



Royal Care



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CHAIRMAN'S COLUMN



Congratulations are in order for the entire team behind the creation of Royal care super speciality hospital and its successful completion of one year of functioning. We have entered the elite club of hospitals to house all specialities under one roof in Coimbatore and competing for high standards with top hospitals in entire Tamilnadu.

We are in the process of expanding the hospital further and plan to complete the comprehensive cancer unit and ultra modern Intensive care unit with 30 more beds within the next year. By the end of 2018 we plan to have bed strength of around 500.

I wish that Royal care should be a pioneer in healthcare for the future generations and create awareness and increase the scope of treatment by participating in clinical research.

Regards

Dr. K. Madeswaran

Founder Chairman





FROM THE EDITOR'S PEN

*"We are all faced with a series of great opportunities
brilliantly disguised as IMPOSSIBLE situations"*

- Charles R Swindoll



To imagine a fully functional super speciality hospital rising from nowhere within a period of 18 months is nothing short of a mammoth achievement. With the enormous support of doctors, paramedical and allied staff and the continuous encouragement by our clients, we have indeed achieved this and have moved on to the second year of our functioning.

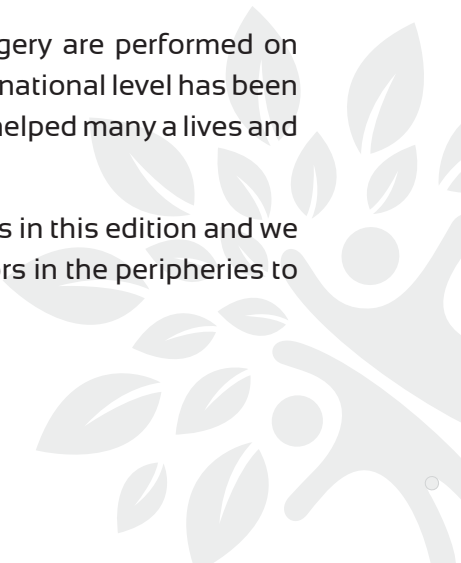
In this edition. We have showcased our achievements in one year, the number of patients who have been treated and had their life made better. We have also touched up on the camps and awareness campaigns we have initiated.

Infrastructure has grown tremendously over the last one year and newer building are arising along with cutting edge technology machines for various treatments including cancer. Cancer awareness campaign has been initiated to continuously educate the public and ensure that appropriate treatment is available.

First of its kind in India, novel treatment ; Bronchial thermoplasty for asthma has been brought to Coimbatore in our hospital to help millions of people suffering with this disease. Interventional radiology has leapt up to huge heights with the incredible equipments available and expertise of our doctors.

Cutting edge Neurosurgery, Cardiothoracic surgery & Hepatobiliary surgery are performed on daily basis here. Endogynecology which has the potential to grow beyond national level has been one of our pillars of success. Rapid stroke treatment , Thrombectomy has helped many a lives and with rehabilitation medicine has brought smiles to many families.

We also have a few articles on interesting cases from various departments in this edition and we plan to bring a page called second opinion which would help many doctors in the peripheries to get in touch with latest management of daily issues faced by them.



HISTORY & SCOPE OF GYNAEC ENDOSCOPY

Dr. S. Kalyanakumari

MS (O&G), Dip. Gyn, Endoscopy (Germany), MBA (HA)
Consultant Gynaecologist & Laparoscopic Surgeon

Dr. Ephraim Mcdowell of America, in 17th century performed the first gynaec surgery removal of a huge ovarian cyst in which he removed 22 pound cyst from Jane Todd Crawford with no anaesthesia. Tense group gathered outside the home with a rope sling over a tree, ready to lynch the surgeon if his experiment proved a failure. The patient recovered in 25 days and she outlived the Surgeon. From this day onwards many pioneers like Dunlup, Sims, Atlee, Doghlas and woman physician Elizabeth Anderson toiled throughout their lifetime to improve the safety and efficacy of surgical techniques.

Laparoscopy has had remarkable impact on the field of gynaecology over a short period of time. The first description of endoscopy is attributed to Phillip Bozzini who in 1805 attempted to observe the interior of the urethra with a simple tube and candle light.

Hysteroscopy was the first gynaecologic endoscopic procedure to be attempted in 1869 by Pantoleoni who introduced cystoscopy into the uterine cavity to diagnose polyps. In 1910 Jacobaeus of Sweeden introduced cystoscope into the peritoneal cavity and coined the term laparoscopy. In 1947 Raoul Palmer of France first introduced lithotomy, trendelenburg position. uterine cannula and created first pneumo peritoneum.

We perform procedure like :-

- Lap sterilisation.
- Difficult lap hysterectomy for huge Uterus and Frozen pelvis.
- Radical lap hysterectomy for gynaec malignancies.
- Conservative surgeries like myomectomy and cystectomy.
- Reconstructive surgeries including metroplasty and tubal reanastamosis.
- Laparoscopic sling surgeries for Uterine prolapse.
- Fertility enhancing hysteroscopic procedure like septoplasty myomectomy, polypectomy, and tubal cannulation.
- Single port surgeries.
- Emergency surgeries for ectopic pregnancy and ovarian torsion.

Introduction of cold light by Gladu and Valmiere and the use of fibroptics by Kampany and Hopkins were undisputed breakthroughs for endoscopy which removed the dangers of accidents from lamp introduced into the cavity.

Palmer of France introduced laparoscopy as a standard surgical tool for tubal sterilisation. Semm of Germany reported the performance of Salpingectomy , Myomectomy, Oophorectomy, Ovarian Cystectomy and Salphingostomy through the laparoscope in 1974. He performed first lap assisted hysterectomy in the year 1989. We salute all these great souls for their contribution to the field of gynaec surgery.

At present with the advent of modern optics and the advancement that has happened in the field of electro surgical equipments and instruments every surgical procedure is possible through key hole. In fact laparoscope has its own advantages like excellent magnification and 360° view which is not possible with laparotomy.

Our state of the art laparoscopy theatre is equipped with Karl Storz Spice and Stryker iSuite optics only few centers in India has the facility.





Because laparoscopy offers shorter hospitalisation, less post operative pain, less morbidity and shorter recuperation time than laparotomy, operative laparoscopy has gained widespread acceptance. These techniques are boon to womanhood who can not afford delayed recovery and prolonged hospital stay.

A 51 year old female with c/o severe pain abdomen, bloating on and off for one week in October 2016. She had similar episodes in the past from the year 2012, diagnosed to have huge pelvic mass with collection (actinomycosis pelvic with dense pelvic endometriosis), gallbladder calculi and ventral hernia. She was operated several times in the past and each time surgery was abandoned due to dense pelvic adhesions between bowel loops and pelvic organs.

Surgeries done in the past,

- ♦ Diagnostic laparoscopy and draining of pus in August 2012.
- ♦ Laparotomy and omental biopsy in January 2013.
- ♦ Diagnostic laparoscopy and appendicectomy in August 2013.
- ♦ Laparoscopic adhesiolysis, cholecystectomy and anatomical repair of umbilical hernia.
- ♦ Finally diagnostic laparoscopy in November 2014.

During all these surgeries pelvic mass was left untouched with the fear of injury to vital organs.

This patient was prepared with a full course of antibiotics for actinomycosis and 3 doses of GnRh analogue. She was posted for laparoscopy on 12th Jan 2016.

On entering the abdomen, multiple defects noted throughout the anterior abdominal wall largest measuring from 8 X 8cm with small and large bowel loops as contents.

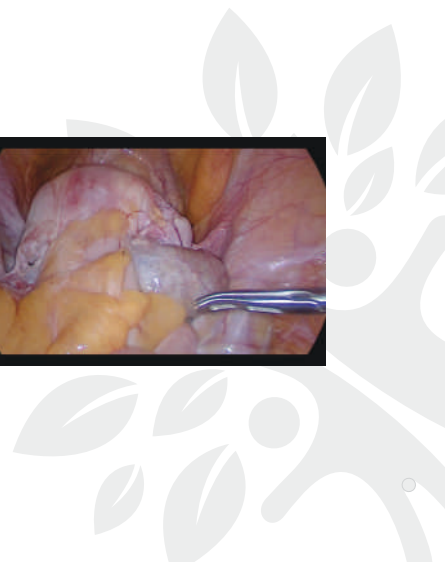
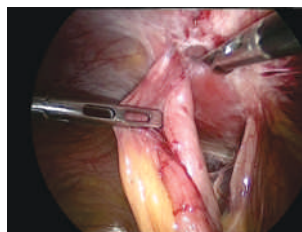
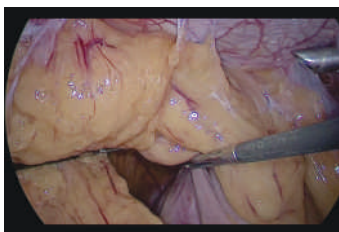
After releasing the bowel loops pelvic cavity approached.

Pelvic organs could not be visualised due to dense adhesions between the bowel loops and the pelvic organs. Only after gentle adhesiolysis Uterus and both adnexae could be made out.

Uterus was bulky, both ovaries were enlarged & cystic filled with chocolate coloured fluid densely adherent to lateral pelvic wall, Ureters, posterior surface of the Uterus, small bowel loops and rectum. POD completely obliterated.

Enterolysis, Ureterolysis was performed, followed by hysterectomy and bilateral salpingo oophorectomy proceeded. Meshplasty for hernial defects done. This patient is finally free of complaints and she is on regular follow up.

During all these surgeries pelvic mass was left untouched with the fear of injury to vital organs.



PITFALLS IN EVALUATING CHEST PAIN IN LOW RISK PATIENT. WHY PATIENT AND CLINICIANS MISS?

Dr. K. Chockalingam, MD, DM

Consultant Interventional Cardiologist

Dr. R. Chandramohan, MD, DM

Consultant Interventional Cardiologist

Angina pectoris was first clearly described in 1768 by William Heberden. Classic angina pectoris may not be pain at all but rather a "discomfort," with a "squeezing," "pressure," "tightness," "fullness," "heaviness," or "burning" sensation. Classically, it is substernal or precordial in location and may radiate to the neck, jaw, shoulders, or arms. Radiation to left-sided structures is typical, but location and radiation to both sides or to only the right side may be consistent with angina.

Clinicians usually rely on history for distinguishing cardiac from non cardiac pain and in ordering further tests. In patients with ACS, 25% nondiabetics and up to 40% of diabetics can have atypical presentations ranging from dyspnea, right sided chest pain, right shoulder pain, vomiting, nausea, fatigue, epigastric discomfort.

Pain radiating to right arm or right shoulder has a positive likelihood ratio of 4.7 for predicting Acute myocardial infarction when compared to pain radiation to left arm-2.3, diaphoresis-2.0, exertional pain-2.4, both shoulders-4.1, described as pressure-1.3.

In the Multicenter Chest Pain Study, acute ischemia was diagnosed in 22% of patients who presented to the ED with sharp or stabbing pain and in 13% of patients with pain with pleuritic qualities. Furthermore, 7% of patients whose pain was fully reproduced with palpation were ultimately recognized to have ACS. The relief of

chest pain by the administration of a of liquid antacid does not predict the absence of ACS.

Why and how our patients (and also physicians) get confused with dyspnea and angina?

When William Heberden described angina he was so meticulous in his description and observation. One can rarely expect such a description from any of our patients. Some patients (especially elderly and women) mistake any mid sternal discomfort as dyspnea instead of angina. Error in describing angina is the commonest cause for dyspnea playing this dubious dual role.

Low risk group:

In India, 10-15% of patients with ACS are younger than 40 years. 20% of patients with known IHD do not have any of the conventional risk factors for CAD, which illustrates the potential pitfalls of over-reliance on risk factor in the acute setting.

It is critically important that the emergency physician/clinician in Out patient department understand that a large percentage of patients defined as low risk in the literature are not at enough risk to discharge home without further testing. The difficulty for the physician is balancing judgement, appropriate testing strategies and evidence based principles to manage this group of patients in a safe and cost effective manner.

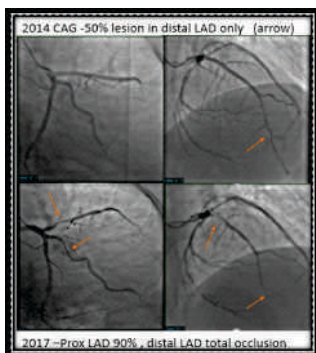
Prior negative cardiac workup

TMT: 3 -year event rate for patients with prior negative stress testing (TMT) results has been reported as being between 5% and 15%. A negative stress test result by itself does not rule out CAD. A stress test can be considered valid during the time it is performed to rule out ischemia as the cause of patient’s chest pain during that visit. Physicians should have low threshold for repeating stress testing on subsequent chest pain evaluations.

Coronary angiogram: Many physicians take comfort in a prior normal coronary angiogram and a belief that this portends very low risk for the patient re-presenting with chest pain. 1 year event rates in 7656 patients with mild CAD(<50% stenosis) or normal coronary arteries pooled from 3 randomized trials found a serious event rate(defined as death or AMI) of 3.3% in patients with minor CAD and 1.2% in patients with normal coronaries. Although a prior negative angiogram may be helpful in risk stratification, in a patient with a compelling history or in a high risk clinical situation, it cannot be used alone to discharge a patient without further testing

Above facts are well illustrated in the cases described below:

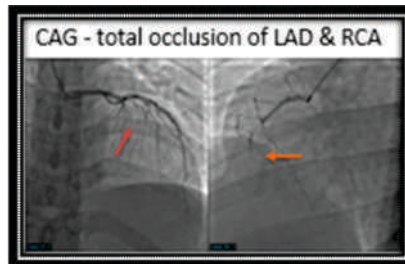
Case-1: 65 year male with previous history of COPD, non diabetic, non-hypertensive, non smoker had minor CAD with 50% lesion in distal LAD in the Angiogram done in 2014 for



disproportionate dyspnea. There was no significant lesion in LCX & RCA. His LDL was 110 mg/dl. He was advised to continue antiplatelets, statins and lifestyle modifications. He stopped his cardiac medications after one year and did not follow the dietary advice. He had breathing difficulty for 2 days and he came to pulmonology OPD. Due to disproportionate symptoms cardiologist opinion sought and he advised to do ECG. Patient resisted since his angiogram done 3 years back had only minor CAD and wanted symptomatic treatment for his COPD. Since cardiologist insisted, ECG was done which showed Acute AWMI. He was wheeled into cath lab immediately and CAG showed critical lesions in all 3 blood vessels. This shows the need for continuing statins even if a patient has minor CAD/branch vessel disease to prevent disease progression. Atherosclerosis is slow process but it may progress rapidly in some individuals with genetic predisposition even without risk factors

Case-2

40 year lady has presented with dyspnea on exertion. she is not a diabetic or hypertensive and no family history of premature CAD. Her dyspnea



was attributed to her sedentary lifestyle in several places. ECG – No evidence of ischemia. Echo showed global hypokinesia of LV with moderate LV dysfunction. CAG showed chronic total occlusion of LAD and RCA. CABG done and her LV function normalised.



Women and Heart

1. Women younger than age 45 years also develop CHD and have a worse prognosis than men.
2. IHD in women is a consequence of both obstructive and a significant nonobstructive microvascular disease which is also prognostically important.
3. Women have more diverse pain symptom presentation and also non pain symptoms of excessive fatigue and dyspnea which are more precipitated by emotional or mental stress than physical activity
4. Low risk women requires no further testing
5. Exercise ECG done for functionally capable exercising women
6. Choice of further testing in intermediate to high risk on a poor functional capacity women may be either stress MPI, CMR/CT angio/coronary angiogram
7. Non high risk test results should be symptom guided re- imaging. High risk test results should be sign guided re-imaging.
8. Symptomatic women- CMR and CTA/CAG accurate for detection of obstructive CAD and non obstructive CAD burden.

Summary:

Although the initial history, ECG, and biomarkers are critically important, obtaining serial ECGs and biomarkers improves sensitivity in detecting ACS to 85%. However, physicians must always keep in mind that for many patients with atypical symptoms, relying on normal or unchanged ECG findings, negative cardiac biomarker levels, or the absence of cardiac risk factors, is not enough to safely discharge a patient without further workup. Hence some type of objective testing such as TMT, stress echocardiography or CAG/CT CAG should be strongly considered before or soon after, discharge in all patients who do not have a clearly explained reason for their chest pain.

In Royal Care superspeciality Hospital, Cardiology department offers

- **Primary PCI services 24*7. We target door to balloon time of 30 minutes for optimal outcomes**
- **Education programme for relatives and care givers of cardiac patients. More than 600 families attended and benefited.**
- **Rehabilitation programme for cardiac patients**
- **Dedicated Heart failure clinic**

**OPD services from 8 am to 8 pm.
For appointments and information
contact: 7397769347**



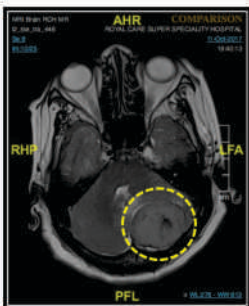


- Department of Neurosurgery, Royal Care Hospital, headed by Dr. Madeswaran has well equipped with all available modern equipments which including advanced surgical microscope for performing microneurosurgery, surgical neuronavigation system for precise and radical surgeries, intra operative neural monitoring to prevent neural injury, neural endoscopes for key hole surgeries and all diagnostic equipments / modalities available up to date.
- During the last one year we have performed all neurosurgical procedures which includes aneurysm clipping, tumour excision from eloquent areas, biopsies from brain stem lesion, neuroendoscopic procedures for deep seated lesions with minimal morbidity.
- Round the clock head injury surgeries are preformed with better outcome.
- Our trauma team performs combined procedures by neurosurgeon, faciomaxillary surgeon, orthopaedic surgeon, spine surgeon and plastic surgeon.
- We have specially equipped ICU and Neuro ICU for complete care and better outcome.

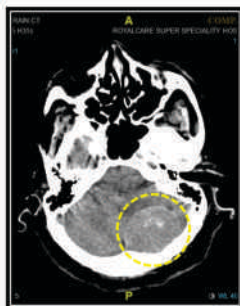


Dr. K. Madeswaran performing Neuronavigation assisted biopsy of brain lesion

Some of our routine neurosurgeries...



MRI Brain image of Posterior fossa tumour



CT Brain image of Posterior fossa tumour



Post Operative CT image Showing complete removal of the tumour



MRI Brain image of Brain tumour in left Fronto parietal region



CT Brain image after Near total excision of Brain tumour



GLIMPSES



Hand Hygiene Day at Coimbatore Railway Station



Camp at Anthiyur



Tree Planting



Medical Checkup for Drivers



Cardiology Camp



Bronchial Thermoplasty Launch



CAMP SCREENING



Camp at Vellakoil



Camp at Gandhipuram,



Camp at Oddanchathiram



Cardiology camp at Vagarayampalayam



Camp at Chinniyampalayam

TOTAL ARTERIAL CORONARY BYPASS

Dr. Krishna Kishor, MS, DNB(CTVS)

Consultant Cardiothoracic Surgeon

Mr D aged 59 year male, presented to Cardiology unit with Class II angina and dyspnea, and no previous history of MI. He was evaluated by Dr K.Chockalingam & team and was found to have > 95% left main coronary artery disease with two vessel involvement and was referred to Dr S Krishna Kishor for urgent coronary artery bypass grafting.

Conventionally CABG is done at our institute as an off pump procedure with either one or two arterial conduits to the diseased vessel and the rest would be grafted with saphenous vein as the conduit.

In this gentleman, the entire grafting was done with arterial conduits despite the semi emergency status. Left internal mammary artery was grafted to LAD and the left radial artery was anastomosed sequencing terminal marginal and diagonal branch.

Total arterial grafting has an edge over

saphenous veins in terms of longevity and quality of the grafts, however the quality of the target vessel determines the conduit selection

Why total arterial revascularization (TACR)?

To give patients the greatest possible long-term benefit of coronary artery bypass grafting (CABG) with the same low perioperative risk and morbidity that is currently being achieved with conventional CABG (operative mortality 1-2%)

Graft patency determines prognosis in coronary artery bypass grafting (CABG).

Numerous reports over the past 20 years have documented superior patencies and prognosis when multiple arterial grafts are used, yet less than 10% of CABG have multiple arterial grafts.

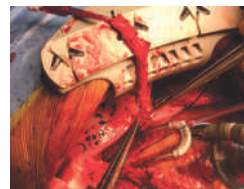
The current practice is to use bilateral Internal Mammary artery constructed as a Y graft with sequential distal anastomosis and an anaortic technique.



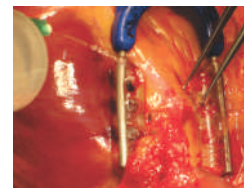
LIMA to LAD



LIMA Harvest



Radial Sequential



RIMA - Y to OM

Several conduits have been proposed, with varying degrees of success.

- **Saphenous vein grafts (SVG)** begin to fail with intimal hypertrophy and then atheroma after 5 years, with patency rates of 50% to 60% at 10 years, and <30% at 15 years.
- **Left and Right internal thoracic artery (LITA)** patency is >95% at 10 years and >90% at 20 years.
- **Radial artery** is extremely versatile and can reach all territories, but is muscular and vulnerable to spasm and competitive flow.
- **Right gastroepiploic artery** is also muscular, and is best suited to the posterior descending coronary artery, especially in reoperations and is also affected by competitive flow.

Advantages

- Arterial conduit allows high degree of versatility
- Has long term patency rates
- Minimises the need for reintervention
- Improves the long term survival rate
- Low incidence of intimal proliferation and narrowing

Limitations/ contra indications

- Diabetes increases the risk of sternal complications
- Deep sternal wound infection
- Competitive flow in the native coronaries

In Royal care hospital we routinely perform Total arterial bypass grafting with composite grafts in suitable patients with good results. We have a 99% follow up data which reveals an improvement in patient activity and LV function on Echo. Royal care stands out unique with very low infection rate and Morbidity.

INTERVENTIONAL RADIOLOGY

Dr. Madan Mohan

MD (Radiology), PDCC (Neuroradiology), Fellowship in Interventional Neuroradiology
Consultant Interventional Radiologist

Interventional radiology is a medical subspecialty in which radiologists perform Minimally-Invasive procedures utilizing the guidance of radiological techniques (including X-ray Fluoroscopy, CT scan and Ultrasound).

The Interventional Radiology division of the Department of Radiology at Royal Care Hospital is equipped with State-of-the-art imaging technology.

This includes,

- **The Digital Subtraction Angiography (DSA) lab IGS 520 from GE** - The heart of any Interventional Radiology unit is the DSA Lab. Apart from the routine Fluoroscopy, Digital subtraction imaging and 2D roadmapping facilities, this advanced lab also is loaded with cutting-edge software features including 3D rotational angiography, 3D road-mapping and Needle tracking softwares. These softwares are essential in performing complex Neurovascular Interventions and challenging percutaneous needle-guided procedures.
- **Ultrasonography - Philips Epiq 5G** - Equipped with Needle-guidance and needle enhancement softwares which aid in the performance of percutaneous procedures.
- **Computed Tomography CT scanner - Siemens Somatom Scope**

We provide Interventional Radiological services catering to a wide variety of Medical Subspecialties. This includes,

Neurovascular interventions

- Acute Stroke interventions (Thrombectomy)
- Intracranial aneurysm treatment - Coiling, Flow diverters
- Carotid-cavernous fistula treatment - Coiling
- Embolization of Intracranial Arteriovenous malformations (Pial and Dural AVMs) - With Onyx and/or glue
- Carotid artery stenting

Peripheral vascular interventions

- Peripheral vascular disease - Angioplasty and stenting
- Bronchial artery embolization for haemoptysis
- Uterine artery embolization for fibroids
- Tumor embolization
- Transarterial chemoembolization (TACE) for Liver tumors (Hepatocellular carcinoma)
- Acute limb ischemia (Thrombectomy and/or Intra-arterial thrombolysis)
- Acute gastrointestinal haemorrhage
- Venous interventions for Budd-Chiari syndrome
- IVC filter placement
- Varicose vein treatment - Laser / RFA



Non-vascular interventions

- Percutaneous transhepatic biliary drainage (PTBD) and Antegrade biliary stenting
- Percutaneous nephrostomy (PCN) and Antegrade DJ stenting
- Radiofrequency ablation for Liver tumors
- Microwave ablation for Liver tumors
- Image-guided (CT/USG) Percutaneous drainage procedures
- Image-guided (CT/USG/Fluoroscopy) biopsies

We provide round-the-clock support in the management of Acute vascular emergencies - Like Acute Stroke, Acute limb ischemia, Traumatic vascular injuries, Acute gastrointestinal haemorrhage.

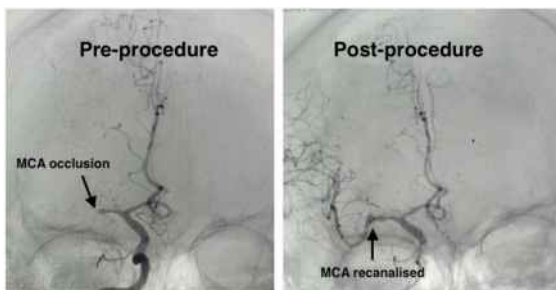
We are presenting a few of the Neurovascular procedures that we have performed in the last year.

Thrombectomy for Acute Stroke

Interventional radiology has now become a mainstay in management of Acute ischemic stroke. In addition to IV thrombolysis in cases presenting in window period (<4.5 hours), endovascular treatment (Thrombectomy) is performed for cases with large vessel occlusion (like ICA, M1-segment of MCA).

Case -

A 60 year old male patient presented with acute-onset of weakness of left upper and lower limb (Grade 2/5 power) associated with deviation of angle of mouth. Patient presented to Emergency room 2 hours after symptom onset. Non-contrast CT did not show any abnormality. A CT angiogram revealed occlusion of right Middle cerebral artery. Patient was shifted to the DSA lab and a thrombectomy done. The procedure was completed within 1.5 hours of presenting to the hospital. Patient’s power gradually improved over the next few days and at the time of discharge, the limb power was 4+/5.

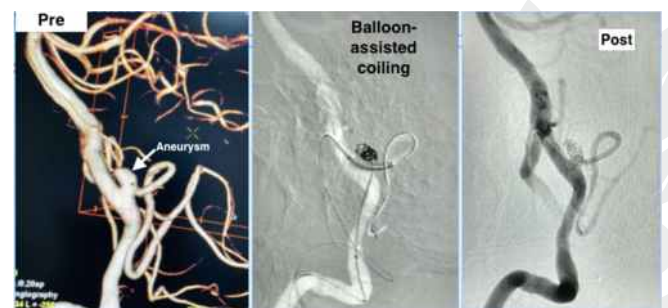


Aneurysm Coiling -

Case -

A 57 year old male presented with history of acute-onset headache (Thunderclap headache) of 7 hours duration. CT revealed Subarachnoid haemorrhage involving the CSF cisterns of the posterior fossa. DSA done revealed a wide-necked aneurysm involving the Posterior inferior cerebellar artery (PICA) origin.

The patient was taken for aneurysm coiling. As the aneurysm was wide-necked, a balloon was navigated across the neck of the aneurysm via the opposite vertebral artery and basilar artery and coiling of the aneurysm was successfully accomplished. The patient was managed for his SAH and was discharged 2 weeks later with no neurological deficit.





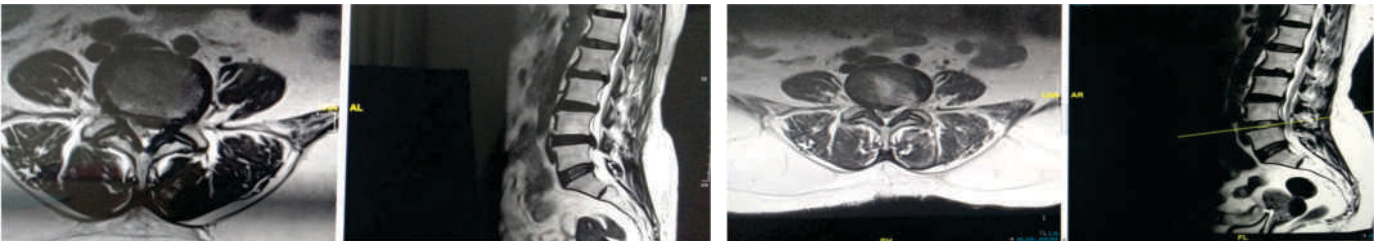
Dr. M. Sudhakaran MS (Ortho), DNB (Ortho), MNAMS, MRCS (Edinburgh), FNB (Spine Surgery)
Consultant Orthopaedic Spine Surgeon

The center has experience, expertise and innovation to offer the most appropriate surgical approaches for treating difficult spine conditions. The specialist Spine Surgeon Dr.Sudhakaran focuses exclusively on treating all spinal conditions and injuries. The department covers the whole spectrum of conservative treatments and surgery for spine problems. Our treatment procedures are tuned to internationally acclaimed offerings.

Our team of doctors includes Dedicated Spine Surgeon, Neurologists, Developmental Neurologists, Neuropsychologists, Rehabilitation specialists, Physiotherapists, Intensivists, Radiologists, Anesthesiologists, trained nurses and paramedical staff.

Common spine problems we treat are

- ♦ Back pain
- ♦ Neck pain
- ♦ Spondylolisthesis- one spinal bone is slipped over the other
- ♦ Prolapsed intervertebral disc (commonly known as slipped disc)
- ♦ Spine fractures
- ♦ Osteoporosis in spine (weak bones)
- ♦ Spinal deformities- Scoliosis and Kyphosis- commonly called ‘crooked spine
- ♦ Spinal infections- tuberculosis, bacterial, fungal etc
- ♦ Spinal tumours- malignant and benign



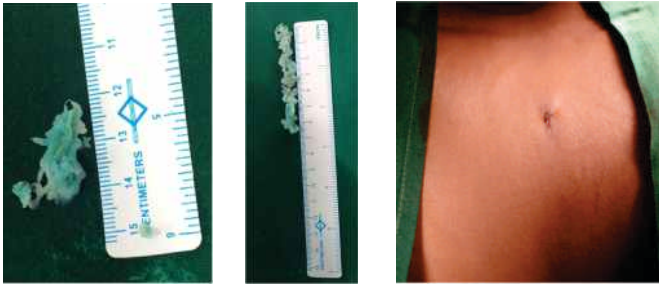
We have state of the art operation theatres, high end C-arm, computer navigation with O-arm (intraop CT) and best quality spine endoscopy equipments.

We carry out minimally invasive spine procedures like keyhole vertebroplasty and kyphoplasty for spinal fractures, minimally invasive spinal fusion, percutaneous pedicle screw fixation, microscopic/endoscopic discectomy, and microscopic decompression of lumbar pathology. Apart from these minimally invasive procedures, the other routine major surgeries of spine like artificial disc replacement, treatment of cervical and dorsal myelopathy, spinal deformity (scoliosis and kyphosis) correction, spinal tumour surgery and treatment of spinal fractures are routinely done.

Patient safety and quality care are our top priorities. We use intra-operative real-time neural monitoring, a cutting edge technology, which can help in reducing the risk of paralysis and nerve damage during complex spinal surgery such as deformity correction and tumour excision and reconstruction.

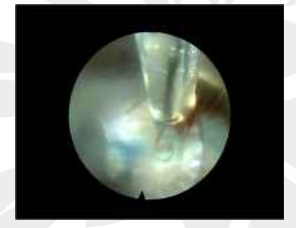
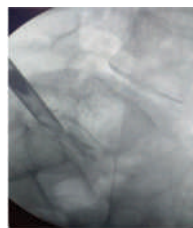
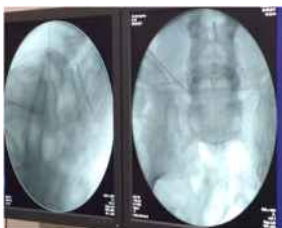
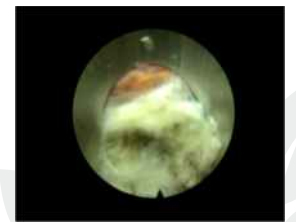
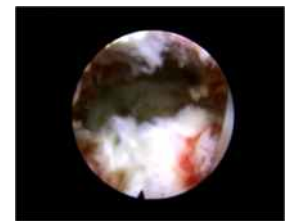
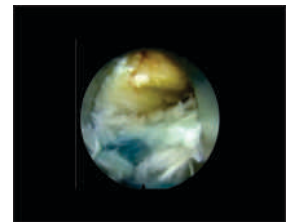
Through computer-assisted technology and highly specialized tools, minimally invasive surgery is an attractive option for patients who want a quicker recovery after surgery, less post-operative pain, and smaller incisions.

We have in-house multispecialty support along with world class operative, post op and ICU care.



Endoscopic Spine Surgery Case:

- 8:15 am - Presented to hospital with low back pain with left sided sciatica for 5 weeks
- 9:45 am - Completely evaluated in ER clinically by specialist and MRI taken
- 10:15 am - MRI showed acute disc prolapse (L 4-5) requiring intervention
- 10:45 am - Pt consented for endoscopic spine surgery after understanding advantages of it
- 01:00 pm - Endoscopic discectomy done under conscious (Pt Awake & Aware) sedation
- 2:20 pm - Pt sent to postop recovery for 2 hours.
- 5:00pm - Pt discharged with oral pain killers.



A BYPASS TO BRAIN

Dr. K. Vijayan
MD, DNB, DM
Consultant Neurologist &
Neuro Sonologist

Dr. K. Madeswaran
M.Ch
Chairman & Consultant
Neuro & Spine Surgeon

Dr. Krishna Kishor
MS, DNB (CTVS)
Consultant Cardiothoracic
Surgeon

Dr. R. Ramya
DNB, DM
Junior Consultant
Neurologist

82 year old male patient presented with recurrent episodes of TIA involving Lt upper and lower limbs lasting for few seconds, which becomes normal after he falls down. He had recently been started on antihypertensive medications as his BP was 200/110 mmHg.

He was admitted to ER and medical officer administered clonidine and lecanidipine as BP was still very high. Whenever he sat up, he developed left sided hemiplegia, which improved on putting the patient in supine position and infusing fluids to maintain BP above 140/90mmHg.

His MRI brain was normal and the bruit over his right carotid artery confirmed that the TIA was definitely hemodynamic. Hence BP was carefully maintained above 140/90mmHg by titrating medications and periodically evaluating BP in both sitting and standing postures within one hour of administering drugs.

Calcium channel blockers were avoided and patient was optimised for CCA-ILA by pass as the vessels were friable and plaque was hard.

Patient is doing well after surgery and is attending regular outpatient clinic. No further episodes of TIA or focal neurological deficits were seen.

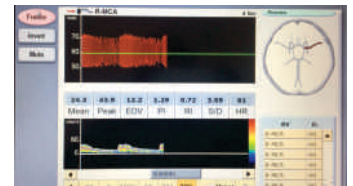
CV DOPPLER DONE SHOWED
RT CCA DISTAL OCCLUSION



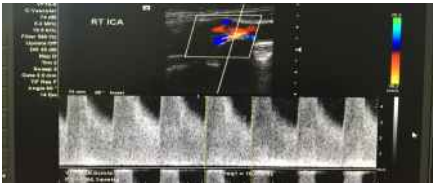
RT CCA-ICA BYPASS
IN PROGRESS



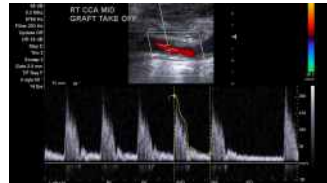
RT MCA FLOW BEFORE BYPASS



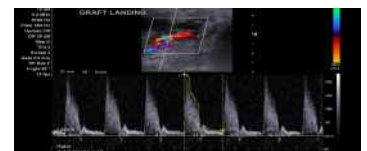
RT ICA SHOWING HIGH VELOCITY OF 400MM/S,
SUGGESTING SIGNIFICANT OCCLUSION



DOPPLER SHOWING FLOW ACROSS
RT CCA AND GRAFT TAKE OFF



FLOW ACROSS GRAFT LANDING



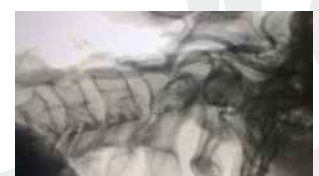
TCD DONE, SHOWS BLUNTED FLOWS IN RT MCA AND
ACA COMPARED TO THE LEFT



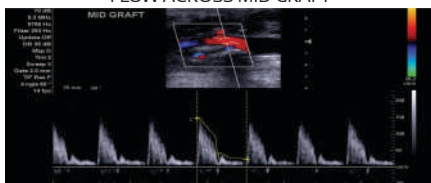
RT MCA FLOW IMMEDIATELY AFTER
THE BYPASS DURING SURGERY



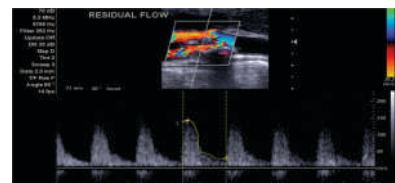
DSA CONFIRMED
THE DOPPLER FINDINGS



FLOW ACROSS MID GRAFT



DOPPLER SHOWING RESIDUAL FLOW
ACROSS THE STENOTIC SEGMENT





A RARE CA(U)SE OF COUGH

Dr. Nachimuthu Kumar
MD (Internal Medicine)
Consultant Internal Medicine

Dr. Thiruvallur Prabu Anand
MS (Gen Surg)
Registrar in General Surgery

Dr S Paulvannan
MS, DNB, FRCS, FRCS,
HPB Fellow (Cambridge, UK)
Consultant Surgical Gastroenterologist,
HPB, GI Oncology and
Laparoscopic Surgeon

70 year old lady was admitted with continuous cough producing large quantity of sputum aggravated by food intake and lying down. She also had fever, anorexia and weight loss of 1 month duration. She was malnourished and dehydrated. Initial investigations showed raised WCC, creatinine and ESR, low albumin and a normal chest X-ray. Sputum for culture has grown E Coli (ESBL & No AFB). CT scan of thorax and abdomen showed large gastric diverticulum herniating through the diaphragm. Gastrograffin appeared in the left bronchus immediately after oral administration confirming a gastro bronchial fistula. An OGD showed a small inflamed area in the posterior wall of the gastric fundus.

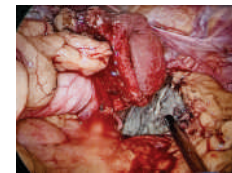
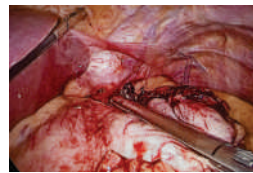
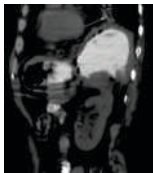
She was optimised with IV fluids, TPN, nebulisers, chest physiotherapy and IV antibiotics. She was then taken up for laparoscopic procedure. During the laparoscopy a complex gastro bronchial fistula with an loculated abscess in between was seen. The gastric diverticulum from the posterior wall of the stomach was separated from the left lung base. The abscess cavity containing food particles was

thoroughly washed out. The gastric diverticulum was excised with endo GIA stapler and the staple line was over sewn with 3-0 PDS. There was obvious air leak from at least four terminal bronchioles. In view of the active infection, it was decided not to repair the resultant diaphragmatic defect (7 to 8 Cm) using a composite mesh. The defect was too large for a primary suture repair as well. A 28 Fr drain kept in the abscess cavity.

The expected air leak continued for a week and settled gradually. At the time of discharge she was tolerating a normal diet and able to sleep without cough. Follow up chest X-ray was normal.

To our knowledge, this is the first case of spontaneous Gastro bronchial fistula reported in the literature. The key points in this case are the typical history, appropriate evaluation, adequate optimisation and succesful minimally invasive surgical treatment.

Our Surgical gastro enterology department focuses on Advanced laparoscopic surgery, Laparoscopic Gastro intestinal Onco and Bariatric Surgery.



Laparoscopic Surgical Gastro-enterology

“Our goal is help patients achieve the best results with minimal pain and a fast return to normal activities”

- Surgeries on Oesophagus, Stomach, Appendix, Intestines.
- Surgeries on Gall Bladder, Spleen, Liver and Pancreas.
- All abdominal emergencies & trauma
- All kind of hernias.
- Surgery for Gastro-oesophageal reflux disease.
- Ano rectal diseases - abscesses, fistula, fissure and piles.

Gastro-intestinal Surgical Oncology

“United in our efforts to provide compassionate and advanced care to every patient”

We have a multi-disciplinary team to treat all types of GI malignancies.

- Cancers of Oesophagus & Stomach.
- Liver, Pancreas & Biliary Cancer.
- Colon & Rectal Cancers.

Minimally Invasive Bariatric Surgery

“Designed to help patients succeed”

We offer variety of Bariatric procedures according to the patient’s needs:

- Sleeve Gastrectomy.
- Gastric Bypass (Roux-en-Y)



YOUR LUNG IS OUR RESPONSIBILITY

Dr. V.R. Pattabi Raman

MD, DNB (Resp Dis)
Consultant Interventional
Pulmonology & Sleep Medicine

Dr. S. Mahadevan

MD (Resp Dis)
Consultant Interventional
Pulmonology & Sleep Medicine

Dr. Arjun Srinivasan

MD, DM (Pulm & Crit. Care)
Consultant Interventional
Pulmonology & Sleep Medicine

The team has established this sub – speciality in this region and are always pushing boundaries, embracing innovations to help alleviate patient suffering in this nascent field. They are backed by state of the art equipment, most comprehensive bronchoscopy suite, experienced technical team and onsite anaesthesia work station to carry out complex interventional procedures on the sickest of patients with highest standards of safety.

Interventions include :

- Endobronchial ultrasound
- Radial probe ultrasound
- Medical thoracoscopy
- Rigid bronchoscopy
- Pediatric bronchoscopy
- Bronchial Thermoplasty for asthma
- Cryo debulking
- Cryo TBLB

We are the referral center for management of various

Complex acute pulmonary conditions including

- Pneumonias (bacterial/ fungal / tubercular)
- Acute respiratory distress syndrome
- Acute worsening of COPD
- Acute worsening of Asthma
- DVT & Pulmonary embolism
- Central airway obstruction
- Pneumothorax

Chronic pulmonary disorders

- COPD
- Bronchial Asthma
- Interstitial lung disease
- Sarcoidosis
- ABPA
- Primary Pulmonary artery hypertension
- Cor Pulmonale
- Obstructive sleep apnea & obesity hypoventilation

The team has also introduced for the first time in India "**Bronchial Thermoplasty**", a novel treatment for chronic bronchial asthma, which will help alleviate the symptoms and improve quality of life for thousands of patients with this crippling illness.

BRONCOSCOPY SUITE





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- Cardiology & Interventional Cardiology
- Cardiothoracic Surgery
- Dermatology
- Dental & Maxillofacial Surgery
- Endogynecology (Laparoscopy)
- ENT, Head & Neck Surgery
- General & Laproscopic Surgery
- Fertility Care Clinic
- Internal Medicine & Diabetology
- Interventional Pulmonology
- Interventional Radiology
- Master Health Checkup
- Medical Gastroenterology
- Medical Oncology
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- Nephrology
- Neurology
- Neuro Surgery
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