KAUVERY MEDICAL JOURNAL

NEWSLETTER

FINAL ISSUE - 2018

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Hon. President

Dr.S. Sivaram Kannan
Hon. Secretary

Dr. Iyappan Ponnuswamy
Hon. Treasurer

Dr. R. Balasubramaniyam
Editor

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Secretary's Message

New year Wishes and greetings from IMA Chennai Kauvery Alwarpet Branch.

On behalf of our branch i would like to wish our new state president Dr. Kanagasabapathi a successful tenure and assure the fullest cooperation from our Branch.

We also take pleasure in wishing the other new state office bearers a successful tenure.

The monthly Academic meetings of our branch were held on 5th October 2018 and 2nd November 2018 at Kauvery Hospital, Chennai and were well attended.

I'm happy to inform that our branch got 5 awards in the IMA State conference held at Kumbakonam, including the best newsletter award, the credit goes to our Editor and his team.

We request all our members to join the IMA PPLSS and FSS schemes.

Long Live IMA.

Yours in IMA service,

Dr. S. Sivaram Kannan

Editor's Message

Dear friends,

Best wishes for a Happy & Healthy New Year.

I am happy to share that our IMA newsletter has been awarded the best newsletter by the IMA Tamil Nadu. I am thankful to all our consultants and post graduates for continuously contributing to our newsletter.

We have a collection of interesting cases in this edition also.

Looking for your suggestions and feedback.

With best regards,

Dr. R. Balasubramaniyam

A rare opportunistic infection in renal transplant recipient

Dr. R. Balasubramaniyam
Sr. Consultant Nephrologist

Dr. Balaji Kirushnan
Consultant Nephrologist

Mr A aged 44 years is a known hypertensive from December 2014. There was no history of diabetes or heart conditions. He has history of acute on chronic calcific pancreatitis probably ethanol related since 2013. He was detected to have severe renal failure in 2014 and hemodialysis was initiated on December 2014. Live related renal transplant was planned with his sister as his donor. Cross match was negative(<10%) with haplomatch on tissue typing. The donor and recipient evaluation was normal and the Kidney transplant surgery was done on 25/09/2015.

He achieved normal graft function on day 5 after transplant. He was discharged with triple immunosuppression with steroids, tacrolimus and mycophenolate as maintenance immunosuppression. He had normal graft function and was on regular once a month follow up. He developed new onset Diabetes Mellitus in 2016. He had mild graft dysfunction with creatinine of 1.6mg%. He underwent transplant kidney biopsy which showed features of combined cell mediated and antibody mediated rejection. He responded partially to anti rejection treatment and had persistent graft dysfunction (creatinine maintained around 2.5mg%) subsequently.

He was admitted on 7.11.2018 with complaints of cough with expectoration from 5 days. He had history of significant weight loss from the last 2 months. Chest X ray showed multiple inhomogeneous opacities involving both the lung fields. CT chest showed multiple air filled cavities with nodules involving both lungs with pleural effusions and lymphadenopathy. Sputum examination showed weakly gram positive, 5% acid fast stain positive filamentous organisms suggestive of Nocardia. He was started on Tab Cotrimoxazole 160/800mg 2 tablets twice a day after reduction for present GFR and Tab Minocycline 50mg twice a day.

Discussion

Nocardia are ubiquitous soil saprophytes. The route of infection can be either by inhalation or by direct cutaneous inoculation. Most human infections (90%) are caused by inhalation of members of the N. asteroides group, which includes three subgroups:

1. Nocardia asteroides complex (which contains multiple subspecies),
2. Nocardia farcinica and
3. Nocardia nova.

N. brasiliensis, N. otitidiscaviarum, and N. transvalensis represent the remaining 10% of infections. Of these, N. brasiliensis is the most important in tropical areas; it is most often seen as a cutaneous infection that can affect individuals with normal immune function (although 70% of cases of N. brasiliensis are seen in immuno compromised individuals).

In general, nocardiosis is a disease that affects primarily the cell- or humorally-immuno compromised population: transplant recipients, patients on high-dose steroids, and patients with cancer, AIDS, or other leukocyte deficiencies. Nocardia may also colonize the respiratory tract of immuno competent individuals with compromised pulmonary function, such as those with asthma or chronic obstructive pulmonary disease (COPD). Once established, nocardial pneumonia will usually disseminate hematologically, with kidney, skin, GI tract, and brain being common targets; brain abscess (33% of cases) is the most common presentation.

Nocardia species are classically gram-positive, strictly aerobic, filamentous, branching, weakly acid-fast bacilli. They may be isolated on routine bacterial, fungal, and mycobacterial media. Colonies may appear within 4 days, but may require up to 2-4 weeks of culture. If nocardiosis is suspected clinically, the bacteriology laboratory should be informed and cultures should be kept longer than usual. Nocardia can also be difficult to isolate by culture because of overgrowth by faster-growing nonpathogenic colonizers that may mask its presence.

Nocardia colonies may be smooth and moist, or have a "mold-like" verrucous grey-white waxy or powdery appearance from aerial hyphae.

Sulfonamides, alone or in combination with trimethoprim, are the most effective first line agents against nocardiosis, and should be continued for several months to prevent a relapse, especially in immuno compromised patients. Recommended second-line agents (minocycline, imipenem, or an aminoglycoside in combination with a third-generation cephalosporin) are indicated in cases of intolerance to sulfonamides. Supplemental agents (amikacin, ceftriaxone, cefotaxime or imipenen) might help in cases of widely disseminated nocardiosis

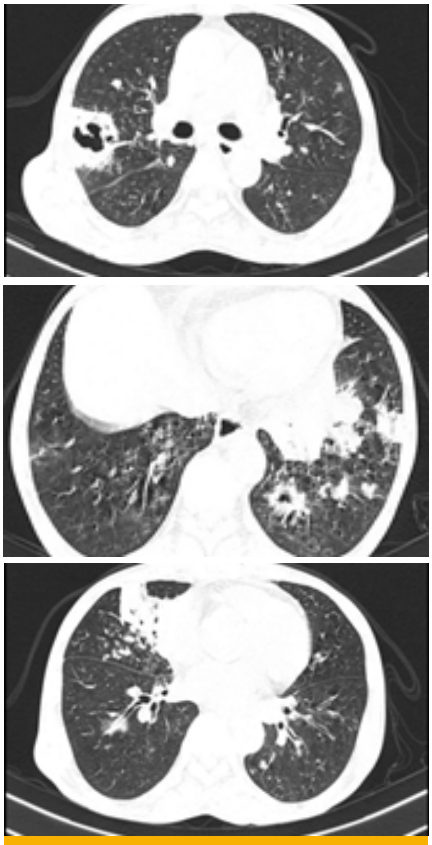

Fig 1 – CT Chest showing cavitatory pneumonia

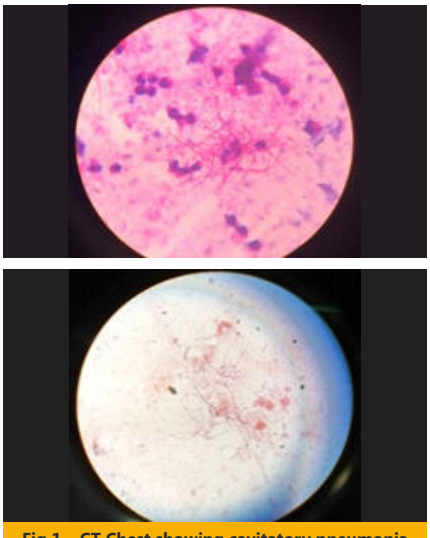

Fig 1 – CT Chest showing cavitatory pneumonia

Timely Resuscitation- A Matter Of Life And Death

Article By

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Resident, Anaesthesiology

Dr. Sridhar N
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Cardiopulmonary resuscitation (CPR) is a lifesaving medical procedure which is administered to someone who is in cardio pulmonary arrest. Cardiopulmonary arrest means that a person's heart and breathing has stopped. When this happens it is important to immediately recognize this and start CPR.It helps to pump blood around the person's body when their heart cannot. CPR increases a person's chance of survival when they go into sudden cardiac arrest- when the heart malfunctions and stops beating unexpectedly.

We would like to share our experience with three patients who were promptly resuscitated in the emergency department after being brought in a critical state and suffered a cardiopulmonary arrest.

Scenario 1: A 22 year old female, just delivered a baby girl 4 days ago in an outside hospital, had breathing difficulty followed by sudden collapse. By the time she reached the emergency department, her BP was not recordable, and had no pulse which implies- a cardiac arrest. Immediate cardio-pulmonary resuscitation was started. After uninterrupted resuscitation for 20 minutes, we managed to get a pulse which implies the heart has started to work again. She was shifted to the critical care unit for further management. She was diagnosed with hypertensive heart failure as a consequence of pre-eclampsia (pregnancy induced hypertension). She required ventilatory support for the next 36 hours, after which she was hemodynamically stable and neurologically fit to be weaned off ventilator. After a week of hospitalization and appropriate treatment, she walked back home from the hospital in good health.

Scenario 2: A 75 year old male, diagnosed with diabetes, hypertension and coronary artery disease, had chest pain at home and went to a nearby cardiologist.In view of ECG changes, he was referred to our hospital emergency department for further management. On arrival to our ER, he had no pulse which implies - a cardiac arrest. His ECG showed ventricular tachycardia (an arrhythmia where the heart fires rapidly and irregularly). Immediate cardio-pulmonary resuscitation was initiated with administration of cardio version (electrical shock to the heart). After more than 20 minutes of continuous resuscitation, we managed to get a normal heart rhythm. Then he was shifted to the critical care unit for stabilization and was planned for emergency coronary angiography. He then underwent coronary angiography, which showed triple vessel disease (block in the blood vessels to heart).He persistently continued to develop ventricular tachycardia during the procedure requiring multiple shocks to the heart. He was shifted to the critical care unit, requiring ventilatory support and multiple medications. After more than 15 times of shocks and continuous infusion of medicines, we could sustain a normal heart rhythm. He was neurologically fit to be weaned off ventilator after 24 hours. He underwent coronary angioplasty and stenting and walked back home from the hospital.

Scenario 3:

A 70 year old female, known case of hypertension, moderate heart dysfunction with heart block and asthma had breathing difficulty and intermittent chest pain radiating to her left upper limb and was brought to our emergency department for treatment. On arrival to ER, she had no pulse which implies – a cardiac arrest. Her ECG showed ventricular fibrillation (an arrhythmia where the heart fires rapidly and irregularly). Immediate cardio-pulmonary resuscitation was initiated requiring cardio version (electrical shock to the heart). After 10 minutes of resuscitation, we managed to get a normal heart rhythm, and she was shifted to critical care unit for further management. She then underwent coronary angiogram which showed normal blood supply to the heart. She had to undergo implantation of automated implantable cardioverter - defibrillator to prevent any further arrhythmias and sudden cardiac death. She was neurologically fit to be weaned off ventilatory support after 48 hours. She was hemodynamically fit at the time of discharge and walked back home from the hospital.

This article is to create awareness among common public about analyzing the situation and seeking immediate medical attention in any nearby healthcare center before it's too late. The above mentioned patients were brought in a near death statewith no pulse that implies a cardiopulmonary arrest. Luckily for them, the early recognition of their symptoms,prompt arrival to the hospital, timely resuscitation,quick diagnosis of a treatable cause andefficient team effort of the emergency physicians, anesthesiologists, intensive care physicians, cardiologists and the nursing staffs has added bonus years to their lives and all of them walked back home.

EVERYONE DESERVES A SECOND CHANCE AND TIMELY RESUSCITATION CAN MAKE THIS POSSIBLE.

Cardiopulmonary Resuscitation (CPR) is a very important skill that every person should know how to perform. You never know when you will need to provide this to another person.

Department of Anaesthesiology and Intensive care

A Case Report of Scleroderma

Article By

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DNB Resident

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Rheumatologist

Introduction

Scleroderma is an uncommon connective tissue disorder characterized by multisystem involvement and a chronic progressive course resulting in significant morbidity and mortality. The prevalence rate of this disease in India is around 5/100,000 with an incidence of 1/100,000. Most often seen in age group of 30 to 50 year and it is 4-5 fold more common in females. Diffuse micro angiopathy, cellular & humoral immune abnormalities and visceral fibrosis are the basic patho physiology mechanisms of systemic sclerosis. No therapy has been shown to be effective in complete cure. Treatment mainly aims at alleviating patient's symptoms, slowing the disease process and prevention of complications

Case Report

Thirty six year old female patient came to emergency department with complaints of abdominal distension and nausea of 10 days duration. She gave history of thickening of skin, restriction of joint movement and opening of mouth which are gradually progressive over 10 years. She also gave history of dry cough of 6 months duration and exertional dyspnea of NYHA class- I in the last 2 weeks and bilateral lower limb swelling of 1 month duration. She gave history of intolerance to cold and also had history of painful ulcers at the tip of fingers and toes, which healed slowly by itself sometimes leaving pitted scars.

On admission she was conscious, alert, dyspneic, tachycardic (pulse rate -110/min ,regular), (respiratory rate-22/min), bilateral pedal edema, Blood Pressure was -100/70mmHg, Oxygen saturation was 95% in room air. Respiratory system-examination revealed fine crackles at lung bases. On physical examination she was thin built, underweight (BMI-14.5kg/m2) and had Muskopf facies (pinched nose, loss of nasolabial fold, expressionless face, microstomia, lip thinning and retraction), symmetrical and bilateral diffuse thickened tight skin in the hands, feet, face and chest. She had salt and pepper appearance of skin over the chest. She had significant restriction in movement of shoulder, elbow joints and opening of mouth. Sclerodactyly and skin tethering was present.

She was on low dose steroids (Daflazacort) and immunosuppressive drugs (MMF) during the past 7 years. She has undergone surgery for cataract in both eyes 4years ago. On evaluation she was found to have hypoproteinemia (5.2g/dl), hypoalbuminemia (2g/dl), normal renal and liver function test, no anemia (Hb-10.8g/dl), no proteinuria). She had Anti-SSA, Anti-Scl 70 antibody positivity. High Resolution CT showed features suggestive of interstitial lung disease (ILD) and also showed dilated distal esophagus. She had normal LV systolic function and moderate Pulmonary Artery Hypertension (RVSP-51mmHg) on Echocardiogram. She also had bilateral pleural effusion, pericardial effusion, mild ascites and a normal liver echotexture on imaging. She had ACR/EULAR score of 18. She was treated with protein rich diet, increased dose of immunosuppressant (Prednisolone, MMF) and proton pump inhibitors, prokinetics, vasodilators (Ambrisentan, Tadalafil and diltiazem). After 3 days of treatment, she showed clinical improvement and is on regular follow up as outpatient.

Discussion

Scleroderma can affect the major organs in the body apart from skin. Reynaud's phenomenon is seen in almost all cases. Nail fold capillaroscopy is used to differentiate between primary and secondary Reynaud's phenomenon. Involvement of lungs and kidney occur usually within 4 years. In kidneys obliterative vasculopathy of lobar and arcuate arteries leads to progressive decrease in renal blood flow, vasoconstriction causing juxtaglomerular hyperplasia leading to RAS system activation and renal vasoconstriction which culminates in high blood pressure and the vicious cycle continues.

In lungs ILD and PAH are the major problems. The extent of interstitial changes in HRCT is the predictor of mortality. Smooth muscle atrophy and fibrosis leading to luminal dilatation and reduced intestinal motility is the basic mechanism in gastrointestinal tract involvement. Presence of tendon friction rubs indicate poor prognosis. In heart pericarditis and myocardial fibrosis can occur as a result of inflammation and recurrent vasospasm causing ischemic reperfusion injuries. Fibrosis in conducting system can cause heart blocks. They also have increased risk of lung and GI malignancy. Hypothyroidism is also seen due to fibrosis in thyroid gland.

Treatment depends on the organ involvement. It includes steroids, Immunosuppressive drugs, Antifibrotic therapy (D-penicillamine) and vascular therapy (Bosentan, PDE 5 inhibitor or Prostacyclin analogues). Low dose aspirin

Fig.1: Salt and pepper appearance of skin. Thickening, hyper pigmentation. Dermal sclerosis - dry skin, loss of hair, decreased sweating

Fig.2: Sclerodactyly - Thickening and tightening of skin of fingers. It can cause the fingers to curl inward and the hands to form a clawed shape. Pitted scar at finger tip

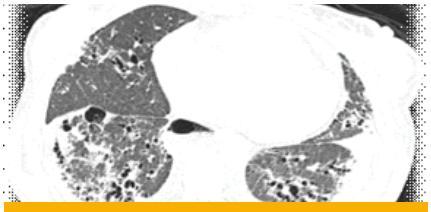


Fig.3: Features suggestive of ILD. Bilateral diffuse ground glass opacity with reticulation and honey combing. Traction bronchiectatic and bronchiolectatic changes were seen.

can be used for prevention of platelet aggregation. Gastro esophageal reflux may be treated with PPIs and Prokinetics. Renal crisis is managed with short term ACE inhibitors and rarely dialysis. Musculoskeletal features are treated with short course of steroids, NSAIDS and physiotherapy. Overall the disease course is highly variable and the response to treatment is unpredictable. Mortality is high in untreated individuals. Mean survival is only 1 year in systemic sclerosis with PAH patients if left untreated.

Conclusion

We reported a case of scleroderma that has interstitial lung disease, pulmonary hypertension and GIT involvement inform of decreased gut motility characterized by dilated esophagus and features of malabsorption like hypoproteinemia. The patient is on protein rich diet, proton pump inhibitors and prokinetics (Pantoprazole, domperidone, Acetylcysteine), immunosuppressive therapy (Prednisolone, MMF), vascular therapy (Ambrisentan, Tadalafil, diltiazem) and is on regular follow up as outpatient.

Percutaneous RF Ablation for Trigeminal Neuralgia - An update

Introduction

Trigeminal neuralgia (TN)is one of the common hemi facial pain syndromes. Worldwide incidence is 4 to 27/100000 populations with slight female predominance. It classically present as paroxysmal episodes of sharp, lancinating pain with exacerbations and remissions along the distribution of trigeminal nerve. The pain either could be a spontaneous or triggered by some non-noxious stimuli like touch,movements,wind exposure,brushing teeth, shaving,chewing and swallowing. Hence these patients are depressed because of the sharp pain affecting their day to-day activities.

Management

Management depends on the type of TN, classical or idiopathic type is due to vascular compression at root entry zone. The Second one is symptomatic TN or trigeminal neuropathy due to pathological causes like multiple sclerosis (MS), CP angle tumours and post trauma. Symptomatic TN is treated with either surgical or medical management towards the primary disease.

Treatment for Idiopathic TN is challenging because of the age (usually presents above 60yrs of age) and limited treatment options. The First one to be the pharmacological management and then comes the interventional pain management, when the pharmacological management fails. The antiepileptic drug carbamazepine is consider to be the first line drug until now. Second line drugs like other antiepileptic's, central muscle relaxants and gabapentin are also helpful to some extent.. The Surgical method - microvascular decompression (MVD) isassociated with greater morbity and mortality in these population.

The Interventional managements are glycerol neurolysis,percutaneous RF ablation and percutaneous balloon compression. Glycerol neurolysis is the traditional method which gives good results but with high recurrence rate and spreading phenomenon (corneal anaesthesia and keratitis). But the Percutaneous RFA technique is very unique because of its long-term pain relief with lesser side effects.

Percutaneous RF Ablation

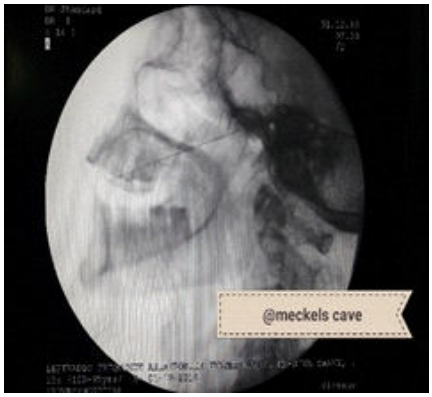
RFA was started long back in 19th century, now itis modified to improve the end effect.

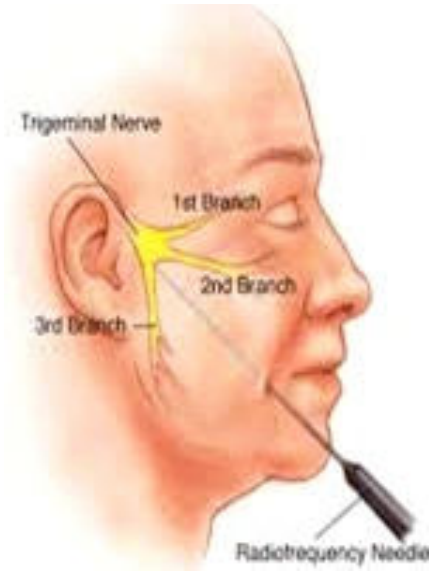
In RFA the thermocoagulation is the method bywhich it producesconduction blocks in the trigeminal root level in Meckel's cave. Before the ablation procedure we do sensory and motor stimulations for mapping the area of interest. This technique particularly guide us to produce a targeted individual nerve ablation in the ganglion, which prevents the spreading phenomenon seen with other chemical injection techniques. Thermocoagulation selectively burns the nociceptive fibres than the tactile one by particular set temperature and time duration(65 to 75 degree C). There by it produces good pain relief without much adverse events. Several comparative studies proved that the RFA provides complete and high grade pain relief with compare to other procedures. It gives 80%-98% of pain relief in initial setting for the duration of 5 to 10yrs. The recurrence rate of 15% is expected at the end of first year, butthe repeat procedure gives highest rate of pain relief for extended years.

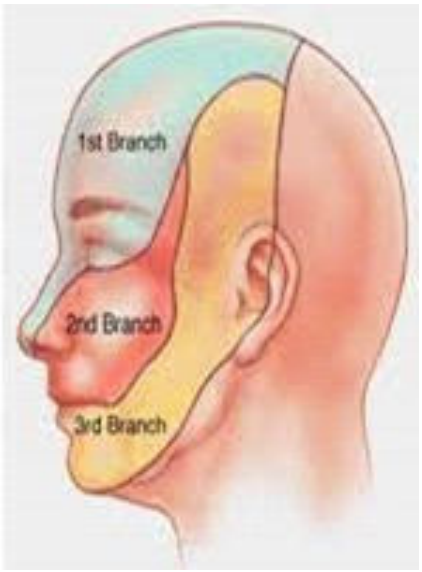
In our hospital,for an octogenarian came with complaints ofsevere shooting pain over the lower jaw for about 3years. He has been treated with carbamazepine for 2yrs and also underwent multiple tooth extraction in the lower jaw for the intolerable pain. Here we did MRI workup and evaluated as idiopathic type of TN. We did percutaneous RFA of trigeminal ganglion selectively along the V3 (mandibular N) area. Now he is verymuch satisfied and doing pain free daily activities.

Summary

RFA is a safe and effective intervention when compared to other techniques so far in case of TN (trigeminal neuralgia). For a successful treatment, Careful evaluation is must to rule out the symptomatic type of trigeminal neuralgia before doing RFA.







EVENTS 2018

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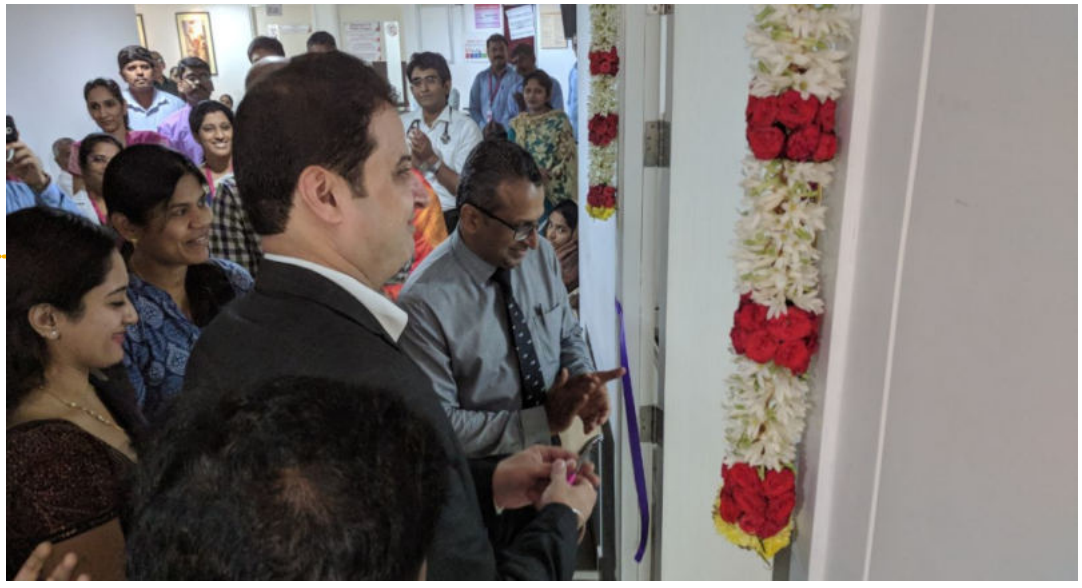
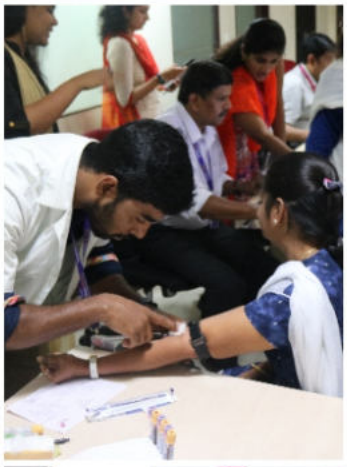
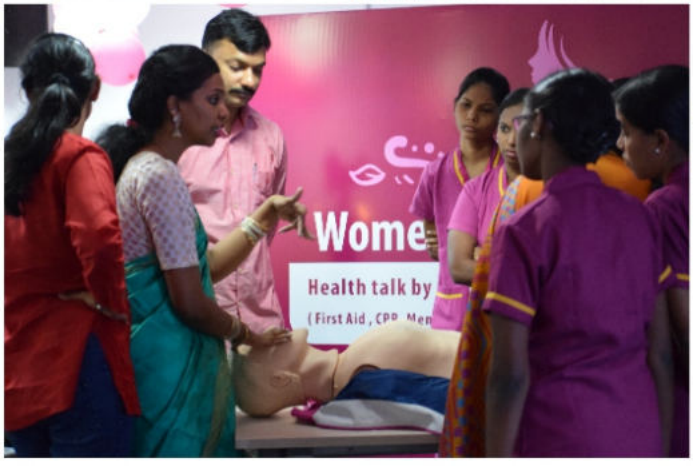


Launch of new Procedure Room

PLATELET RICH PLASMA THERAPY (PRP)

KAUVERY
WOMEN'S DAY PROGRAM 2018





PRESS CONFERENCE
103 YEAR OLD CENTENARIAN FROM CHENNAI UNDERGOES SUCCESSFUL HIP REPLACEMENT

PRESS CONFERENCE - RECENT TRENDS IN REVISION
TOTAL KNEE ARTHROPLASTY - LIVE ORTHO WORKSHOP

PRESS CONFERENCE
COMPLEX RENAL TRANSPLANTATION

WORKSHOP
EFFECTIVE COMMUNICATION FOR CONSULTANTS

PRESS CONFERENCE
LAUNCH OF KAUVERY AORTIC DEPARTMENT

IMA CHENNAI KAUVERY ALWARPET BRANCH BAGGED 5 AWARDS
IN THE ANNUAL STATE IMA CONFERENCE HELD AT KUMBAKONAM

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