

# ಜ್ಞಾನವಾಹಿನಿ Jnana Vahini

Monthly Newsletter - Gokula Education Foundation (Medical)



Volume - 15 Issue - 7 July 2024

# A Landmark Collaboration Between Ramaiah Memorial Hospital & Mount Sinai Hospital





n a landmark collaboration, two prestigious healthcare institutions, Ramaiah Memorial Hospital (RMH) and Mount Sinai Hospital-New York, have joined forces to elevate patient care in India. This exciting partnership signifies a commitment to excellence, promising a future where #LifeGetsBetter.



In a groundbreaking move, Ramaiah Memorial Hospital (RMH), a leading multi-super-specialty quaternary care hospital in Bengaluru, India, has signed a historic agreement with the renowned Mount Sinai Health System based in New York. This exclusive partnership was officially announced on 12th July, 2024. This marks a new era in healthcare advancement, promising to elevate clinical excellence, patient care quality, research, innovation, and technology.

Chief Guest for the programme was Shri. Pralhad Joshi, Union Minister for Consumer Affairs, Food & Public Distribution, New & Renewable Energy, GOI and Shri. Dinesh Gundu Rao, Minister of Health & Family Welfare was the guest of honor.

Dr. M R Jayaram, Chairman, Gokula Education Foundation & Chancellor, RUAS, M R Sreenivasa Murthy, Chief Executive, Gokula Education Foundation (Medical), Dr. S. C. Nagendra Swamy, President, Ramaiah Memorial Hospital, Dr. Szabolcs Dorotovics, President, Mount Sinai International, Dr. David L. Reich, President, Mount Sinai Hospital and Mount Sinai Queens, Dr. Samin K Sharma Director, Mount Sinai, Cardiovascular Clinical Institute, Arthur A Gianelli and others were present.

This collaborative effort signifies a shared commitment in providing exceptional healthcare. By combining RMH's expertise with Mount Sinai's global reach and advanced practices, the partnership aims to redefine patient experiences.

Dr. M R Jayaram, Chairman, GEF & Chancellor, RUAS, speaking on the occasion said, 'At Ramaiah Memorial Hospital, we are excited to announce this significant collaboration with Mount Sinai in New York which is aimed to advance clinical excellence, to enhance patient care, safety, quality, to improve further medical innovation and technology, and



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# A Landmark in Healthcare Advancement and Education A New Era in Healthcare Collaboration

n July 12, 2024, a significant milestone was achieved in the field of healthcare with the historic collaboration between Ramaiah Memorial Hospital (RMH), Bengaluru, and Mount Sinai Hospital, New York. This partnership promises to revolutionize patient care, research, and medical education in India by integrating RMH's clinical expertise with Mount Sinai's advanced practices and global reach. The presence of distinguished guests, including Shri. Pralhad Joshi, Union Minister for Consumer Affairs, and Shri. Dinesh Gundu Rao, Minister of Health & Family Welfare, underscored the importance of this collaboration. Leaders from both institutions, including Dr. M R Jayaram, Chairman of Gokula Education Foundation, and Dr. Szabolcs Dorotovics, President of Mount Sinai International, highlighted their commitment to elevating healthcare standards through innovation and excellence.

Ramaiah Medical College and Hospital also inaugurated renovated facilities, including a new Dialysis Unit and ICU, enhancing the quality of patient care. These advancements reflect RMH's dedication to continuous improvement and investment in the latest medical technologies. The collaboration extends beyond clinical care to encompass significant strides in medical research and education. Notable events, such as the guest lecture on "Metabolic Dysfunction Associated Steatotic Liver Disease (MASLD)" and workshops on accessing national and global research grants, underscore the institutions' commitment to fostering a culture of academic excellence and innovation.

Ramaiah Memorial Hospital's proactive measures in combating the dengue fever surge in Karnataka demonstrate a robust public health response. Educational initiatives, such as the poster competition on International Day Against Drug Abuse, and the emphasis on preventive healthcare, highlight the hospital's comprehensive approach to community health. The celebration of World Environment Day with activities like campus bird watching and green initiatives by the Eco Club of Ramaiah Medical College showcases the institution's dedication to environmental stewardship and holistic education. These initiatives foster a sense of responsibility among students and staff, encouraging them to engage in sustainable practices.

The early onset of menarche in girls and its associated health risks have prompted RISA to focus on pediatric and adolescent health. The comprehensive editorial on this topic raises awareness about the physical and psychological impacts of early menarche, advocating for better health education and preventive measures. The recognition of faculty and students for their contributions to medical science, such as the 'Inspiring Intensives of India' award to Dr. Deepak T S and the achievements of postgraduate students in various competitions, underscores the institution's culture of excellence and recognition.





take the standard of the overall healthcare offerings to the next level."

M R Sreenivasa Murthy, Chief Executive, GEF (Medical), said, "Our commitment to clinical excellence is a proof to our continuous strive to improve and innovate. We invest in the latest technology and techniques to ensure that our patients have access to the most advanced treatments available, and we are constantly working to improve our processes and procedures to deliver better outcomes for our patients.'

Dr. S. C. Nagendra Swamy, President of Ramaiah Memorial Hospital, emphasized their commitment to clinical excellence and continuous improvement through a strategic collaboration with Mount Sinai Hospital New York. This partnership aims to enhance patient care, safety, and quality, and provide opportunities for medical research and learning through various collaborative initiatives.

Dr. Szabolcs Dorotovics, President, Mount Sinai International, said, "It is in the spirit of Kempe Gowda the founder of Bengaluru who has to be remembered for enabling the citizens of Bengaluru enhance their development and prosperity, that Mount Sinai and the Ramaiah Memorial Hospital

have now forged our long-term collaboration and partnership. Together, we seek to provide the citizens of Bengaluru, and the State of Karnataka, with the highest international standards of healthcare to enhance their wellness, and thereby, their prosperity."

Dr. David L. Reich, President Mount Sinai Hospital and Mount Sinai Queens, emphasized that "The pairing of Mount Sinai with the Ramaiah Memorial Hospital is an ideal partnership combining two leading institutions with long histories that are dedicated to medical education, clinical innovation, and an unwavering focus on providing world-class healthcare services to their patients."

This prestigious event was attended by all the faculty and staff members from the hospitals and college. The collaboration has inspired the doctors, fostering a renewed focus on advancements in their field.

Ramaiah Memorial Hospital and Mount Sinai look forward to a productive collaboration that will set new benchmarks in healthcare delivery and positively impact the lives of patients in India and in the sub-continent.



## Inauguration of Dialysis Unit, ICU & PAC's (Radiology) at RMCH



amaiah Medical College Hospital inaugurated the Dialysis Unit, ICU & PAC's (Radiology) for the patients for the better and hazel free treatment. This was inaugurated by Dr. M R Jayaram, Chairman, Gokula Education Foundation & Chancellor, RUAS, Dr. Bellur Prabhakar, Professor, Sr. Associate Dean and Professor, Department of Microbiology and Immunology, College of Medicine, University of Illinois Chicago, M R Sreenivasa Murthy, Chief Executive, Gokula Education Foundation (Medical), Dr. S C Nagendra Swamy, President, Ramaiah Memorial Hospital, Venugopal Sastry, Chief Finance Officer, Gokula Education Foundation (Medical), Prof. K K Raina, Vice Chancellor, RUAS, Prof. O P Kharbanda, Pro- Vice Chancellor, RUAS, Dr. Shalini C Nooyi, Principal & Dean, Ramaiah Medical College & Hospital, Dr. Ramesh D, Associate Dean, Ramaiah Medical College Hospital, Dr. K C Gurudev, Director, Nephro-Urology, Dr. Umesh K, HoD, Dept. of Radiation Diagnosis & Interventional Radiology and others were present.









# Monsoon Brings Surge in Dengue Cases: Facts, Symptoms, Treatments!

s the monsoon brings much-needed relief from the scorching summer, it also arrives with a familiar foe that is dengue fever. This mosquito-borne illness is a yearly visitor in many regions. In the recent days, it has spiked again in Karnataka. These alarming cases have become a big talk in the health care departments also.

# To know more about the dengue here are some few key facts:

- Dengue is a viral infection transmitted to humans through the bite of infected mosquitoes.
- About half of the world's population is now at risk of dengue with an estimated 100–400 million infections occurring each year.
- Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas.
- While many dengue infections are asymptomatic or produce only mild illness, the virus can occasionally cause more severe cases, and even death.
- Prevention and control of dengue depend on course control. There is no specific treatment for dengue/severe dengue, and early detection and access to proper medical care greatly lower fatality rates of severe dengue.

#### Symptoms of dengue fever:

The common symptoms of Dengue fever are high-grade fever, body joint pains, pain behind the eyes, headache, vomiting, pain in abdomen, and rashes in most of the people. In most of the individuals, this viral infection will have a gentle course of having fever, and there can be low platelet counts. But however, in small subset of people, this Dengue fever can have some complications, like

bleeding, which we call as Dengue haemorrhagic fever. In addition, in some patients, it can lead to low



blood pressure, leading to multiple organ failure, which we call as Dengue shock syndrome.

#### What are the treatments for dengue fever?

There is no definitive treatment of Dengue fever. However, the supportive treatment like IV fluids, paracetamol is given, and most of the times when there is significant drop in the platelets, platelet transfusion is done as per the WHO guidelines.

# What are the preventive measures to be taken for dengue fever?

Some tips to prevent Dengue fever are we have to prevent ourselves from getting bitten by the mosquitoes, wear full-sleeved cloths, use mosquito repellents, use mosquito nets, Keep the areas inside your house clean and do not store the water surrounding the house and consult doctors whenever you have any symptoms.

In an effort to curb the spread of dengue, Ramaiah Hospitals have implemented several measures to protect their patients. The wards and surrounding areas are being regularly cleaned and sprayed with disinfectants to prevent the spread of the fever and the departments of community medicine and the



general medicine are well equipped with all the facilities and doctors.





The department of Gastroenterology organised a guest lecture by Dr. Venkataramani, a renowned gastroenterologist and Hepatologist on the Topic "A New Name for an Old Disease - Metabolic Dysfunction Associated Steatotic Liver Disease (MA SLD)" on 3rd July, 2024 at Ramaiah Medical College. Dr. Shalini C Nooyi, Principal & Dean, Ramaiah Medical College & Hospital, Dr. Nandakumar, Accociate Dean, Research and Innovations, RUAS & Research and Patents, Dr. Avinash, Prof. & HoD, Dept. of Medical Gastroenterology, Dr. Harshavardha Rao, Prof. Dept. of Medical Gastroenterology and others were present at the event.

# International Day Against Drug Abuse and Illicit Trafficking

The Department of Forensic Medicine conducted a poster competition on 4th July, 2024 to create awareness on the ill effects of drug abuse as a part of the "International Day against Drug Abuse and Illicit Trafficking". The Theme for 2024 is "The evidence is clear: invest in prevention." The event was judged by Dr. Anuradha H V, HOD, Dept. of Pharmacology, Dr. Arjunan Isaac, HOD. Dept. of Community Medicine, Dr. Deepak TS, HOD. Dept. of Critical Care Medicine and Dr. Ananth Bhandary S, HOD, dept. of Ophthalmology.





Dr. Aruna C Ramesh, Prof. & HOD, Dept. of Emergency Medicine was invited for a review meeting at Home Guards & Civil Defence review meeting on 5th July, 2024.



Dr. Deepak T S, Prof. & HOD, Department of Critical Care Medicine was awarded as an Inspiring Intensives of India from Times Now group.



# Early Menarche Onset in Girls: Why should we be Concerned?

enarche or onset of menstrual cycles in girls is a major milestone in the lifetime of a woman. It marks the onset of the reproductive period of life- a stepping-stone into womanhood! Hence, menarche receives immense cultural significance across the Indian subcontinent. Onset of m in a girl is menarche celebrated with great enthusiasm in several communities throughout India. Menarche also marks the end of childhood, due to the remarkable physical, physiological, metabolic and emotional changes that come with it. However, early menarche cuts short their precious childhood period and burdens the child with responsibilities of womanhood at a tender age.

#### Age at Menarche:

Age at menarche is variable and can be anywhere between 11-16 years. Early onset of menarche before the age of 11 to 12 years cuts short the period of childhood for many girls. It also has a significant impact on their physical and psychological well being.

#### Steady Decline in Age at Menarche in girls:

A steady decline has been observed in the age at which girls achieve menarche all over the world over the past decade. The mean menarcheal age has declined from 16 years to 12 years in India. Increasing number of girls are experiencing their first period even at an early age of 9-10 years which is very concerning.

Although, early menarche is a technical term used for menarche under the age of 8 years, menarche before the age of 12 has significant negative impact on the health of the girl child and hence requires attention.

#### Health Risks of Early menarche:

Early onset of menarche in girls is associated with a plethora of negative health outcomes both in terms of their growth and susceptibility to specific disorders. For example, early menarche leads to shortening of height in girls and makes them prone to weight gain and obesity.

Also, the risk of following disorders is significantly increased in girls who achieved menarche before 12 years of age:

- Anxiety
- Depression
- Metabolic Syndrome
- Type 2 Diabetes
- Breast Cancer
- Cardiac Disorders
- Hypertension
- Stroke
- Obesity

#### Factors responsible for Early Menarche in girls:

There are multiple factors which influence age at menarche in girls apart from heredity. For example, urban girls are seen to achieve menarche earlier as compared to girls from rural areas. Higher BMI (Body mass Index) or obesity in girls is directly linked to early onset of menstrual cycle. Various other factors such as intake of certain foods and lifestyle can also negatively influence the age at menarche and lead to early pubertal changes and menarche in girls. They are as following:

#### **Nutritional factors:**

- Higher intake of dietary fat (oil, butter, cheese, ghee etc.)
- Higher intake of animal proteins (eggs, meat, chicken etc.)
- Higher intake of simple carbohydrates (sugar, refined grains, processed foods)
- Low intake of vegetarian Protein (nuts, grains, seeds, legumes, pulses etc.)
- Lower intake of dietary fiber (Fruits, vegetables, whole grains)

#### **Environmental factors:**

 Exposure to certain chemicals which influence hormonal changes (endocrine disruptors)
 e.g. Pesticides and heavy metal residue in fruits and vegetables, chemicals in plastic food



containers and water bottles (BPA, phthalates)

- Exposure to Xenoestrogens- Chemicals which mimic female hormone estrogen e.g chemicals found in disposable plastic containers, cosmetics and beauty products, laundry detergents, floor cleaners, room fresheners, ready to eat foods etc.
- Passive smoking (Regular exposure to cigarette smoke)

#### Lifestyle Factors:

- Lack of adequate physical activity
- Sedentary lifestyle

Once achieved, the changes of menarche are impossible to reverse! The health risks of early menarche onset are severe and may lead to generations of women with poor health. However, a lot can be done to help delay the age of menarche at least till the age of 12-13 years by allowing them access to healthy food and adequate physical

activity.

Each girl child deserves a happy and carefree childhood which can be abruptly cut short by early onset of periods. Educating parents regarding the risk factors such as exposure to endocrine disruptors and pollutants is one of the most important steps for ensuring menarche after 12 years of age.

Pediatric department at Ramaiah Ayurveda is committed in providing comprehensive guidance regarding diet, lifestyle and preventive care needed for the prevention of early menarche.







The department of Pharmacology organized a training programme on 'Ethics, Good Clinical Practice & Good Laboratory Practice' for our Post Graduate & Super Speciality Students on 29th June - 4th July 2024 at Ramaiah Medical College.



The Eco Club of Ramaiah Medical College organized a green initiative programme with pledge taking as part of World Environment Day by members on 5th July, 2024.

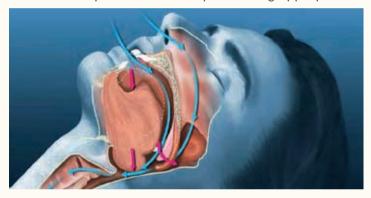


Dr. Thejeswini, Assoc. Prof. dept. of Critical Care Medicine was invited as a speaker for ISA sponsored National CME at Hassan Medical College. She delivered a talk on resurgence of negative pressure ventilation.



## AT YOUR FINGER TIPS

bstructive sleep apnea (OSA) is a prevalent sleep disorder characterized by repeated episodes of partial or complete cessation of breathing during sleep. The consequences of this disorder range from excessive daytime sleepiness, cognitive impairment, and decreased quality of life, to potentially life-threatening conditions such as cardiovascular diseases. Thus, early detection and diagnosis of OSA are crucial for preventing further health complications and implementing appropriate



treatment strategies.

Polysomnography examination (PSG) is a valuable and gold standard sleep test for screening obstructive sleep apnea (OSA) in the general population. It provides a comprehensive assessment of an individual's sleep architecture and can accurately diagnose OSA while identifying potential comorbidities.

PSG requires an overnight stay in a sleep laboratory and is associated with higher costs and limited availability. In contrast, Peripheral arterial tonometry can be easily performed at home, allowing for a more accessible and convenient method of diagnosis or risk assessment.

**Peripheral arterial tonometry (PAT)** is a non-invasive technique that has emerged as a potential tool for screening OSA in the general population due to its ability to assess sleep-related

changes in vascular tone and reactivity.

PAT measures changes in peripheral arterial tone by recording peripheral arterial pulsations, often through a finger probe. It provides a continuous assessment of arterial stiffness, endothelial function, and sympathetic vasoconstriction, which are all known to be altered in patients with OSA. One of the primary advantages of PAT is its ability to assess vascular function during sleep, where changes in sympathetic activity and vascular tone occur most significantly.

PAT can have a wide range of applications beyond OSA screening. Its ability to assess vascular dysfunction and sympathetic activity during sleep can provide valuable insights into various other sleep disorders, such as insomnia, restless leg syndrome, and periodic limb movement disorder. By detecting abnormalities in vascular tone and reactivity, PAT could aid in the early identification and management of these conditions.

However, despite its potential benefits, the interpretation of one sleep test requires expertise and standardization of measurement protocols to ensure accurate and reliable assessments.

With further advancements and investigations, PAT could significantly contribute to the early detection and management of sleep disorders, ultimately improving the overall health outcomes of individuals.

Dr. Prasanna Kumar T Associate professor, Dept. of Respiratory Medicine





The Department of General Surgery conducted Basic Laparoscopy workshop on 10th July, 2024 for Postgraduate Residents of General Surgery and OBG at Ramaiah memorial Hospital. Dr. Shalini C Nooyi, Principal & Dean, Ramaiah Medical College & Hospital, Dr. Jyothi, Prof. HoD, dept. of OBG, Dr. Srikantaiah H C, Prof. & HoD, dept. of General Surgery and others were present.



Dr. Jyothi G S, Prof. & HOD, Dept. of OBG, Dr. Nandini, Prof. dept. OBG & Dr. Manjula, Assoc Prof. dept. of OBG, participated in Annual BSOG PG CME at Bengaluru.



The Department of Pathology organized a two-day CME on 'Bone Marrow Aspiration Biopsy Interpretation and Lymphoma Updates' on 13th July, 2024. Distinguished expert faculty from Tata Memorial Hospital, Regional Cancer Centre, Trivandrum and Kidwai Memorial Institute of Oncology participated as resource persons.

Dr. V S Prakash, Prof. & HOD, Cardiology was invited as an international guest faculty for the Srilankan International Cardiology summit 11th July, 2024.





'Deeksharambh' an Induction Programme for the students was organised by Ramaiah University of Applied Sciences. Prof. K K Raina, Vice Chancellor, RUAS, Prof. O P Kharbanda, Pro- Vice Chancellor, RUAS, Dr. Medha Y Rao, Dean Academics, RUAS, Dr. Hemanth T, Registrar, Administration, Ramaiah Medical College and others were present.





# **Congratulations Doctors**

Dr. Ananth Bhandary, Prof. & HOD, Ophthalmology was conferred Best doctor award on the occasion of Doctors Day.



Dr. Madan K, Associate Professor, Dept. of General Surgery, received Vaidya Seva Ratna award from Karnataka Press Club on 27th July, 2024, on the occasion of Doctors' Day.





The Department of Transfusion Medicine organized felicitation programme for the blood donors at Ramaiah Memorial Hospital auditorium & inaugurated Compomat G5 Plus (Fresenius) on 25th July 2024 at Ramaiah Memorial Hospital.

Dr. Chitra Selvan in association with Diwas NGO for advocacy of women's health in association with George Institute UK is organising part two of global deliberative workshop on improving preconception care for women.



The department of Physiology organized a CME programme on 'Advances in Sports Physiology - Enhancing Performance & Health' at Ramaiah Medical College on 19th July, 2024.





The department of Radiology conducted a CME on Connectomic Brain Mapping which was on major Advancement towards AI in Healthcare on 26th July, 2024. Dr. S C Nagendra Swamy, President, Ramaiah Memorial Hospital, Prof. K K Raina, Vice Chancellor, RUAS, Dr. Madan S Gaekwad, Chief Operating Officer, Ramaiah Memorial Hospital, Dr. Shalini C Nooyi, Principal & Dean, Ramaiah Medical College & Hospital, Dr. Medha Y Rao, Dean Academics, RUAS, Dr. Umesh K, Prof & HOD Dept. of Radio Diagnosis and others were present.



# Bird watching at the Campus



n celebration of World Environment Day, the dept. of Physiotherapy organized a Campus Bird Count activity for the students and staff. One day morning thirteen of us gathered at the campus in 6:30 am in front of Ramaiah Teaching Hospital. Most of us were eager to embark on our first bird watching adventure and connect with nature.

Bird watching proved to be an enlightening experience. As we strolled around the campus, we observed birds flitting from branch to branch, often flying out of sight before we could capture them with our binoculars. It was astonishing to discover

the diversity of bird species visiting our campus, including feral rock pigeons, tailorbirds, common swallows, white-cheeked barbets, Indian grey hornbills, Asian koels, coppersmith barbets, purple-rumped sunbirds, Indian white-eyes, reed warblers, red-whiskered bulbuls, rose-ringed parakeets, and common mynas.

This activity was a fantastic way to learn about different bird species and their characteristics. Immersing ourselves in nature and listening to the varied chirps of these birds was incredibly calming and brought peace of mind. It was a splendid and delightful escape from the hustle of our daily routines. The experience heightened our awareness, patience, and happiness, offering a sense of fulfilment without materialistic pleasures or expectations. It was a memorable event that ignited our interest in birdwatching, and we are all eager to explore more birdwatching opportunities in different locations. We are grateful to Kirti Joshi Mam, Nitin Joshi Sir, and Deva (1st year UG student) for sharing their hobbies, knowledge, experiences with us. This has sparked a lasting passion for birding in all of us.

Suraksha

2nd Year MPT student

Dr. Isha Raaj, Final year PG student of Department of Biochemistry won the 2nd place in Postgraduate Quiz competition on 12th July, 2024 in the 9th State Level Conference of Association of Medical Biochemists Karnataka Chapter-AMBKCCON 2024 at Adichunchunagiri Institute of Medical Sciences, BG Nagara.







Dr. Manu Kaushik won ASU Meritorious PG Award 2024-2025 in the 35th Annual Conference of 'The Association of Sourthern Urologists' on 26th -28th July 2024.

Saniya N Srivastava and H R Shruti are the runners-up in the Indian Academy of Paediatrics Undergraduate quiz - zonal level (Bengaluru) on 24th July, 2024.





Keerthi B B and Neha K secured third place in the 'Cognitaire 3.0 Pre-para Clinical Quiz' at BGS Global institute of medical science, Bengaluru.

# **Doctor's Day Celebrations**

On the occasion of Doctor's Day & Environment Day the department ENT organised doctors day celebrations at Ramaiah Medical College on 16th July, 2024. The chief guest for the programme was Dr. Malali Gowda, Founder & President, DNA Life Organization, Yelahanka, Bengaluru. Dr. S C Nagendra Swamy, President, Ramaiah Memorial Hospital, Dr. Shalini C Nooyi, Principal & Dean, Ramaiah Medical College & Hospital, Dr. Ramesh D, Associate Dean,





Ramaiah Medical College Hospital, Dr. A G Prathab, Registrar Academics, Ramaiah Medical College, Dr. Medha Y Rao, Dean Academics, RUAS, Dr. Vinay Martin Prabhu and others were present at the programme.

The Department of Radiation Oncology in alliance with external subject expert Dr.Siddanna professor in Radiation Oncology from Kidwai Memorial Institute of Oncology conducted a hands-on Cadaveric Brachytherapy workshop on 27th July, 2024 at Advanced Learning Centre.





# Sarcoma the Great Masquerader



uly is the month known as Sarcoma awareness month. Sarcomas are rare cancers that develop in the muscle, bone, nerves, cartilage, tendons, blood vessels and the fatty and fibrous tissues.

Sarcomas are often referred to as "the great masquerader" in the medical field due to their ability to mimic other conditions and present with nonspecific symptoms, making them challenging to diagnose. Because sarcomas can arise in various tissues throughout the body, their symptoms can vary widely depending on the location and size of the tumor. In some cases, sarcomas may be mistaken for more common conditions such as benign tumors, muscle strains, or joint injuries, leading to delays in diagnosis and treatment.

Sarcomas are a heterogeneous group of rare cancers that originate in the body's connective tissues, encompassing more than 50 different subtypes.

There are two main categories of sarcomas: soft tissue sarcomas and bone sarcomas.

Soft tissue sarcomas can develop in any soft tissue of the body, such as muscles, fat, nerves, and blood vessels. Some common types of soft tissue sarcomas include:

- **1. Leiomyosarcoma:** Arising from smooth muscle cells, leiomyosarcoma can occur in various soft tissues of the body.
- **2. Liposarcoma:** Developing from fat cells, liposarcoma is one of the most common types of

soft tissue sarcoma.

- **3. Synovial sarcoma:** This type of sarcoma typically affects the soft tissues around joints, such as the knee or ankle.
- 4. Rhabdomyosarcoma: Primarily found in children and adolescents, rhabdomyosarcoma originates from skeletal muscle cells. This sarcoma is curable in high percentage of patients.
- **5. Angiosarcoma:** Arising from blood vessels or lymphatic vessels, angiosarcoma can occur in various parts of the body.

Bone sarcomas, on the other hand, originate in the bones and can be classified into different types, including:

- 1. Osteosarcoma: The most common type of primary bone cancer, osteosarcoma typically affects children and young adults. Osteosarcoma patients are usually cured with modern treatment if detected early.
- **2. Chondrosarcoma:** Arising from cartilage cells, chondrosarcoma is the second most common type of bone cancer.
- **3. Ewing sarcoma:** A rare type of bone cancer that primarily affects children and young adults, often occurring in the long bones or pelvis and is curable in vast majority of patients.

These are just a few examples of the many subtypes of sarcomas that can affect individuals of all ages. Each type of sarcoma has its own unique characteristics, treatment approaches, and prognosis, underscoring the importance of accurate diagnosis and personalized care in managing these complex cancers.

While the exact etiology of sarcomas remains complex and multifaceted, researchers have identified certain genetic mutations, environmental exposures, and underlying conditions that may predispose individuals to these malignancies. For instance, hereditary syndromes like Li-Fraumeni syndrome, neurofibromatosis, and retinoblastoma are associated with an increased risk of developing sarcomas. Exposure to ionizing radiation, certain chemicals (such as vinyl chloride), and chronic



inflammation have also been linked to the development of sarcomas. Moreover, prior treatment with radiation therapy for other conditions, such as childhood cancers, can elevate the risk of secondary sarcomas later in life. While the prevention of sarcomas may not always be feasible due to these complex factors, adopting a healthy lifestyle that includes regular physical activity, a balanced diet, and avoidance of tobacco and excessive alcohol consumption can contribute to overall well-being and potentially reduce the risk of cancer development.

When it comes to diagnosing sarcomas, healthcare providers utilize a range of diagnostic tools and procedures to accurately identify and characterize these tumors. Imaging studies such as X-rays, magnetic resonance imaging (MRI), computed tomography (CT) scans, and positron emission tomography (PET) scans are commonly employed to visualize the tumor, assess its size and location, and determine if it has spread to other parts of the body. A definitive diagnosis of sarcoma often requires a tissue biopsy, where a sample of the suspicious tissue is collected and analyzed under a microscope by a pathologist. This biopsy helps confirm the presence of cancerous cells, establish the specific subtype of sarcoma, and guide treatment decisions. Early detection of sarcomas is crucial for optimizing treatment outcomes and improving long-term prognosis. Individuals should promptly seek medical attention if they notice any warning signs, such as a palpable lump, unexplained swelling, persistent pain, or limited range of motion in a specific area. In some cases, sarcomas may present with nonspecific symptoms, making a comprehensive evaluation by a healthcare professional essential for an accurate diagnosis. Once a sarcoma is diagnosed, the treatment approach is tailored to the individual patient's

unique circumstances, including the type and stage of the cancer, the tumor's location, and the individual's overall health and preferences.

The treatment of sarcomas typically involves a multidisciplinary approach tailored to the specific type, stage, and location of the cancer. Surgery is often the primary treatment for sarcomas, aiming to remove the tumor and surrounding tissues while preserving as much healthy tissue and function as possible. In cases where surgery alone may not be sufficient, radiation therapy may be used to target any remaining cancer cells and reduce the risk of recurrence. Chemotherapy, which utilizes powerful drugs to kill cancer cells, may also be recommended depending on the type of sarcoma and its response to other treatments. Targeted therapy, which targets specific molecules involved in tumor growth, and immunotherapy, which harnesses the body's immune system to fight cancer, are emerging as promising treatment options for certain types of sarcomas. The choice of treatment modalities and the sequence in which they are administered are determined through collaborative discussions among a team of healthcare professionals, ensuring a comprehensive and personalized approach to care that addresses the individual needs and preferences of each patient. Regular follow-up care is essential to monitor treatment response, manage potential side effects, and detect any signs of disease recurrence early, enabling timely interventions to optimize outcomes and quality of life for individuals with sarcomas.

Dr. Santhosh

Associate Professor
Dept. of Oncology, Ramaiah Hospitals



Workshop on Accessing National & Global Research Grants was conducted under the leadership of Dr. Bellur S Prabhakar, Sr. Associate Dean and Professor, Department of Microbiology and Immunology, College of Medicine, University of Illinois Chicago, on 9th July, 2024.





The Centre for National Security Studies (CNSS), in collaboration with the Chief Representative Office organised a Central Discussion on 'Tibetan Plateau and India's Climate Security' on 6th July, 2024.



Dr. Nivedita Reahme, Asst. Prof. dept. of OBG presented a talk on the 'link between endometrial cancer and hair straighteners' at the BSOG PG CME at API Bhayan



Ramaiah Medical College Hospital organized NGO- 'Connect' an Interaction with NGO's that are involved in Community Health Services from Bengaluru Urban, Rural & other States on 31st July, 2024 at Ramaiah Medical College.

### **WELCOME**



**Dr. Lilly Sam Cherian** Senior Resident, Anaesthesiology



Dr. Vempalli Reddisai Raju Senior Resident, Radio Diagnosis



**Dr. Pooja Subramanya** Senior Resident, Radio Diagnosis



Yashaswini G HR Assistant, RMC



Mamatha R Library Assistant Library & Information Centre

### **SEPARATED**



**Dr. Namita Anne** Senior Resident Anaesthesiology



**Dr. Vara Prasad B.M**Assistant Professor, Pathology



**Dr. Agam Roop Singh Randhawa**Senior Resident, Radio Diagnosis



**Dr. Veena V.T** Senior Resident, Dermatology



**Dr.Nagappa H.H**Professor, General Medicine