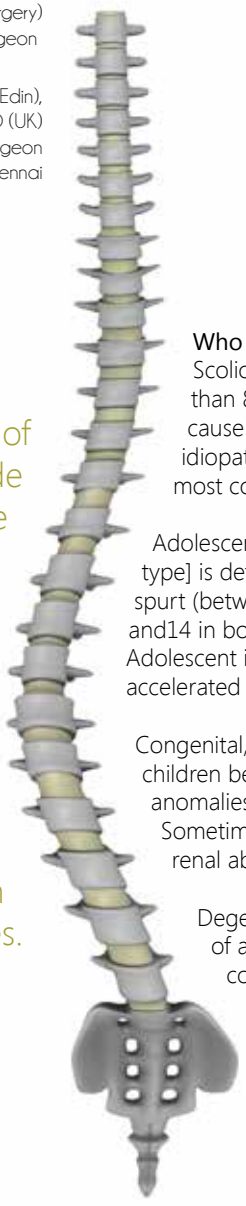
Almost all people with diabetes eventually develop some evidence of diabetic retinopathy. Regular screening is essential because diabetic retinopathy is common and has an effective treatment with laser photocoagulation and Intravitreal injections. Most people with diabetes eventually get some retinopathy. Early detection through regular dilated-pupil ophthalmoscopy or colour fundus photography allows timely laser treatment, which can prevent severe visual loss in over 90% of those at risk. Despite this outstanding medical benefit, only half our diabetic population is enrolled in a regular, effective screening program. Tight control of blood glucose and glycosylated haemoglobin levels over many years can greatly decrease the risk of eye problems or their progression to visual loss.

Adolescent Idiopathic Scoliosis

Dr. Vignesh Pushparaj, MBBS., D Ortho., FIPM.,
AO-FISS(Asia pacific)., FISS(Netherlands)
M.S(General Surgery)., M.Ch(Plastic & Reconstructive Surgery)
Spine & Orthopaedics Surgeon

Dr. Balamurali, MBBS, MRCS (Edin),
FRCS (Surgical Neurology), MD (UK)
Neurologist & Neurosurgeon
Kauvery Hospital, Chennai

Scoliosis is a condition of abnormal side-to-side spinal curves. On a spine X-ray, the person having scoliosis looks more like an "S" or "C" than a straight line. Scoliosis does not happen due to carrying heavy items, sports, poor posture, or minor leg length abnormalities.



Who develops scoliosis?

Scoliosis can occur in any age groups, in more than 80 percent of scoliosis cases, a specific cause is not known. Such cases are termed as idiopathic (undetermined cause), and they are most commonly found in adolescent girls.

Adolescent idiopathic scoliosis [Most common type] is detected during the adolescent growth spurt (between the ages of 10 and 14 in girls and 12 and14 in boys, pre-pubertal and pubertal period). Adolescent idiopathic scoliosis curve progression is accelerated during the time of puberty.

Congenital, Early onset, Syndromic scoliosis occur in children below 10 years will have spinal cord anomalies and vertebral body abnormalities. Sometimes these are associated with cardiac and renal abnormalities also.

Degenerative scoliosis occurs above 60 years of age due to degeneration over the spinal column.

How to identify Scoliosis?
(Remember to expose the spine/ back fully up to the waist level during examination)

- If they stand in relaxed position with their arms sides and we can see a curvature in the spine with shoulder blade asymmetry (one shoulder blade more prominent than the other), waistline asymmetry and trunk shift (body that tilts to one side).

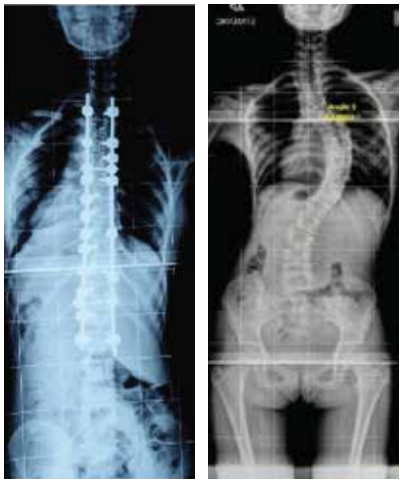
- If they bend forward at the waist, we can observe a rib prominence in the upper back and/or a flank or waist prominence in the lower back (Parents play a major role in identifying, mainly mothers)

What Investigations are needed?

- X-ray of the entire spine from the neck to the pelvis (back and side views) is needed to confirm the scoliosis.
- MRI Whole spine survey is to find out the associated spinal cord abnormalities.
- (Sometimes CT scan may be needed to plan for surgery if needed)What are the treatment options?
- Observation and bracing – We observe the scoliotic curves which are less than 25 to 30º and are still growing. And then we brace them to prevent further progression of the curve.
- Scoliosis surgical correction is often recommended for patients whose curves are greater than 45° and still growing, or the curves which are continuing to progress greater than 45° when growth stopped.

Case Example:
12 year old girl found to have deformity of back 1year ago. Deformity of the back was picked up by her mother. Though the

curve was above 50 degree, we surgically corrected it. She is leading a complete normal life after surgery.



Where to Treat?
Scoliosis is a rare condition. Surgery for scoliosis is complex and it requires an expert team and equipments. Neuromonitoring is required to perform these surgeries for safe correction. Kauvery hospital has got all the necessary expertise and equipments to perform these surgeries.

Stricture Urethra

Dr. S. Senthil Kumar, Ms., DNB., (Uro)
HOD & Senior consultant Urologist and Andrologist

Dr. N. Karthickeyan, M.S., MRCS(Edinburgh)., DNB., M.Ch (Urology)
Consultant Urologist
Kauvery Kidney Centre, Tennur, Trichy

Urethral strictures can result from inflammatory, ischemic or traumatic processes.

These processes lead to scar tissue formation; scar tissue contracts and reduces the calibre of the urethral lumen, causing resistance to the antegrade flow of urine. The most common presentation includes obstructive voiding symptoms, urinary retention, or urinary tract infections. Direct visual internal urethrotomy or urethroplasty is the recommended treatment for stricture urethra based on location, length and completeness of the stricture.

Case summary:
40 year old male presented to us with complaints of inability to pass urine for more than twenty four hours. He had been suffering from the difficulty in passing urine for the past two years. Clinically his bladder was distended and attempted urethral catheterisation had also failed. A diagnosis of stricture urethra was made and trocar SPC was done to relieve bladder outlet obstruction. Ascending Urethrogram (AUG) showed anterior urethral stricture with complete cut-off at the level of proximal bulbar urethra with minimal intravasation [Fig.1]. Patient was planned for Buccal Mucosal Graft (BMG) urethroplasty after three weeks urethral rest.

During surgery, nasal intubation was done to facilitate the harvesting of buccal graft. Patient in lithotomy position, midline perineal incision was performed. Circumferential mobilisation of bulbar urethra and pendulous urethra was done after invaginating the same through the perineal wound. Dorsal urethrotomy was made at the level of mid bulbar urethra and extended on either side until normal urethra. Buccal mucosa was harvested from both the cheeks and defatted to facilitate better uptake. BMG was then sutured to the urethral edges after fixing it dorsally with 4`0 vicryl [Fig.2].

Catheter was removed after 3 weeks and patient voided well without any residual urine. AUG was repeated after 1 month which showed good urethral lumen.

Discussion:
Buccal mucosa has become the preferred urethral substitute because of availability, ease of harvest, surgical handling characteristics, hairlessness, compatibility in wet environment, and graft survival. Buccal mucosal graft urethroplasty is the procedure of choice for long segment urethral strictures because of technical ease of performance, reliability and high success rate in the experienced hands.

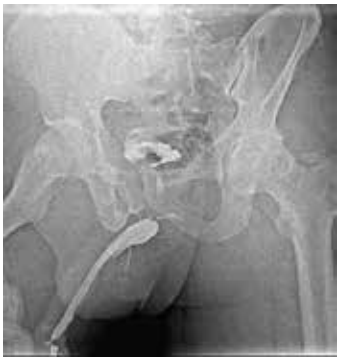


Fig.1-AUG Showing complete cutoff at proximal bulbar urethra with intravasation

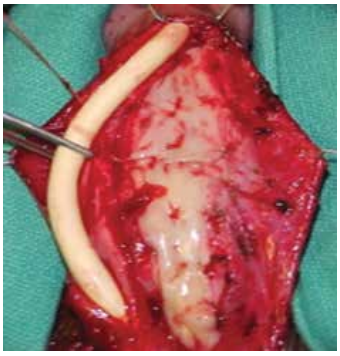


Fig.2-Buccal mucosa fixed dorsally to tunica

A Rare Organism Causing Septic Arthritis of Hip Joint

Dr. Chockalingam, MBBS., D.Ortho., FRCS(Surgery)., FRCS(Trauma & Ortho).,
Sr. consultant, Department of orthopedics.

Dr. Midhun Madhavan P. C, MBBS., DNB.,
PG(Orthopedic surgery)
Kauvery hospital, Trichy

Septic arthritis of hip joint is caused by Inoculation or invasion of joint space by microorganisms leading to arthritis.

It can be either direct inoculation, haematogenous spread or by contiguous infection from nearby tissue. The most common causes of septic arthritis of hip are Staphylococcus aureus, Streptococcus pneumoniae and Streptococcus Viridans. One rare cause of septic arthritis is melioidosis which is caused by Burkholderia pseudomallei. In septic arthritis of the hip, increased fluid pressure can lead to avascular necrosis of the head of femur, and septic arthritis of hip joint is a surgical emergency.

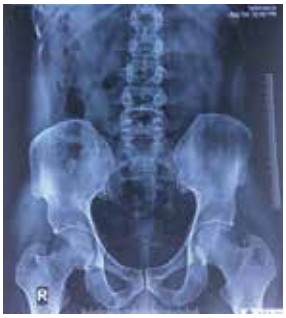
Case report

A 30 year old gentleman came to the orthopedic department with complaints of intermittent fever and right hip pain for one and a half months duration. The fever was intermittent with spikes more in the night and occasional chills. Associated with the fever, he developed right hip pain which started initially was dull. The pain was on and off pain, progressing in intensity, present more during the night, aggravated by right hip movements, and relieved by rest and medication. Later on the pain was present even during rest and the daily activities of the patient were severely limited due to the pain.

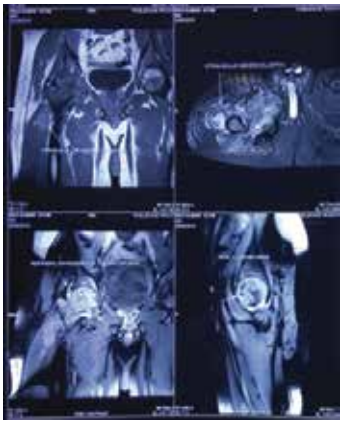
The patient is not a known diabetic or hypertensive, no history of pulmonary tuberculosis in the past, but an occasional alcoholic. Patient had a history of fever and jaundice five months back, for which he took treatment and was cured.

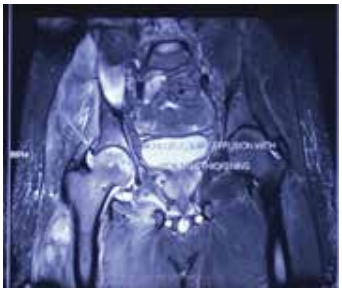
The patient consulted a local hospital for hip pain and arthroscopic synovial biopsy and core decompression was done from there. The surgical wound did not heal fully and had non foul-smelling scanty discharge from the wound site. Culture and sensitivity taken from a previous hospital showed growth of Morganella Morganii.

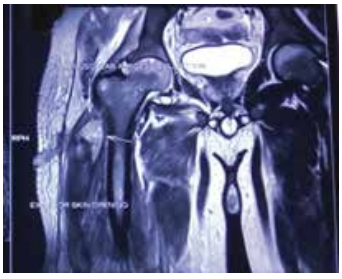
On arrival at our hospital, the patient was febrile and tachycardic, with right hip swelling and discharging sinus from one of the arthroscopic surgical portal site. Local warmth and tenderness was there, and right thigh also was swollen and tender. There was minimal right knee effusion. Range of movements of right hip where grossly limited. Distal pulses, sensations, toe and ankle movements where normal.



His blood investigations showed anemia and elevated ESR and C-reactive proteins. Xray showed degenerative changes in the head of femur and evidence of core decompression procedure. MRI was suggestive of septic arthritis of right hip, with abscess collection in joint space, head of femur and vastus lateralis muscle, which was in communication with the exterior skin through a sinus tract.







The patient was taken up for surgery and open washout of right hip joint and intraoperatively, the patient was noted to have severe destruction of the femoral head and articular cartilage and excision arthroplasty of the right hip with antibiotic impregnated cement bead (meropenem+ cefotaxime) application was done. Patient was put on intravenous antibiotics and analgesics and post operatively skin traction was applied. Synovial biopsy taken during the surgery showed non-specific synovitis and Histopathological examination of femoral head showed osteomyelitic changes.

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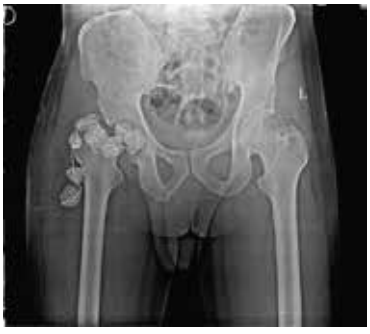
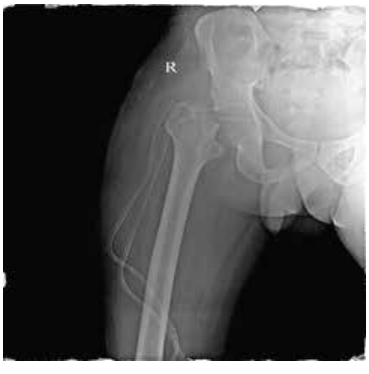
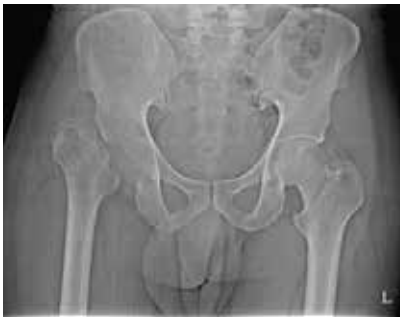




On the 1st Post op day, the patient developed breathing difficulty, persistent tachycardia, tachypnoea and drop in Oxygensaturation to 76%, and he had Persistent fever spikes. Post-op investigations showed low Hb- 7.6, elevated Liver Function Tests & ALP. In view of SIRS and early ARDS, the patient was intubated, ventilated, blood and blood products transfused, antibiotics escalated. Patient put on DVT prophylaxis. Pus culture and sensitivity was taken during the surgery, where it showed heavy growth of Burkholderia Pseudomallei. Antibiotics where changed appropriately with supportive care. With the above measures the patient improved, his CRP decreased serially. Liver function improved, and the patient was weaned from ventilator on POD6 and extubated on POD7 and shifted to ward on POD8. The patient was taken up for wound wash and removal of antibiotic impregnated cement beads on the 16th post op day. The patient continued to receive appropriate IV antibiotics, analgesics and supportive care and his general condition improved. Physiotherapy and mobilization was done, his surgical wounds healed and was discharged with advice to continue long term antibiotics.



The patient was readmitted after six months for right total hip replacement. Cementless total hip replacement was done for him. Now the patient is comfortable, ambulant with a painless hip.

Melioidosis and its orthopedic manifestations

Melioidosis is caused by gram negative bacilli–Burkholderia pseudomallei/mallei, found in moist soil and water. It is endemic in Southeast Asia and Australia. The usual mode of infection is either by inoculation, ingestion or inhalation. People with diabetes, chronic alcoholics, immuno suppressed individuals ....etc are found to be affected more commonly.

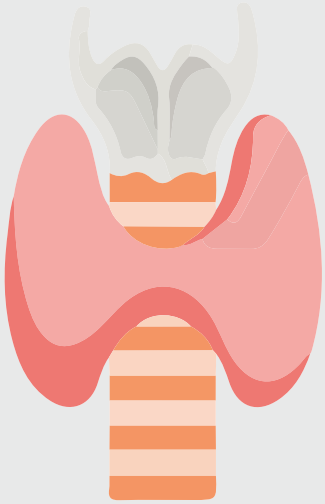
Melioidosis has a broad spectrum of clinical manifestations and may present as pneumonia, fever, myalgia, or rare but well recognized orthopedic manifestations as septic arthritis. A study published in the Malaysian journal of orthopedics in 2009 showed that abscesses where the main cause of orthopedic referral in melioidosis cases accounting for up to 63.6% followed by septic arthritis and cellulitis. Melioidosis can also lead to severe septicemia and may prove to be life threatening.

Conclusion

Melioidosis is a pyogenic infection caused by the gram negative bacilli Burkholderia pseudomallei, with a wide variety of clinical manifestations and high mortality. It may present as a simple pneumonia, septic arthritis, or even severe sepsis, so the diagnosis should be made with a high index of clinical suspicion and prompt measures should be taken to ensure the patient's wellbeing.

Papillary Carcinoma of Thyroid

Dr. Anish, MS., MRCH., MCh.,
Consultant Surgical Oncologist
Kauvery Cancer Centre, Tennur, Trichy



Thyroid cancers are one of the commonest head and neck cancers, representing around 5% of all cancers in women and 2% in men. Around 5-10 % of all thyroid nodules on evaluation are found to be malignant. Incidence of thyroid malignancy is increasing steadily, because of more number of incidental nodules detected by imaging and further evaluation.

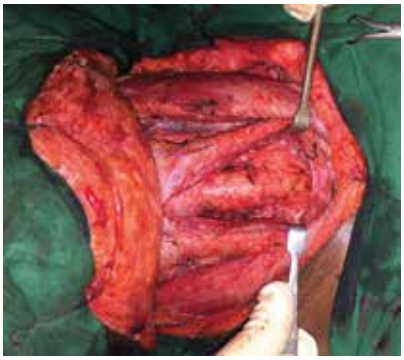
Case report

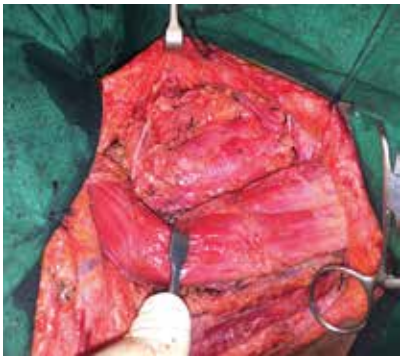
Mrs. Durga Devi, a 27 yrs old lady with no major comorbids had come with swelling on both the sides of the neck. She noticed this around six months back, and found that it was gradually increasing in its size. On examination she was found to have bilateral large level 2 neck nodal mass around 4*3 cms in right side and 3*3 cms in left side, along with other small multiple level 4 and 5 nodes on both sides. A solitary nodule of size 2*2 cms was palpable in right lobe of thyroid with rest of the gland appearing normal. FNAC from the thyroid nodule and neck node was suggestive of papillary carcinoma of thyroid and her CT neck showed large bilateral neck nodal mass with other smaller nodes, IJV and carotids were free, no mediastinal nodes or lung metastasis seen.

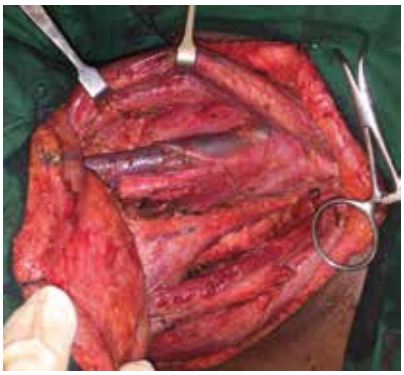
She underwent total thyroidectomy preserving both sides recurrent laryngeal and both parathyroid glands with central compartment neck dissection (level 6) and bilateral modified radical neck dissection type III removing level 2, 3, 4 and 5 nodes after preserving spinal accessory nerve, internal jugular vein and sternocleidomastoid muscle on both the sides. Her postoperative period was uneventful, without any hypocalcaemia or voice change. Her drains were removed on sixth day of the post-op and she was discharged after that. Her final histopathology showed unifocal 1.5 *1.5 cm classical papillary carcinoma of right lobe of thyroid without any capsular invasion or lymphovascular invasion. 7 out of the 22 nodes removed were positive for malignancy. Her final pathological staging was pT1N1bMo (Stage 1), in view of her intermediate risk category, she was planned for thyroxine withdrawal for 4 weeks and then for radioiodine ablation therapy.

Discussion

Papillary carcinoma of thyroid is the commonest histological type representing 80-90% of thyroid cancers. They are slow growing tumors which predominantly spread to lymph nodes in the neck, initially to the central compartment and then to the lateral compartment. Surgical removal by total thyroidectomy is the preferred method in all patients diagnosed with papillary carcinoma thyroid except in tumors less than 1 cm with no high risk features where it can be safely observed. Prophylactic central compartment neck dissection is advised in T3/T4 tumors



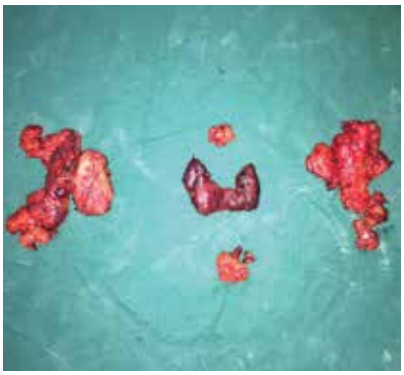




and all other patients' central compartment or lateral compartment neck dissections are done only when the nodes are involved by tumor.Post operatively patients are risk stratified based on the histopathology and serum thyroglobulin levels into low risk, intermediate and high risk groups. Except for patients in low-risk groups, all other patients have to receive radioiodine ablation after 4-6weeks of thyroxine withdrawal period or receive rTSH before ablation. Post ablation, the patient has to receive suppressive dose of thyroxine to maintain the TSH levels below 0.1u/ml and kept on follow up.

Conclusion

Papillary carcinoma of thyroid is one of those cancers with very good survival rate, even in the advanced stages. The key to a successful treatment is aggressive surgical resection of the tumor, not leaving behind any residual tumor or the thyroid tissue even at the extent of resecting the trachea or the esophagus and the nodal tissues even in locally advanced tumors to achieve the complete removal. With a good surgical resection along with post-operative radioiodine ablation therapy even in metastatic tumors especially in patients below 55 years of age good overall survival can be achieved.



We extend a hearty welcome to our Kauvery family

Dr. B. Anish, MS., MRCH., MCh.,
Surgical Oncologist
Kauvery Cancer Centre, Tennur, Trichy

Dr. P. Baskar Rao, MD., DM.,
Medical and Radiation Oncologist
Kauvery Cancer Centre, Tennur, Trichy

Awareness on Vocal Hygiene

Dr. Sundhari, MBBS., DNB(ENT)., MNAMS.
Consultant-ENT Head and Neck Surgery
Kauvery Hospital, Chennai

The impact of voice disorders in professions have a negative effect on the quality of life of those who suffer from voice problems negatively affects on job performance. There is lack of awareness of voice disorders as a work-related disease in most common professionals but voice disorders have been accepted as occupational disorders in some other countries and about health care and occupational safety for professional voice users are poor.

Many people use their voices for their work. Singers, teachers, doctors, lawyers, nurses, sales people, and public speakers (politicians) are among those who make great demands on their voices. Recent increase in attention for the speakers in media networking, news readers and sports anchors, radio DJs, puts them at risk for developing voice problems.

How do you know when your voice is not healthy?
If you answer "yes" to any of the following questions, you may have a voice problem:

- Has your voice become hoarse or raspy?
- Have you lost your ability to hit some high notes when singing?
- Does your voice suddenly sound deeper?
- Does your throat often feel raw, achy, or strained?
- Has it become an effort to talk?
- Do you find yourself repeatedly clearing your throat?

Voice disorders can be caused by many different factors, like physical ailments and diseases. If any disorder in the larynx(voice box) it will shows the symptoms like hoarseness of voice, limitations in pitch and loudness, frequent throat clearance, shortness of breath or increased vocal effort may be a sign of any number of disorders of the larynx.

The hoarseness can be due to:
• Vocal misuse and overuse
In the incorrect phonation of an individual could have a breathy, strained, husky, or hoarse voice, their resonation will be a hyper-nasality or hypo-nasality.
• Singing or speaking with incorrect technique
• Stress
• Emotions
• Any inflammation due to:
• Irritation, such as smoke
• Drying of the vocal cords
• Infection
• Acid reflux coming up from the stomach
• Allergies
• Some medications
• Structural changes in the vocal cords such as:
• The early stages of nodules on the vocal cords
• A cyst
• A polyp
• A bleed into the vocal cord
• Nerve damage (very rare) associated with stroke, post thyroidectomised surgery, post hospitalization in Intensive medical care or any skull base tumours

Tips to prevent voice problems
Stay hydrated:
• Drink plenty of water. Six to eight glasses a day is recommended.

• Limit your intake of drinks that contain alcohol or caffeine, which can cause the body to lose water and make the vocal folds and larynx dry. Alcohol also irritates the mucous membranes that line the throat.

• Use a humidifier or steamer for inhalation, especially in winter or in dry climates, dry cough and irritation.

• Avoid or limit use of medications like common cold and allergy medications. If you have voice problems, ask your doctor which medications would be safest for you to use.

Maintain a healthy lifestyle and diet:
• Don't smoke, it irritates the vocal folds. Also, cancer of the vocal folds is seen most often in individuals who smoke.

• Avoid eating spicy, sour and fried foods, avoid carbonated drinks. Spicy foods can cause stomach acid to move into the throat or oesophagus, causing heartburn or GERD.

• Include plenty of whole grains, fruits, and vegetables in your diet. These foods contain vitamins A, E, and C. They also help keep the mucus membranes that line the throat healthy.

• Get enough rest. Physical fatigue has a negative effect on voice.

Use your voice wisely:
• Try not to overuse your voice. Avoid speaking or singing when your voice is hoarse or tired.

• Absolute voice rest when you are sick. Illness puts extra stress on your voice.

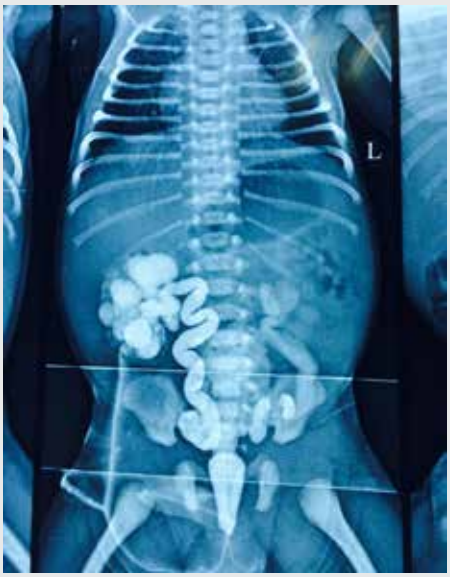
• Avoid using the extremes of your vocal range, such as screaming or whispering. Talking too loudly and too softly can both stress your voice.

• Practice good breathing techniques when singing or talking. Support your voice with deep breaths from the chest, and don't rely on your throat alone. Singers and speakers are often taught exercises that improve this kind of breath control.

• Avoid cradling the phone when talking. Cradling the phone between the head and shoulder for extended periods of time can cause muscle tension in the neck.

• Avoid talking in noisy places. Trying to talk above noise causes strain on the voice.

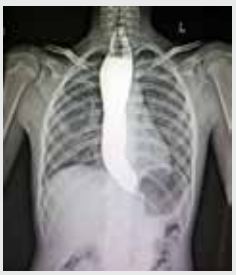
Consider voice therapy. A speech-language pathologist who is experienced in treating voice problems can teach you how to use your voice in a healthy way.



QUIZ COMPETITION

Quiz Question
1. What is this investigation?
2. What is the diagnostics?
3. What is the best time to treat this condition?
4. What are all the complications of this condition?

Send your answers to capsule@kauveryhospital.com
or WhatsApp to +91 96887 25479



Previous Issue's Question & Answer
Question:
16 year old male presented with history of dysphagia and chest discomfort.
What is the investigation?
What is the diagnosis?
Answer
Barium Swallow Study, Achalasia Cardia
Winner
Dr.S.Anandan, Nagapattinam

Renal Update 2017

Kauvery Kidney centre of Kauvery Hospital, Trichy to commemorate the World Kidney Day, observed on March 9th worldwide, has organized a Urology CME titled "Renal Update -2017", focusing on obesity and renal disease on 19th of March at Sangam Hotel around 9.30 Am.

The theme for this year is Kidney Disease & Obesity. This CME has focused on obesity related renal disease with four exciting topics and a quiz. Dr.S.Kandaswamy, Consultant Nephrologist, and Dr.S.Senthil Kumar, Sr.Consultant Urologist, Dr.T.Rajarajan, Consultant Nephrologist were the prominent speakers of the CME.

Dr.Ve.Senthilvel Murugan, Sr.Consultant Radiologist of Kauvery hospital rendered the welcome address. Quiz was organized by Dr.Balaji, Consultant Nephrologist and Dr.N.Karthikeyan, Consultant Urologist. Around 150 delegates had participated in the workshop encompassing various Surgeons across Tamil Nadu. The Program paved a platform for the clinicians to develop skills and share their knowledge which would eventually benefit the patients

Pattimandram

Kauvery Kidney centre of Kauvery Hospital, Trichy to commemorate the World Kidney Day, observed on March 9th worldwide, has organized a series of events like water bottle campaigns, one week urology camp at Thennur Kauvery Hospital, for the public from 6th to 10th March 2017. Radio Talk by Dr.N.Karthickeyan, Urologist, and Dr.T.Rajarajan Nephrologist of Kauvery Hospital, on raising awareness on kidneys was aired in the All India Radio. Radio Jingles were aired on a leading Fm channel, emphasizing the importance of maintaining proper kidney health. A Urology CME titled "Renal Update -2017", focusing on obesity and renal disease will also be conducted on 19th of March at Trichy.

A Talk Show (Pattimandram) was conducted on 9th March 2017 at Devar Hall around 6.00 PM, by renowned orator of international repute, Mr.Suki Sivam, on the topic "Who has the most concern in their health? Men! Or Women!" He displayed a splendid treat for the audience which was interactive, entertaining and also very educative.

His scintillating performance had kept the audience of 500, completely spellbound throughout the program. He emphasized the need to adopt positivity in lifestyle and being cautions at the same time to prevent enormous diseases. As human body is temple where God resides, and the best service we can do to our body is to keep it hale and healthy. He also presented numerous facts and data pertaining to myths involved in the organ transplant.

Along with the pattimandram, there was an interactive session of the public with the Doctors of Kauvery Hospital on their qualms and doubts on various topics pertaining to general health, organ donation, and life after surgeries. Organ donors were specially honored in the occasion, for their humanity to help sustain a life. Organ donation is a gift from the medical science, which ensures an organ recipient to lead a normal walk of life. One human can save more than ten needy recipients.

Inauguration of Chennai, Anna Nagar Branch

The Kauvery medical center at Anna Nagar was inaugurated on 15th of March 2017, by Ms.Suhasini Mani Rathnam. During the inauguration, Ms.Suhasini Mani Rathnam spoke extensively about how neighborhood clinics add value to healthcare, by being easily accessible and how they help in identifying serious illnesses in patient groups who don't immediately visit hospitals for ailments. The out-patient unit of Kauvery medical center at Anna-Nagar is a state-of-the-art facility designed to diagnose and treat illnesses before they turn into health crisis. The clinic boasts of facilities like a dedicated pharmacy, Ultra-sound scan, Color Doppler, Echocardiogram, Digital X-Ray, Digital ECG, State-of-the-art laboratory and Health check up.

With friendly family-centric doctors and staff, Kauvery medical center aims to bring quality healthcare to Anna-Nagar and more localities in Chennai in the near future. With various specialties like General medicine, Diabetology, Geriatric medicine, Cardiology, Orthopedics, Vascular Surgery, Nephrology & Urology, Gastroenterology, Mother & Child Health, ENT, Plastic & Reconstructive Surgery, Kauvery Medical Centres in Anna Nagar and locations across Chennai will be premier clinics catering to multiple neighborhoods across the city.

5S Kaizen Award

Kauvery Hospital is renowned for its excellent care and the commitment towards swift healing, bringing unmatched experience which are on par with the global standards. The notable service towards humanity has been well received among the people of Trichy, which is the main attribute for its soaring success and elevated growth which extended in more than four cities and six units within the time span of 15 years.

ABK-AOTS DOSOKAI, a registered society to liaison between Japan and India across diverse spheres, has conferred two awards for Kauvery hospital, on January 23rd at Chennai for 5S Platinum Award, and another award at Delhi on February 26 for Quality Control. Platinum Medal and Certification for the Best Practices in 5S, in Large and Medium Scale Industries is yet another feather in its cap, as Kauvery Hospital is the only hospital to win this award this year, out of 50 companies from the manufacturing and service sector. Clean, safe and clutter-free environment, a process-driven approach to healthcare and the reduction of costs through reduction of wasteful expenses and processes are the prime reasons to bestow this award upon Kauvery Hospital.

Dr. S. Manivanan, Joint Managing Director, Kauvery Hospital, expressed his delight on the occasion, "It is widely acknowledged that the 5S system boosts efficiency, reduces waste and improves quality of products and services across all industries, and healthcare is no exception. Healthcare in India needs to adopt this system on a war footing so that hospitals both public and private will soon scale up to international standards. I am also proud to say that the 5S Platinum Award lifts Kauvery Hospital into a select club of hospitals that have managed to acquire this status. This award also establishes us as a world-class hospital that provides quality and performance at par with global standards."

HEALTHY *Chocolate Banana* PANCAKES!

Ingredients

Makes 18 servings, 32 calories per serving😊
Although keep in mind, each pancake is pretty small (around 3 inches)

¾ cup of Flour
¾ cup of Skim/Non-fat Milk
2 Egg whites
2 Tbsp of Cocoa
(I used Meijers hot cocoa mix which is 36 cals per tbsp!)
2 tbsp of baking powder
1 dash of Salt
½ medium Banana

Nutritional Information per 18 servings:

Calories	: 570
Total Fat	: 2.9 g
Sat Fat	: 1.8 g
Cholesterol	: 24mg
Sodium	: 469mg
Total Carb	: 110.6g
Dietary Fiber	: 4.6g
Protein	: 24.6g

Directions:

1. In a large bowl, mix the flour, egg whites, baking powder, milk, salt and cocoa until smooth
2. Slice the 1/2 a banana into small slices
3. Heat the griddle or frying pan on low heat. (If you decide to use oil, add those calories, I use cooking spray!)
4. Pour or scoop the batter onto the griddle or pan, use approximately a tablespoon of batter for each pancake.
5. Add banana slices onto the pancakes as they cook.
6. Brown on both sides and serve hot.

Enjoy!

KMC INSTITUTE OF PARAMEDICAL SCIENCES

(Affiliated to The Tamilnadu Dr. M.G.R. Medical University, Chennai)

kauvery hospital

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- B.Sc Radiology & Imaging Technology
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ADMISSIONS OPEN FOR

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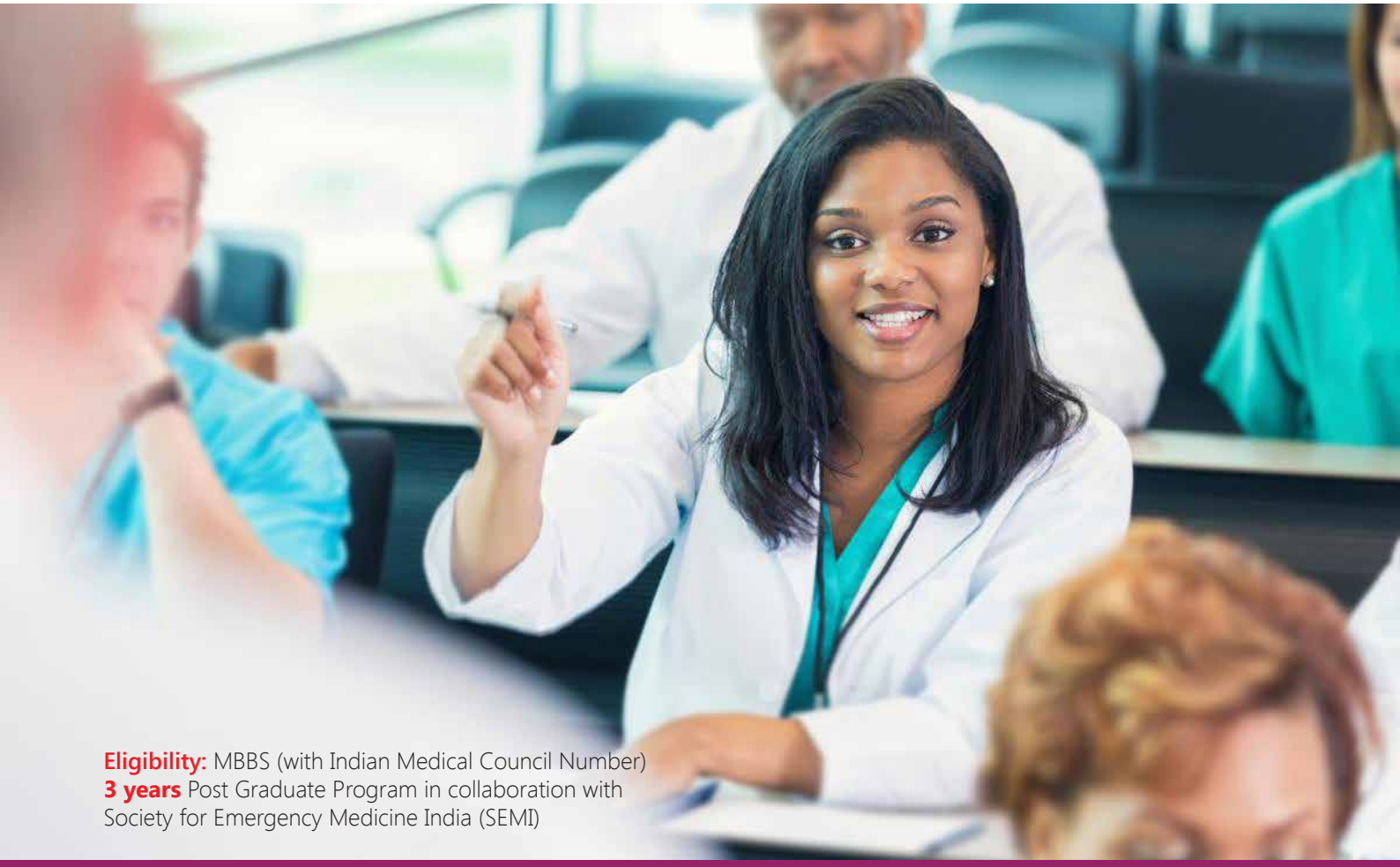
kauvery hospital



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- Three year course

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- Emergency department
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- Operation Theaters

Requirements:	CV with originals for verification	**Walk in Interview:**	**20th April 2017**
Contact Person:	Mrs.Kirthikha – 9677580597	**Time:**	12.00 Noon
Email id:	mem@kauveryhospital.com		

Kauvery Hospital, No.6 , Royal Road, Cantonment, Trichy– 620 001.

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kauvery
cancer care
centre
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hospital

Cancer doesn't kill
But Ignorance will...

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No.1, K.C. Road, Tennur, Trichy-17. Ph: +91-431-40 22 555 W:www.kauveryhospital.com E:info@kauveryhospital.com