VOLUME - XIX, APRIL 2025

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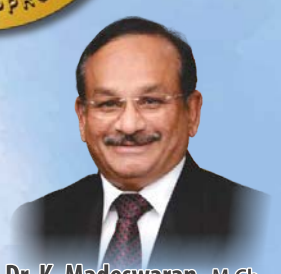

Dr. K. Madeswaran, M.Ch.,
Chairman & Managing Director

Only Hospital in Coimbatore
Meets the American &
International Health Care Standards

- **Editor & Publisher**

Dr. K. Madeswaran
Chairman - Consultant Neuro & Spine Surgeon

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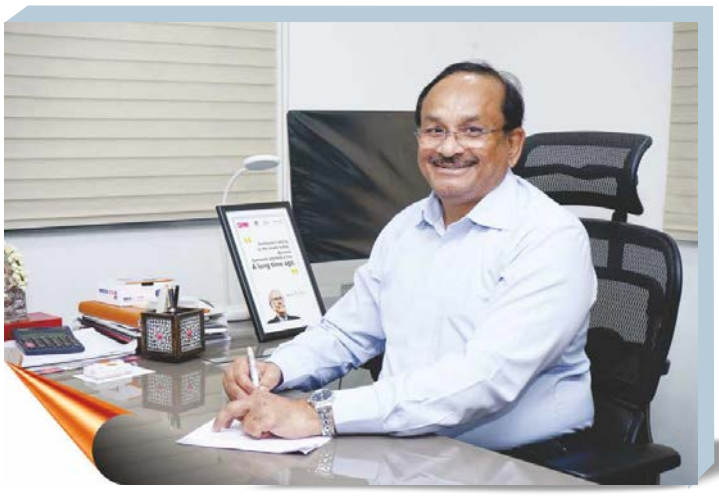
CHAIRMAN'S COLUMN



"The best way to find yourself is to lose yourself in the service of others." – Mahatma Gandhi

Dear Patients, Families, and Esteemed Members of Our Healthcare Community,

As we step into another promising season of growth and care, I am filled with immense gratitude for the dedication and compassion that define our hospital. Our mission has always been to provide world-class healthcare while upholding the values of empathy, integrity, and innovation.

In the ever-evolving landscape of medicine, we remain committed to integrating the latest advancements with personalized patient care. Our doctors, nurses, and staff work tirelessly to ensure that each patient receives not only the best treatment but also the warmth and reassurance they deserve. As Florence Nightingale once said, "Let us never consider ourselves finished nurses... we must be learning all of our lives." This sentiment holds true for all of us in the medical profession—we continue to learn, evolve, and improve so that we can serve you better.

This year, we are excited to introduce new initiatives aimed at enhancing patient experience, expanding our medical services, and fostering a culture of holistic well-being. We believe that true healing goes beyond medicine—it is built on trust, comfort, and a deep connection between care givers and patients.

To our patients, thank you for placing your trust in us. To our medical and administrative teams, your dedication and resilience inspire us all. Together, we continue to uphold our commitment to excellence in healthcare.

"Wherever the art of medicine is loved, there is also a love of humanity." – Hippocrates

Wishing you good health and well-being always.

Warm regards

Dr. K. Madeswaran
Founder Chairman

contact@royalcarehospitals.in 0422 - 2227000

From The EDITOR'S DESK

"Success is the sum of small efforts, repeated day-in and day-out. "

- Robert Collier

The hard work and efforts taken by the chairman to establish a flagship hospital in Coimbatore continues to bear rewards as we continue to grow and set benchmarks in the world of healthcare. The new block is under construction in full swing and shall accommodate nearly 500 more rooms. The state-of-the-art burns ICU and operation theatre shall be housed in this unit.

The Royal Care Institute of Nursing's second batch lamp lighting function was conducted with great enthusiasm by the dean of CMCH, Dr.Nirmala and was attended by a lot of faculties.

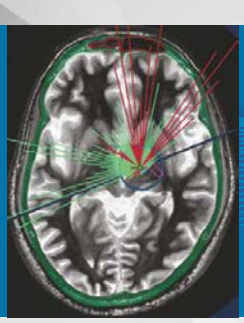
The 8th Annual day functions – Royal fest was conducted by the staff and management with great enthusiasm and it was an evening to remember.

The hospital is committed to the dissemination of knowledge, and there were many CME programs conducted by the team. Our doctors delivered medical lectures for the benefit of general practitioners and specialists. FUSAI, in association with Royal Care Hospital, conducted the first Indian international conference on focused ultrasound, which was attended by international and national faculty.

ICU update, ICU survivors meet, NAPCON 2024, Chronic lung aspergillosis workshop, etc., were other programs conducted by the hospital to showcase the equipment, knowledge,e and treatment prowess that our hospital possesses in making the lives of our patients better. We also conducted multiple health camps at other industries.

The hospital, in association with Rotary Club Coimbatore West, initiated the cervical cancer vaccination project, which was received by the public with great enthusiasm. The chairman also announced multiple schemes and offers in delivery packages, investigation, etc., to benefit the middle-income families.

We congratulate Dr. Kalyanakumari on the successful completion of 50 Robotic surgery cases. We welcome the new team of consultants who have joined the ever-growing Royal Care Hospital medical fraternity and wish them success in their endeavors. In this volume, we have articles on liver transplant, interventional radiology, Pediatric necrotizing pneumonia, Renal failure, and malignant brain tumor surgery.



INDIA'S FIRST INTERNATIONAL CONFERENCE ON FOCUSED ULTRASOUND – FIICU 2025

Royal Care Super Speciality Hospital, in association with *Focused Ultrasound Association of India (FUSAI), successfully organized the *First Indian International Conference on Focused Ultrasound (FIICU)* recently in Coimbatore.
The conference featured renowned international and national speakers, engaging debates, didactic lectures, panel discussions, and live demonstrations* on the latest advancements in Focused Ultrasound technology.

Inauguration & Key Highlights :
The conference was inaugurated by Dr. K. Madeswaran, Director, Focused Ultrasound Association of India & Chairman and Managing Director, Royal Care Super Speciality Hospital.

Esteemed International Faculties:
Dr. Jin Woo Chang – Korea University, Seoul, Korea
Prof. Dipankar Nandi – Charing Cross Hospital & Imperial College, London
Dr. Roland Dominic G. Jamora – University of the Philippines Manila
Dr. Raul Martinez Fernandes – HM CINAc, Madrid, Spain

Alongside, distinguished Indian faculty members Dr. N. Senthilkumar, Dr. Raguraj Prakash, Dr. K. Vijayan, Dr. V. Arulselvan, and others contributed their expertise.

Live MRgFUS Demonstrations and insightful panel discussions provided a hands-on experience of cutting-edge Focused Ultrasound applications.

With over 200 delegates from across the nation, FIICU 2025 marked a major milestone in revolutionizing non-invasive medical treatments.

A special thanks to all the speakers, participants, and organizers for making this event a grand success!

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MRGFUS FOR PARKINSON'S DISEASE AND ESSENTIAL TREMORS

ROYAL CARE HOSPITAL IS ONE OF THE TOP 3 MRgFUS PERFORMING HOSPITALS IN THE WORLD

ONLY HOSPITAL IN INDIAN SUBCONTINENT TO HAVE KNIFELESS BRAIN SURGERY

- **200 + Carotid endarterectomy**
- **Comprehensive Centre for Poly Trauma, Head Injury and Stroke**
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160+

ROYAL CARE MRgFUS team have successfully performed over 160 procedures in a record time with the best patient outcomes.

EVERY PATIENT MATTERS

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Leading Exablate Neuro Treatment Provider in Asia Growth Market Region 2023

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Chairman and Managing Director
Consultant Neuro & Spine Surgeon


Dr.P.R.Rajkumar
Consultant Neuro & Spine Surgeon


Dr.Raguraja Prakash
Consultant Neuro Surgeon


Dr.R.Senthil Kumar
Consultant Neuro Surgeon


Dr.K.Vijayan
Consultant Neurologist & Neuro Sonologist


Dr.Arul Selvan
Consultant Neurologist


Dr. C. Kanagaraju
Consultant Neurologist

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E-Mail : contact@royalcarehospitals.in

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Royal Care Super Speciality Hospital

Surgeon of Excellence - Department of Neuro Surgery

H-2022-0901


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Accredited: October 2024-2027

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Chief Executive Officer

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Neil E. Hutcher, MD, FACS
Chief Medical Officer

Dr. K. Madeswaran M.Ch.,
Chairman and Managing Director
Consultant Neuro & Spine Surgeon

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Surgical Review Corporation - USA

Accredited Royal Care Hospitals a Center of Excellence in Neurosurgery

Dr. K. Madeswaran - Certified a Master Surgeon in Neuro Surgery in the Country

Dr. K. RagurajaPrakash - Surgeon of Excellence in Neuro Surgery

Dr. R. SenthilKumar - Surgeon of Excellence in Neuro Surgery

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RCH ICU UPDATE 2024- ROYAL CARE

Institute of Critical Care Medicine at Royal Care Super Speciality Hospital, conducted the Annual CME "RCH ICU UPDATE 2024 WITH THEME AS - OBSTETRIC CRITICAL CARE"- A two-day event with Workshop on day 1 and CME on day2 successfully this year, on the 25th and 26th of May 2024.

We have been conducting theme-based CME for the past 15 years, which is widely appreciated and well attended by critical care practitioners and trainees across specialities. We are passionate about sharing knowledge and skills across the region to enhance the continuum of care in critically ill patients. We as a team take pride in delivering yet another successful, exciting scientific feast this year.

The CME theme for this year's ICU update was "OBSTETRIC CRITICAL CARE". An overwhelming response from the medical fraternity to the CME event was evident, with more than 500 delegates attending the event.

The workshop on Day 1 included three critical care stations and three obstetric stations along with Mega Code simulation. Participants had hands-on practice and had an opportunity to enhance their resuscitation skills.

CME event on Day 2 included didactic lectures, interesting case discussions, panel discussions, and interactive question-answer sessions compiled thoughtfully to cater to the needs of practicing Intensivists, obstetricians, emergency physicians, anaesthetists, internal medicine specialists, surgeons, postgraduates, and paramedics.

CME INAUGURATION:

The CME event was inaugurated by the Chief Guest Prof. Dr. A. Nirmala, Dean, Coimbatore Medical College Hospital, in the presence of Dr. K. Madeswaran, Chairman of Royal Care Super Speciality Hospitals Pvt. Ltd. along with dignitaries, Dr. V.P. Paily, professor of Obstetrics and Gynaecology, Critical care stalwart Dr. Ram E. Rajagopalan and Dr.M.N.Sivakumar, Head of the Department – Institute of Critical Care Medicine. The lamp lighting ceremony was auspiciously conducted. The presidential address was delivered by Dr. K. Madeswaran followed by the Chief Guest Address by Prof. A. Nirmala Madam. Felicitation addresses by Prof. Dr. V.P.Paily and Dr. Ram E Rajagopalan graced the occasion.

AWARD CEREMONY:

The inaugural event housed the awarding ceremony as well. Our IDCCM- Indian Diploma in Critical Care Medicine, a one-year fellowship program conducted by the Indian Society of Critical Care Medicine, passed out candidates were awarded with certificates of merit. Our IDCCN- Indian Diploma in Critical Care Nursing, passed out candidates were awarded with certificates of merit. FNCC- Fellowship in Neuro Critical Care, one year fellowship conducted by the Society of Neuro Critical Care (SNCC) India, endorsed by ISCCM, passed out candidates were also felicitated during the ceremony.

IDCCM Graduates	IDCCN Graduates	FNCC Graduates
Dr. Abinaya Rathinavel	Mrs. R. Amsavalli	Dr. Nandakumar. P
Dr. Arun Chakravarthy Periyasamy	Mrs. B. Banupriya	Dr. Selvakumar. M
Dr. C. Mohan	Mr. D. Jacob Franklin	Dr. Senthilnathan. T.A
Dr. Shajitha Begum Naina	Ms. Jothimeena	Dr. Vivekananthan. P
Dr. Nithya Kannappan	Ms. R. Malathi	
Dr. K. Saranya Raj	Ms. P. Ramya	
Dr. Sivaram. R	Ms. Soundharya	
	Ms. Varsha	

KEY NOTE LECTURE:

The Keynote Lecture by Dr. V.P. Paily on "Why do mothers die- What have we learned over the years" was very well received by the delegates. Dr. V.P.Paily shared his knowledge and wider experience gained from his exemplary work on maternal death audit in Kerala. The keynote session was moderated by Dr. R. Manonmani, Professor and Head of the Department of OG, Coimbatore Medical College, and Dr. S. Kalyanakumari, Consultant Gynaecologist, Infertility specialist, Advanced Laparoscopic and Robotic Surgeon, Royal Care Hospitals, Coimbatore.

FACULTIES:

Stalwarts in the field of Critical Care Medicine, namely Dr. Ram E Rajagopalan, Head of the Department of Critical Care Services at Sri Ramachandra Medical College Hospital, Chennai, Dr. Srinivas Samavedam, Chief Critical Care Specialist at Ramdev Rao Hospital, Hyderabad, Dr. Pradeep Rangappa, Senior Consultant Intensivist, Manipal Hospitals, Bangalore and other eminent speakers and Moderators including national Faculties of eminence Dr. Tarakeswari, Head of the Department of Obstetric Medicine, Fernandez Hospital, Hyderabad, Dr. Uma Ram, Director and Lead Consultant in OG, Seethapathy Clinic and Hospital, Chennai, Dr. Sumana Manohar, Senior Consultant in OG, Apollo Hospitals, Chennai, Dr. Senthur Nambi, Senior Consultant, Infectious Diseases, Apollo Hospitals, Chennai, Dr. Chaitanya JSK, Head of the Department, Critical Care Medicine, KIMS Hospitals, Hyderabad, were sharing their expertise, delivering excellent quality evidence for day to day practice. The well-chosen topics were appreciated by the mix of audiences including paramedical staff and medical professionals from across the specialties.

WORKSHOP AND CME TOPICS:

The workshop included three critical care stations on the Resuscitation of pregnant women, oxygen therapy, airway, ventilation, and hemorrhagic shock management. Three obstetric stations were on obstetric haemorrhage, resuscitative hysterotomy, and eclampsia drill. Obstetric Mega Code simulation was a treat to learn the principles of managing maternal cardiac arrest.

CME topics included clinical implications of anatomical and physiological changes in pregnancy, triaging and initial assessment of critically ill obstetric patients, their transfer, and

maternal cardiac arrest. Session II covered topics on hypertensive emergencies, peripartum cardiomyopathy, and embolic catastrophes including amniotic and pulmonary embolism. Session III was a lively panel discussion on postpartum haemorrhage emphasizing the need for collaborative teamwork between obstetric, critical care, and interventional radiology teams. Session IV focused on sepsis and tropical diseases during pregnancy. A case scenario-based learning session on "how to minimize and deal with medico-legal issues related to obstetric critical care" emphasized documentation and communication skills in day-to-day practice. Session V dealt with liver disease, trauma, and respiratory failure in pregnancy which was very well received by the delegates with good interaction during question and answer sessions. The comprehensive coverage of all vital topics enthralled the audience evident from their feedback.

The CME event was approved by the Tamil Nadu Medical Council with 4.0 Credit points aptly for this two-day programme.

Version. 2. 16-07-2024
Version.1. 28-05-2024







ICU Survivors Meet 2024

மீண்டு வந்தார்கள் !!! மீண்டும் வந்தார்கள் !!!

The programme "ICU Survivors Meet 2024" captioned " **மீண்டு வந்தார்கள், மீண்டும் வந்தார்கள்**" was conducted by the Institute of Critical Care Medicine, Royal Care Super Specialty Hospital, Coimbatore, on 25th of May, 2024, at Le Meridian, Coimbatore. This unique meet was envisaged by Dr. M.N.Sivakumar, to emphasize that critical illness is not necessarily the end of life and that many patients have rallied to survive the ordeal with ongoing treatment and family support, and they have successfully returned back to their routines of life.

The chief guest for the programme was Dr. S. Raja Sabapathy, Chairman, Division of Plastic Surgery, Hand, Reconstructive Microsurgery and Burns, Ganga Medical Centre & Hospital Pvt. Ltd, Coimbatore. Guest of Honour for the event was Thiru M. Krishnan, Chairman & Managing Director, Sri Krishna Sweets Pvt.Ltd, Coimbatore. Dr. K.Madeswaran, Chairman and Managing Director, Royal Care Super Specialty Hospital, Coimbatore, presided over the function.

Chief Guest, Dr. S. Raja Sabapathy, highlighted the services of the critical care unit and multi-disciplinary teams' input in ensuring that critically ill patients survive despite all odds. He explained how well the discipline of critical care has evolved to greater heights over the last two decades.

Guest of Honour, Thiru M. Krishnan, impressed upon the fact that the family of the critically ill patient plays a key role in their recovery. He emphasized the need for trust and firm belief among patient family in the medical fraternity that they will do the best for their patients.

Chairman of Royal Care Super Specialty Hospital, Dr. K. Madeswaran, detailed the excellent infrastructure that is available at the Institute of Critical Care Medicine, Royal Care Hospitals, and the team of Critical Care personal delivering world-class patient care which is unparalleled. He stressed the fact that the nature of critical illness is evolving and the severity of the illness is far greater than before. This paradigm shift needed comprehensive multi-specialty integrated care, coordinated by an efficient critical care team. This has effectively been delivered at Royal Care Hospitals, which is evident by severely ill patients getting back to their routines amazingly well.

Above all, the living examples, the patients themselves, who had undergone the treatment for their critical illness, were there at the meeting, to tell their stories. It was just apt for them to come over, meet each other and their treating medical teams once again, to tell the outer world, that there is truly a life after critical illness. Many such stories impressed upon the fact that the families were reassured by the empathetic, skillful critical care team, while their beloved family member was critically ill. It was a unique meet indeed. The message was loud and clear: Critically ill patient can come back to their routines with comprehensive, empathetic, dedicated critical care services.

The event was well attended by more than 400 dignitaries including ICU survivors, ICU survivors' families, healthcare professionals, and press personals.

SODIUM FLUORESCEIN GUIDED RESECTION OF MALIGNANT BRAIN TUMORS

Dr. K. Madeswaran
M.Ch (Neuro Surg).,
Chairman, Consultant Neuro & Spine Surgeon

Dr. P. R. Rajkumar
MS, M.Ch (Neurosurgery).,
Consultant Neuro & Spine Surgeon

Dr. K. Raguraja Prakash
MRCS (UK), DNB (Surgery), FMAS, CNMT (USA), M.Ch (Neuro).,
ellow in Spine / Neuroendoscopy.,
Consultant Neuro Surgeon

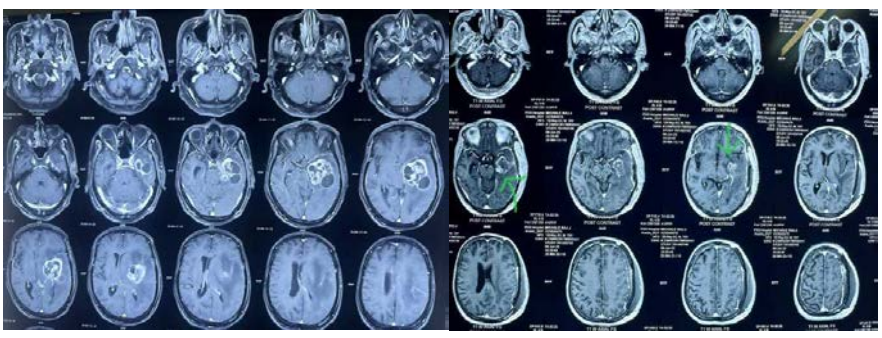
Dr. R. Senthil Kumar
MS, M.Ch (Neuro), DNB, MNAMS, FNS (Japan).,
Consultant Neuro Surgeon

Objectives : To study the effectiveness of Sodium Fluorescein dye induced fluorescence of Malignant Brain tumors in the extent of resection of the tumour.

Background: Malignant brain tumors are the commonest intracranial tumours includes Primary and Secondary(metastasis). Surgery is the first modality of treatment. Extent of resection and Maximal safe resection are important predictors of overall survival, progression free survival and neurological outcome.

Methods: Selection of cases - based on high grade malignancy features in MRI Brain Plain &Contrast study, Spectroscopy and age above 18 yrs. Total no of surgeries – 65, Period from August 2016 to May -2023.Fluorescein Sodium dye 3-5mg/kg IV, 30-45 mts before craniotomy was given and fluorescence of the tumor was upto 4hrs. Under Pentero 900 microscope with yellow 560 filter, fluorescent tumor resection was done. Pre operative and Post operative tumor volume calculated using contrast MRI brain T1weighted images. Post operative MRI is usually done at 48 to 72hrs after micro neurosurgical resection of tumors.

Results: Extent of resection varies from 78% to 96%.Histo Pathological Report - Grade IV Glioma - 42 cases,Grade III Glioma- 6 cases, Metastasis – 17 cases

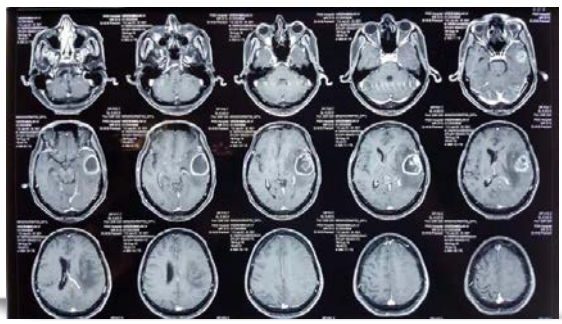
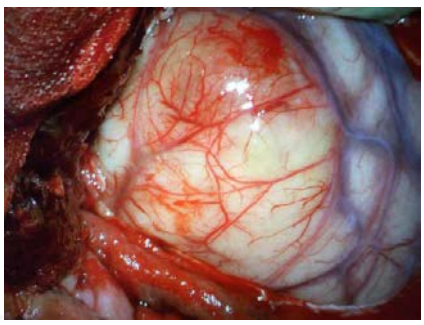
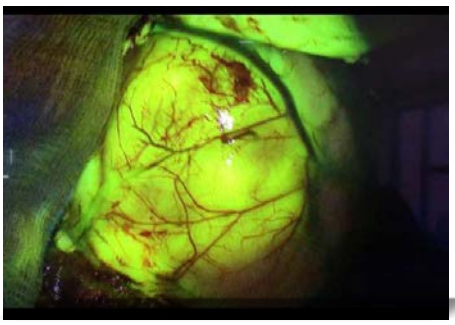
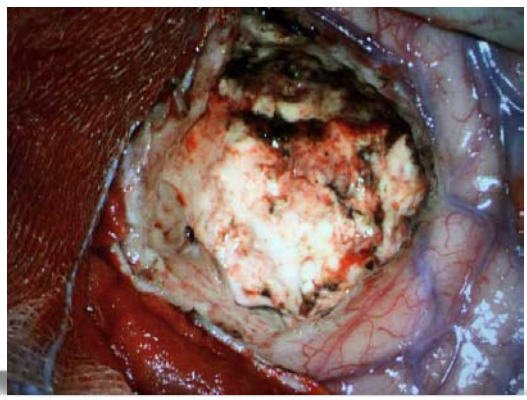
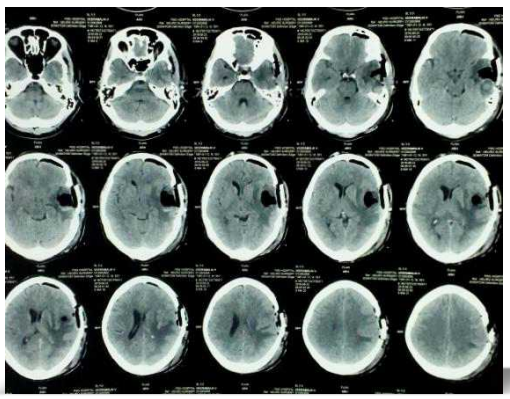


70 y/M headache,seizure
EOR 96%

S.No	Age and sex	EOR
59	64/M	81.4%
60	70/M	96%
61	54/M	90.5%
62	74/F	87.7%
63	61/M	92.6%
64	68/F	91.4%
65	54/M	90.4%

5-ALA
Very costly
Limited availability
Concurrent phototoxic drugs to be avoided
Isolated room for 24hrs shielded from direct sunlight

Fluorescein Na –Yellow 560
Cost effective
No severe adverse effects
Excreted rapidly
Y560 filter provides continuous dissection,resection,and coagulation..without switching of light source from one to another

Gross total resection (GTR) was defined as no residual tumor is seen on postoperative MRI, T1 contrast Near-total resection (NTR) was defined as <5% of the tumor volume compared with the preoperative MRI, Subtotal resection was defined as 5-10% residual tumor, and Partial resection was defined as more than 10% residual tumor .Tumor volume (V) was calculated by the formula V = A x B x C/ 2 which was determined by measuring the maximal length of axial (A), sagittal (B), and coronal (C) scans of preoperative and postoperative MRI T1 contrast

Conclusions:

Sodium Fluorescein can be used as a viable alternative to 5-ALA for intraoperative fluorescence guidance in adult malignant brain tumor surgery. Comparative, prospective, and randomized studies are much needed. 5-ALA fluorescence-guided surgery has shortcomings such as drug's phototoxicity, extortionate price, the need to switch between blue light (for identification of fluorescent tissue) and white light (to delineate the anatomy of the nonfluorescent tissue and vessels for coagulation) frequently during surgery.

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GLIMPSE

Royal Care Institute of Nursing 2nd Batch Inauguration 05.11.2024

Royal Care Institute of Nursing Anti_Ragging Program 09.11.2024

Napcon 2024 Ebus & Peripheral Lesion Workshop 21.11.2024

International day of persons with disabilities 2024 High Five Campaign 03.12.2024

Radio Citys Kovai City Icon Award to Royal Care 13.12.2024

Workshop on CHRONIC LUNG ASPERGILLOSIS 15th December 2024

Times Business Awards Coimbatore 2024 By Thiru K. Annamalai Former Ips Officer & Tamil Nadu State President Of Bjp On 18.12.2024

Cervical Cancer Vaccination Project Inauguration 19.12.2024

Trailblazers of Kongu Award 21.12.2024 by Thiru V Senthilbalaji Hon'ble Minister for Electricity, Prohibition & Excise Govt. of Tamilnadu

Eye Camp at Craftsman Automation Factory CBE on 07.01.2025

Congrats

Dr. S. Kalyana Kumari

MD (OG), Dip, Gyn. Endoscopy (Germany), Master's degree in Biotechnology of Human Assisted, Reproduction & Embroyology (Spain) MBA.,

Consultant Gynaecologist , Infertility Specialist, Advanced Laparoscopic and Robotic Surgeon

Completion of 50 Robotic Procedures - Milestone Achievement by Dr. Kalyana Kumari at Royalcare Hospital on 25-09-2024 in the presence of Chairman Dr. K. Madeswaran

WIDE NECKED BIFURCATION ANEURYSMS

Dr. P. Sampathkumar
MD, DNB (Radiology), EBIR,
PDCC (Cardiovascular Imaging and Vascular Intervention).,
Consultant Interventional Radiologist

Dr. Hariharaprakash
MD, DNB, EBIR, EDIR, DICR,
DHHM, DMLS, MBA.,
Consultant Interventional Radiologist

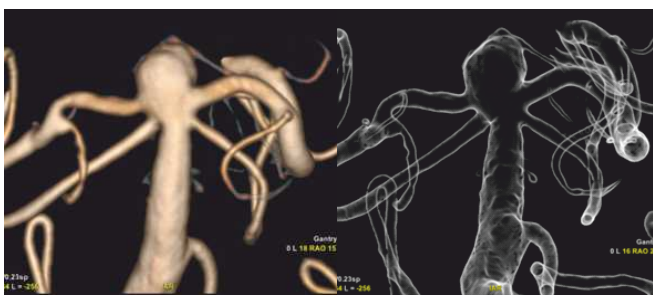
Web device and diagrammatic representation of WEB device in Bifurcation aneurysm

Wide-necked bifurcation aneurysms, particularly when incorporating the major branching vessels, are technically challenging to treat. The treatment goal in this scenario is to exclude the aneurysm from circulation to prevent rupture and also to preserve the major incorporated branches to prevent ischemic complications. This case report describes one such patient with a basilar apex wide-necked aneurysm incorporating bilateral posterior cerebral arteries (PCA) treated by endovascular technique using intra saccular device called WEB (Woven Endo Bridge).

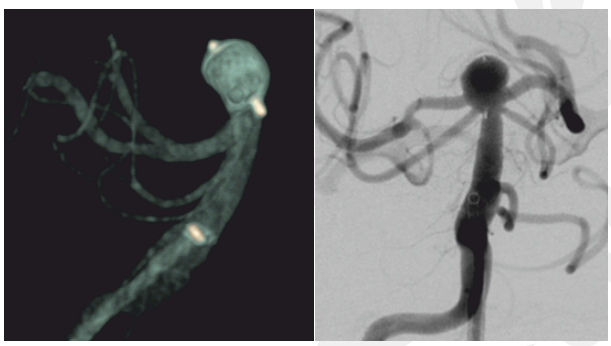
64-year-old female patient with hypertension and past history of aneurysm clipping for ruptured left MCA bifurcation aneurysm presented to us with incidentally detected basilar apex aneurysm. She was asymptomatic without any residual neurological deficits at presentation. A diagnostic angiogram confirmed a saccular wide-necked aneurysm incorporating bilateral posterior cerebral arteries. Basilar apex aneurysm was cannulated and WEB SL device 9 x 4mm deployed. Post-deployment angiograms revealed stasis in the aneurysm sac and normal filling of the bilateral posterior cerebral arteries.

WEB is an FDA-approved Nitinol Mesh self-expanding device for treating ruptured and Unruptured wide-necked bifurcation aneurysms. On deployment, this device blossoms and fills the aneurysm sac thereby promoting thrombosis and sealing the neck of the aneurysm.

The advantage of the WEB treatment is that it may not require continuation of the dual antiplatelet therapy, unlike stent-assisted coiling. Bifurcation wide-necked aneurysms from 3mm to 11mm in diameter are amenable to treatment by this device.



3D Rotational angiography images showing wide necked Basilar apex aneurysm incorporating the origins of bilateral posterior cerebral arteries



Post treatment 3D and 2D angiogram images showing WEB device within the aneurysm sac and preserved flow in bilateral posterior cerebral arteries

LIFE-SAVING DECEASED DONOR LIVER TRANSPLANT FOR CRYPTOGENIC LIVER FAILURE IN A YOUNG MALE

Dr. S. Soundappan
MBBS(MMC), MS(IKEM, Mum), MRCS(UK), DNB - Surg Gastro (AIG, Hyd), FALS-Robotic, Fellowship-Hepatobiliary Surgery(AIG,Hyd), Fellowship-Liver transplant(CLBS,Delhi).,
Consultant - Gastro, Minimally invasive, and Liver transplantation surgery

Abstract

We present the case of a 35-year-old male with cryptogenic chronic liver failure who successfully underwent a deceased donor liver transplant. Despite optimal medical management, the patient's liver function continued to decline, necessitating a life-saving transplant. This case highlights the importance of early referral, multidisciplinary pre-transplant optimization, and the role of a robust deceased donor program.

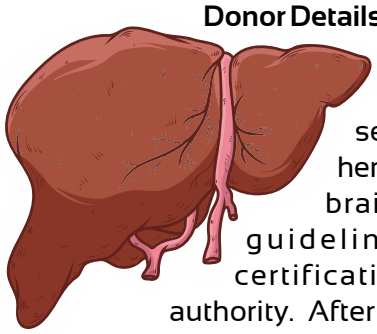
Patient Background and Presentation

The patient, a 35-year-old male, B positive blood group with no significant past medical history, presented with abdominal distension, weakness, loss of appetite, and dark urine. Occasional alcohol use and a non-contributory family history suggested no obvious etiology for his liver disease. Diagnostic workup revealed Child B cirrhosis with a Model for End-Stage Liver Disease (MELD) score of 19, accompanied by ascites. Comprehensive testing (autoimmune, metabolic, and viral panels) was negative, leading to a diagnosis of cryptogenic liver failure. He was managed conservatively with diuretics, liver-protective agents, nutritional support, and variceal banding but experienced progressive liver deterioration, ultimately requiring liver transplantation.

Pre-Transplant Course and Selection for Transplantation

Despite intensive medical management, the patient's condition worsened, marked by escalating jaundice, coagulopathy (INR 2.6), refractory ascites, spontaneous bacterial peritonitis, Grade 3 hepatic encephalopathy, and acute kidney injury. Evaluation for a live donor was conducted, but due to the size, quality, and blood group incompatibility of potential family donors, he was listed for a deceased donor transplant through the government's TRANSTAN registry. In deceased donor liver transplantation, TRANSTAN allows only same group transplantation whereas in live donor liver transplantation both compatible and incompatible liver transplantation is possible. Following stabilization, he remained in critical condition, awaiting a compatible donor.

Donor Details and Brain Death Certification



The donor, a 31-year-old male with no comorbidities, suffered a severe brain injury with brainstem herniation. Following family consent, brain death was confirmed using guideline-based apnea tests, with certification issued by the designated authority. After sensitive family counseling, the donor's family agreed to donate all viable organs, including the liver and kidneys.

Surgical Procedure

The transplant was coordinated to minimize ischemia time and maintain graft quality. Donor organ retrieval was conducted in three phases: cold perfusion preparation, perfusion phase, and cold dissection phase, with final quality checks ensuring suitability for transplantation. Mild fatty infiltration of the liver was noted but deemed acceptable.

Recipient hepatectomy presented challenges due to adhesions from prior infections. A piggyback technique was employed to maintain optimal outflow. Reperfusion was complicated by transient hypotension, managed effectively with fluids and

vasopressors. Anastomosis of the portal vein, hepatic artery, and bile duct completed the procedure. The graft demonstrated satisfactory function, and Doppler scans confirmed vascular patency.

Fig 1: Cirrhotic liver

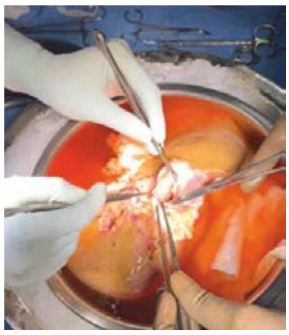


Fig 2: Back bench preparation of retrieved deceased donor liver

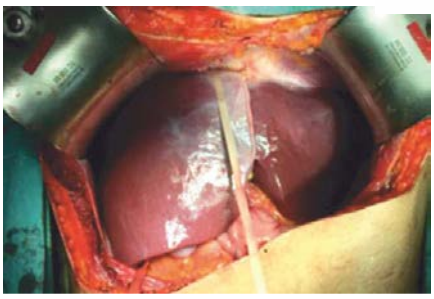


Fig 4: Reperfused Liver after transplanation

Postoperative Course

The patient was extubated on Postoperative Day (POD) 1, with excellent inflow and outflow vessel patency. He was managed on a tapering immunosuppressive regimen alongside antibiotics, antifungals, and antivirals. A temporary elevation in liver enzymes, likely due to reperfusion injury, was managed with N-acetylcysteine and hepatoprotective drugs. The peak SGOT/SGPT were 7600/4100, INR was 3.4, lactate was 3.1 and Total bilirubin were 4.3 on POD 1. From subsequent postoperative days the values showed a steady decline which suggested graft recovery. With steady progress, he resumed an oral diet, physiotherapy, and mobilization. Discharge was achieved on POD 11 with robust graft function.

Discussion and Clinical Insights

This case underscores the importance of comprehensive management for end-stage liver disease, especially in cryptogenic cases where the

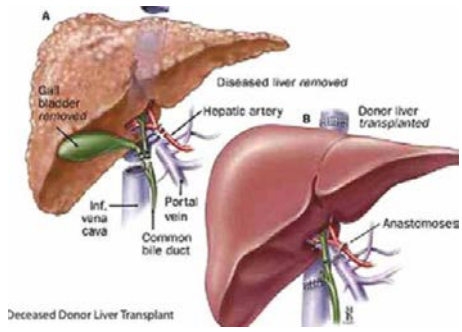


Fig 3: Pictorial representation of Deceased donor liver transplantation (removal of cirrhotic liver and implantation of deceased donor liver)

etiology remains unclear. Early referral, rigorous optimization, and timely advice on liver transplant assessment can greatly influence outcomes in such cases.

Our Unique Approach to Deceased Donor Liver Transplantation

Our center prioritizes deceased donor liver transplantation over live donation, emphasizing social outreach to promote organ donation from brain-dead patients. This model aligns with practices in developed nations, enhancing organ availability and ensuring ethical organ utilization.

Conclusion

Deceased donor liver transplantation can be a life-saving intervention for patients with advanced liver disease unresponsive to medical management. This case exemplifies the value of efficient donor management, streamlined surgical coordination, and personalized patient care. As the field of liver transplantation advances, a multidisciplinary approach and robust deceased donor program remain key to improving patient outcomes.

Key Points for Referring Physicians

1. Early Diagnosis & Referral: Timely transplant evaluation is essential.
2. Deceased Donor Program: Utilize deceased donors as a primary option, optimizing live donation only when necessary.
3. Patient and Family Counseling: Compassionate guidance in end-of-life organ donation supports patient and public health needs.

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NECROTISING PNEUMONIA IN A CHILD

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Head - Institute of Critical Care Medicine

A 4-year-old, Master S was referred from the peripheral hospital for fever, abdominal distension, and vomiting. He was treated as c/o UTI with cefotaxime and amikacin. The child was developmentally normal and immunized appropriately for his age.

The child on examination was febrile, toxic, and sick-looking. He was tachypnoeic, and tachycardic and had a temp of 104 F. Systemic examination showed reduced air entry on the left side of the lung and had severe abdominal distension with sluggish bowel sounds. He was hypoxic with SpO_2 Provisionally diagnosed as sepsis with pneumonia / ? intestinal obstruction? cause.

Fig 1 (Day 1)

The child was stabilized, fluids started, and started of broad-spectrum antibiotics(meropenem and vancomycin) after taking a blood culture.NIV was initiated. His investigations revealed leucopenia (WBC-2000) and elevated CRP.CXR S/O left-sided lobar consolidation with dilated bowel loops. CT scan performed clinched the diagnosis - Necrotising pneumonia affecting the left lower lobe, the lower part of the upper lobe of the lung, and pleural and pericardial effusion with toxic ileus (Fig 1).

The child after 48 hours, continued to be febrile and had persistent metabolic acidosis, hence planned for thoracoscopic decortication of affected lung tissue through VATS (Fig 2).

Intraoperatively, necrotic tissue was laid open, through debridement, done and around 60-70 ml of pus was drained. The child was shifted to ICU with chest drain and continued on NIV support. Meropenam and vancomycin were continued postoperatively. Blood culture and pus culture were sterile, Gene Xpert was also negative.

The child continued to have high-grade fever spikes postoperatively even after 72 hours. Since the inflammatory markers were on a rising trend again, CT was repeated (Fig 3). Repeat CT thorax showed necrotizing cavitating areas possibly lung abscess along with areas of gangrene. Hence thoracotomy was planned again to contain the infection since the child continued to be hypoxic.

Through left lower thoracotomy, complete debridement and removal of left lung necrotic tissues were done and pus was drained.

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After repeating thoracotomy, the child became afebrile after 3 days, and hemodynamics stabilized. The child was then weaned off from NIV gradually shifted to room air and started on oral feeds. The child finally became afebrile after 3 weeks after the disease onset (Fig 4).

The child was doing well in further follow-ups.

NECROTISING PNEUMONIA IN CHILDREN :

Necrotizing pneumonia is a rare but serious complication of community-acquired pneumonia with a very high mortality of>50%. The usual organisms are staphylococcus aureus, streptococcus pneumonia, mycoplasma, etc. Some viruses like influenza, parainfluenza, and fungal organisms could also cause this serious infection. The disease usually has a stormy course even in healthy immunocompetent children.

Complications include pyothorax, pyopneumothorax, pleural and pericardial effusion, pleural fistulas, septicemia, shock, etc. If left untreated disease may progress to respiratory failure and death.

Malnutrition, obesity, and undiagnosed immunodeficiency states are risk factors in young children. Management includes the selection of broad-spectrum antibiotics with anti-staphylococcal and anti-pneumococcal activity. Macrolides can be added in cases of documented co-infection with mycoplasma as well. Fluid resuscitation, early recognition of septic shock, and providing appropriate respiratory support modalities aid in good recovery.

Along with CXR, CT imaging aids in clearcut diagnosis. Bronchoscopy with BAL is another invasive modality that helps in finding the etiological agent.

In sick children, surgical debridement of necrotized/gangrenous lung tissue through VATS /mini-thoracotomy is a life-saving procedure in cases of progressive parenchymal necrosis. Early diagnosis is crucial in reducing mortality in sick children.

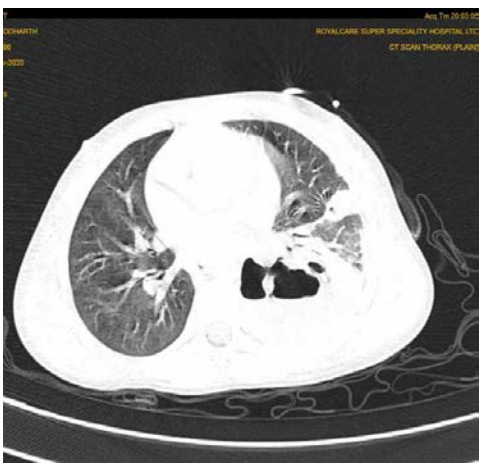

Fig 3 (Repeat CT Thorax)

Fig 4 (pod 2 after thoracotomy and debridement)

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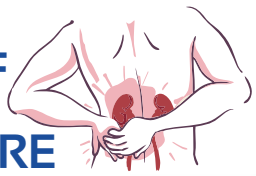
AN UNUSUAL CASE OF RENAL FAILURE



Dr. M. Gobikrishnan
MD(GEN MED), DM(NEPH),
DrNB(NEPH), ESE NEPHROLOGY (UK).,
Consultant Nephrologist

Dr. G. Nivedita
MBBS, MS, Ophthalmology.,
Consultant Ophthalmologist

39 year old male was detected to have deranged Renal function creatinine of 1.4 while doing routine blood investigation on 2023.No further evaluation was done.Patient presented to our hospital on march 2024 with complaints of swelling of legs-on and off for past 6 months,generalized fatigue and tiredness for last 1 month, passing frothy urine for 1 month, Pain and paresthesia of finger and thighs for 1 year.On examination BP-150/80 mmhg,PR-78/min, Pallor +,No pedal edema.CVS-S1,S2 was normal, RS-B/L NVBS present,P/A-Soft,non tender,CNS-No focal neurological deficit.

Laboratory findings

Hb-9.7 gm/dl	Urine R/M-Alb2+,RBC2,Cast-nil
Total count-7400(N51L30E12) cells / cumm	Urine PCR-2.6
Platelet count-1.55 lakh	Total protein/albumin-7.4/4.0 mg/dl
Urea-98mg/dl	Calcium/Phosphorus-9.1/4.8 mg/dL
Creatinine-7.2 mg/dl	
Serum sodium, potassium,bicarbonate-140.5/5.5/20.7 mEq/L	

- USG-Rt-8.3 cm Lt-8.4cm,Increased cortical echoes CMD lost-B/L medical renal disease
- ECHO- Conc LVH present,Normal LV function
- Ocular Examination suggestive of cornea verticillata in both eyes
- Hence suspected Fabrys disease. Genetic workup (Whole Exome Sequencing) done which shows likely pathogenic mutation in GLA gene in exon 7 in X chromosome
- Patient was initiated on hemodialysis via AVF in view of uremic symptoms and currently he is undergoing 2/wk MHD.

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Fabry Disease

Fabry disease is caused by hereditary deficiency of the enzyme α galactosidase A (α-Gal A), resulting in the intracellular accumulation of neutral glycosphingolipids.

It is an X-linked disorder caused by pathogenic variants in the alpha-galactosidase A (alpha-Gal A; galactosidase alpha [GLA]) gene mapped to the long arm (Xq22.1 region) of the X chromosome.

It is a multi system disorder, with prominent and potentially devastating involvement of the kidneys, heart, and peripheral and central nervous systems.

When to suspect Fabry disease?

An evaluation for Fabry disease should be performed in males with at least one of the following clinical features suggestive of the diagnosis, particularly

1) Intermittent episodes of burning pain in the extremities (acroparesthesias)
2) Cutaneous vascular lesions (angiokeratomas)
3) Characteristic corneal cornea verticillata
4) Left ventricular hypertrophy (LVH)/Arrhythmia of unknown etiology in young adults
5) Stroke of unknown etiology at any age
6) Chronic kidney disease (CKD) and/or proteinuria of unknown etiology

Diagnosis should be confirmed by demonstrating decreased (<25%) or absent α-Gal A activity in serum, leukocytes, cultured skin fibroblasts or tissue. Mutational analysis of the gene encoding alpha-Gal A, or galactosidase alpha (GLA) is the gold standard assay to confirm the diagnosis of Fabry disease.

Goals of therapy in Fabry disease are to slow down or prevent progression to irreversible tissue damage.Treatment generally consists of Fabry specific therapy (such as enzyme replacement therapy [ERT] or chaperone therapy (migalastat). All patients with Fabry disease should receive supportive care to manage the kidney, cardiac, neurologic, and other complications of disease.

VORTEX KERATOPATHY

DISEASE ENTITY:

Cornea verticillata (also called vortex keratopathy, whorl keratopathy, or Fleischer vortex) describes a whorl-like pattern of golden brown or grey opacities in the cornea.

ETIOLOGICAL ASSOCIATIONS:

Most commonly associated with Fabry's disease.

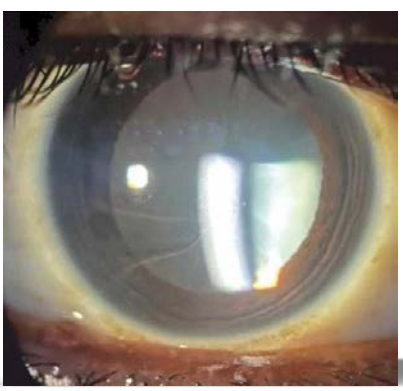
It can be caused by a variety of oral medications such as amiodarone, hydroxychloroquine, chloroquine, indomethacin, and phenothiazines.

PATHOPHYSIOLOGY:

The whorl-like pattern of cornea verticillata results from the centripetal migration of deposit-laden limbal stem cells as the corneal epithelium undergoes natural growth and repair.

The medications that produce cornea verticillata share cationic, amphiphilic properties that allow them to penetrate lysosomes in the basal epithelial layer of the cornea, where they bind to cellular lipids. These medication-lipid complexes are resistant to enzymatic degradation and accumulate as deposits in the cornea.

SIGNS:



Cornea Verticillatta in a Case of Fabry's Disease

The lesions appear in a vortex fashion, swirling out and sparing the corneal limbus.Most commonly occur in the inferior paracentral aspect of cornea. The colour ranges from white to brown and appear as non elevated lesions.

MANAGEMENT:

There is no recommended treatment for cornea verticillata. The deposits are visually insignificant, and resolve with treatment of systemic condition.

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Dr. Srujun Vadranapu MBBS, D Ortho, MS Ortho, FSHM, FOR, FASM, FSS.,

Consultant Orthopedic Surgeon Trauma, Arthroscopy and Arthroplasty

Completed his MBBS from Guntur Medical College, Guntur, Andhra Pradesh. Further he expertise with a Fellowship in Secondary Hospital Medicine and DOrtho and MS Ortho at Christian Medical College, Vellore. Additionally, he pursued a FOR_Fellowship in Orthopedic Rehabilitation at Medvarsity and an FASM_Fellowship in Arthroscopy and Sports Medicine at Ortho One Orthopedic Specialty Center, Coimbatore. He also achieved an FSS_Fellowship in Shoulder Surgery from Clinique Saint Hilaire, Rouen, France. Before joining Royal Care, Dr. Srujun Vadranapu served as an Orthopedic Surgeon at KG Hospital, Coimbatore.

Dr. S. Soundappan

MBBS(MMC), MS(IKEM, Mum), MRCS(UK), DNB - Surg Gastro (AIG, Hyd), FALS-Robotic, Fellowship-Hepatobiliary Surgery(AIG,Hyd), Fellowship-Liver transplant(CLBS,Delhi).,

Consultant - Gastro, Minimally invasive, and Liver transplantation surgery

Completed his MBBS at Madras Medical College (2005-2011) and earned his Masters in Surgery from King Edward Memorial Hospital, Mumbai (2012-2015). He served as a senior registrar and lecturer at the same institution (2015) and received additional training in laparoscopic surgery there. He pursued DNB Super Specialty training in Surgical Gastroenterology and GI Oncology at the Asian Institute of Gastroenterology, Hyderabad (2016-2018), followed by a fellowship in Hepatobiliary Surgery and a consultant position at AIG Hospital (2018-2019). He further specialized in Robotic Surgery with FALS in 2022 and completed a Fellowship in Liver Transplant and Minimally Invasive Liver Surgery at Max Saket, Delhi (2023). Before joining Royal Care Dr. S. Soundappan worked as a Consultant in GI, HPB, and Liver Transplant at GEM Hospital and Research Center, Coimbatore.

Dr.Srihari Rajkumar

MBBS, DNB.(Anesthesiology),Dr.N.B(Critical Care Medicine), IDCCM, EDIC.,

Consultant Intensivist

Completed his MBBS at Pondicherry Institute of Medical Sciences and pursued his D.N.B. in Anesthesiology at Dr. N.D. Jeyasekharan Hospital and Nursing Home, Nagercoil. He further specialized with an IDCCM from PSG Institute of Medical Sciences and Research and a D.N.B. in Critical Care Medicine from Baby Memorial Hospital, Kozhikode. He also holds the EDIC (European Diploma in Intensive Care Medicine). With extensive experience in a multidisciplinary closed ICU, he has expertise in Infectious Diseases, Trauma, Obstetric, Hematology, Gastrointestinal, Hepatobiliary, and Oncological Critical Care. He currently serves as a Consultant Intensivist at Royal Care.

Dr. M. Sivabalan MD (INT.MED), DNB (CARDIOLOGY), FICC, FESC, FSCAI.,

Consultant Interventional Cardiologist

Completed his MBBS from Sri Ramachandra Medical College and Research Institute, Chennai, and pursued his MD(INT.MED) from Madurai Medical College, Madurai. He achieved his DNB (Cardiology) from GKNM Hospital, Coimbatore. Prior to joining Royal Care, he served as a Consultant at Hindustan Hospital, Coimbatore.

Dr. P. R. Rajkumar MS, M.Ch (Neurosurgery)

Consultant Neuro & Spine Surgeon

Dr. P. R. Rajkumar is a highly experienced and respected Consultant Neuro & Spine Surgeon with over 23 years of expertise in the field of Neurosurgery. He completed his MBBS from Madurai Medical College in 1995, followed by an MS in General Surgery from Coimbatore Medical College in 1999. Subsequently obtained his MCh in Neurosurgery from Madurai Medical College in 2002.
Before joining Royal Care, Dr. Rajkumar held prestigious roles as the Medical Director, Professor, and Head of the Department of Neurosurgery at PSG Institute of Medical Sciences & Research and Hospitals in Coimbatore.

Dr. S. V. Sarvajith MD (DVL)

Consultant Dermatologist and Cosmetologist

Dr. S. V. Sarvajith completed his MBBS in 2019 and earned his MD in Dermatology, Venereology, and Leprosy (DVL) in 2023 from Coimbatore Medical College. His professional journey includes significant roles such as Medical Officer at GPHC Sethumadai, District Quality Medical Officer in Coimbatore, and Consultant Dermatologist at Prabhu Hospital in Pollachi between 2023 and 2024. Dr. Sarvajith has now joined Royal Care, where he continues to provide expert dermatological care.

Dr. Pradeep Palanivel MBBS, MD (Nuclear Medicine).,

Consultant Nuclear Medicine

Dr. Pradeep Palanivel completed his MBBS from Government Stanley Medical College, Chennai, in 2020. He then pursued and earned his MD in Nuclear Medicine from the All India Institute of Medical Sciences (AIIMS), Rishikesh, in 2023. Before joining Royal Care Hospitals, he was a Senior Resident at JIPMER.

Dr. C. Kanagaraju MD, DM (NEURO).,

Consultant Neurologist

Dr. Kanagaraju is a distinguished Senior Consultant Neurologist with extensive experience in neurology and medical education. He completed his MBBS from Govt. Thanjavur Medical College in 1980, followed by an MD in General Medicine from Govt. Stanley Medical College in 1990. He later pursued his DM in Neurology at Govt. Madras Medical College, earning his specialization in 2001. With a career spanning over two decades, Dr. Kanagaraju has served in various esteemed institutions, including Govt. Coimbatore Medical College, Karpagam Faculty of Medical Sciences, and Palakkad Institute of Medical Sciences. He has also contributed internationally as a Neurology Specialist at Govt. Central Hospital, ARAR, Saudi Arabia. He joined as a Consultant Neurologist at our Royal Care.

Dr. Karthik R MD, DNB, MRCP(UK), DM, DipRCPath(Haem).

Consultant Haematologist – Visiting

Dr. Karthik R is a highly skilled Consultant Haematologist with extensive expertise in haematology and haemato-oncology. He completed his MBBS from Thanjavur Medical College in 2008, followed by an MD in General Medicine from Government Medical College, Nagpur, in 2016. Further advancing his specialization, he pursued a Fellowship in Haemato-Oncology at Tata Memorial Hospital, Mumbai, and pursued a DM in Clinical Hematology from Christian Medical College, Vellore, in 2020.
Dr. Karthik holds multiple prestigious qualifications, including MRCP (UK), DNB (General Medicine), and DipRCPath (Haematology) from the Royal College of Pathologists, London. With over a decade of experience, he has established himself as a trusted expert in his field. He is currently serving as a Consultant Haematologist at Royal Care.

Dr. S. Sanjeevkumar MBBS, MD (Radiodiagnosis)

Consultant Radiologist

Dr. Sanjeevkumar is a dedicated Consultant Radiologist with expertise in advanced diagnostic imaging. He completed his MBBS from PSG Institute of Medical Sciences and Research, Coimbatore, in 2020, followed by an MD in Radiodiagnosis from the prestigious Barnard Institute of Radiology, Madras Medical College, Chennai, in 2025. Immediately after his specialization, he joined Royal Care Super Speciality Hospital as a Consultant Radiologist.

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