



Billroth  
Hospitals

HEALTH IS BEYOND WEALTH

# ONCOLOGY NEWSLETTER

July 2024 - Volume 08 - Billroth Hospitals







**Dr. V. Jeganathan**  
Founder, Billroth Hospitals



**Billroth**  
Hospitals

*"It has been said that a gentle word, a warm hand, a willing ear and small acts of kindness, often taken for granted, can change a life. We believe that to be true. Because we have seen first-hand the power of caring with compassion."*

*~ Dr. V. Jeganathan - Founder*

## MAN WITH VISION...

### The Seed was Sown

An extraordinary physician of our times, **Dr. V. Jeganathan** watched thoughtfully as the first bricks for his dream hospital were laid. His vision for creating a world-class healing environment that would attract the best medical minds was taking shape. He dreamt of creating an institution that would serve as a beacon of hope to patients from across the world, offering them the highest standards of excellence in medical care, delivered with compassion. And so began a journey that started with a 70-bed hospital for Gastroenterology. Now Billroth Hospitals, offers an entire spectrum of Medical Care.



**SINCE 1990, THERE WERE NO  
COMPROMISES AND NO LOOKING  
BACK AT BILLROTH HOSPITALS.**

*Ready to Care*  
**EVERYWAY. EVERYDAY..**



# RADIATION ONCOLOGY DEPARTMENT - THE JOURNEY SO FAR ...



The **Radiation Oncology department of Billroth Hospitals Ltd.** was started by our late founder visionary Dr. V. Jeganathan in the year 2007. The department had a humble beginning with the then State of the Art advanced Linear Accelerator capable of performing IMRT with dual photon energies and four electron energies along with a High Dose rate Brachytherapy unit. In 2011, the Linear Accelerator was upgraded with Rapid Arc Technology to provide treatment on par with global standards. Rapid Arc is an advanced modality that performs conformed arc modulated treatments in a fast and effective manner with fewer side effects.

The main goal of Radiotherapy is to deliver dose to tumour precisely while sparing adjacent critical structures.

Every patient undergoes appropriate immobilization followed by CT Simulation initially and those images are fed in to the Treatment Planning System (TPS). During segmentation different target volumes are contoured in every slice of the CT image along with the normal adjacent structures and critical organs. The next step involves treatment planning wherein an optimized plan is obtained to deliver maximum dose to tumour while minimizing the dose to critical structures.





## RADIATION ONCOLOGY DEPARTMENT - THE JOURNEY SO FAR ...



The aim of the department has always been precision and accuracy of treatment. Meticulous and Regular Quality Assurance (QA) and Radiation safety programs help in achieving this. QA programs are vigorously carried out periodically to assure the accuracy of treatment delivery, by classifying QA as machine specific and patient specific. Machine specific QA were categorized and performed daily, weekly, monthly and annually as per Atomic Energy Regulatory Board (AERB) of India stipulations. Patient specific QA are performed for every patient before and during the treatment.



In 2009, the department with just 6 staff organized the annual conference of Association of Medical Physicists of India, Tamil Nadu and Puducherry chapter AMPITNPYCON-2009 in a very grand and commendable way with many scientific lectures and presentations attended by well over 300 delegates from all over India.

In 2013, the department hosted the annual conference of Association of Radiation Oncologists of India, Tamil Nadu and Puducherry chapter AROITNPYCON-2013. Apart from many scientific and research studies presented and discussed in this conference, it also hosted many delegates and stalwarts in the field of Radiation Oncology nationally and internationally.



Many Brachytherapy procedures besides the treatment of gynaecological malignancies, treatment of eyelids, superficial keloids and a few interstitial techniques were successfully performed. Today, the department has grown in the best possible ways and till date 10,200+ patients were treated. We have also successfully done 4500+ Brachytherapy treatments.

Apart from being a clinically high performing department, academic contributions have also been a priority. Many clinical studies and dosimetric analysis were performed on the machine and various papers were published in National and International journals contributing to the academic development of the department.



## RADIATION ONCOLOGY DEPARTMENT - THE JOURNEY SO FAR ...



Adding to the pedagogical contributions, many students undergoing radiotherapy technologist courses in various institutions are accepted in the department for training as part of their curriculum. The post graduates from many renowned universities also come for training and projects to the department. The department also takes up many interns after their post-graduation and equip them for their professional clinical career. The faculty of the department in spite of their busy clinical schedules have always showed interest and put great efforts in educating the future generation of this field. Our faculties have also been mentors to Ph.D. students. The department takes great pride that the students, trainees and interns guided from this department have been well placed in many acclaimed hospitals all over our country. Acknowledging the clinical and academic contributions of the faculties of the department, they have been recognized with many awards and accolades in many State and National bodies in the field of Radiation Oncology. Also our faculties have held many posts and positions in the office of the governing body of the State and National chapters of Radiation Oncology and Medical Physics associations.





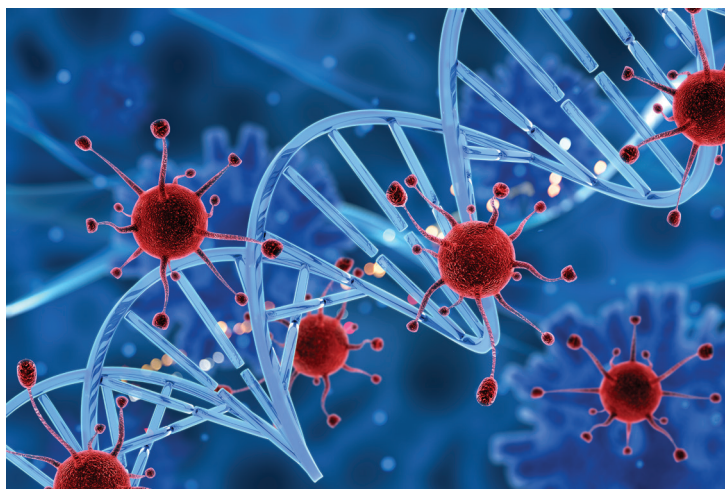
# MULTIDISCIPLINARY APPROACH IN CANCER CARE

The ultimate goal of Oncological management is to combine multiple approaches judiciously to optimize the overall survival benefit and quality of life of the patients

It starts with quick and comprehensive evaluation at initial diagnosis and recurrent disease to speed up the patient care. The workup includes thorough clinical assessment, diagnostic imaging (CT, MRI, PET), Biopsy/image guided biopsy for tissue diagnosis, Endoscopic studies, Histopathological confirmation, Immunohistochemistry, Tumor markers, Molecular biology and genetic counselling for accurate staging and prognostication.

Multidisciplinary approach is taking an unanimous decision for an appropriate treatment protocol for an individual patient based on documented medical evidences after elaborate discussions in the multidisciplinary tumor board, taking into consideration the patient needs like nutrition, physical activities, co morbid conditions and psychological issues

Out of the treatment decisions Surgery, Radiation therapy, Chemotherapy, Targeted therapy, Immunotherapy, Radionuclide therapy, Interventional Radiology, Clinical and translational cancer options, Rehabilitation and Pre-habilitation therapy, Pain and Palliative care therapy, one or more options are offered to the patient based on individualised treatment decisions and strategy.



This edition of the news letter on ONCOLOGY contain articles and case reports touching upon the different perspectives of these Oncological interventions



**Dr. L. Padmanabhan M.D.RT**  
*Senior Consultant -Clinical Oncology & Radiation Therapy  
Department of Radiation Oncology*



# PREVENTION IN ONCOLOGY



Cancer prevention involves a combination of lifestyle changes, regular screenings, and awareness of genetic factors. Adopting preventive measures can significantly reduce the risk of developing many types of cancer. This section outlines key strategies for cancer prevention, emphasizing the importance of a proactive approach to health.

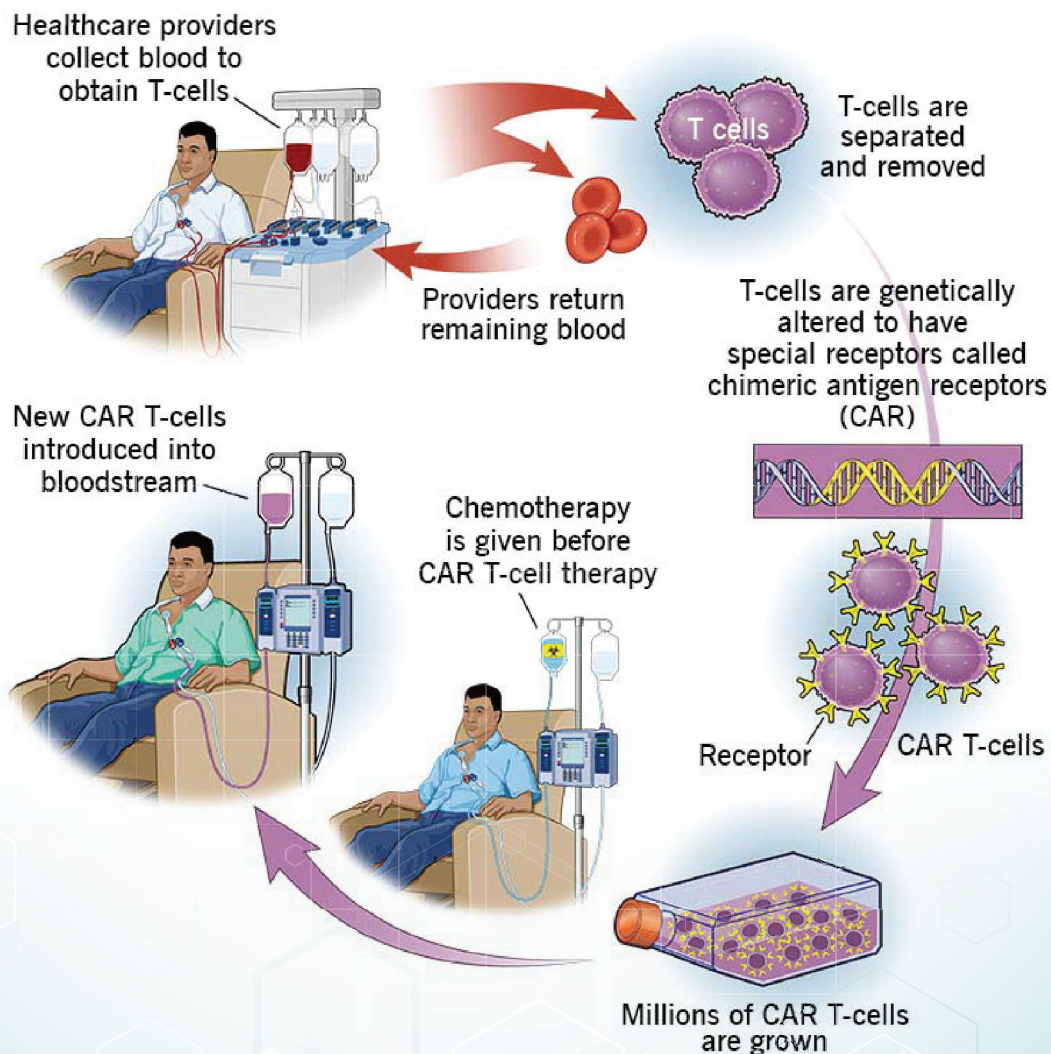


# RECENT ADVANCEMENTS IN ONCOLOGY



Chimeric antigen receptor (CAR) T-cell therapy is a groundbreaking form of immunotherapy that has revolutionized the treatment of certain blood cancers. This innovative approach harnesses the power of the patient's own immune system to fight cancer, offering hope to those who may have exhausted other treatment options.

## How CAR T-cell therapy is used to treat cancer





# IN THE ERA OF ORGAN CONSERVATION-THE IMPORTANCE OF RADIATION IN SOLID TUMORS



Cancer is a global and primary health problem, with more than 18 million diagnosed cases and 9.6 million deaths worldwide. Multidisciplinary management that aims to define individual, optimal treatment strategies through shared decision making between healthcare professionals and patient is a fundamental aspect of high-quality cancer care.

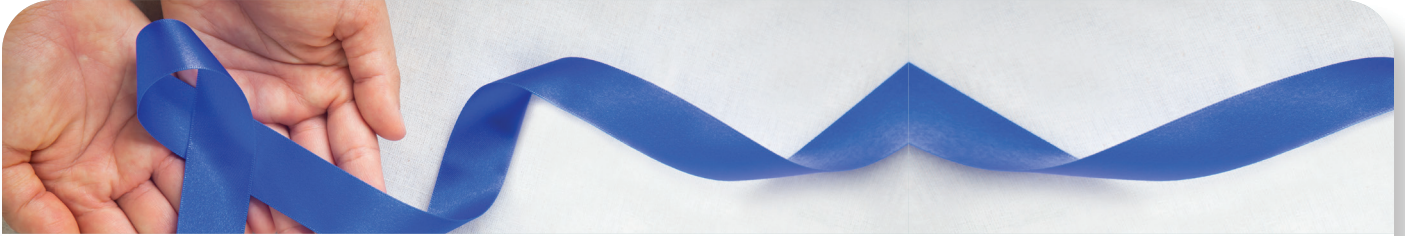
Radiation therapy (also called radiotherapy) is a cancer treatment that uses high doses of radiation to kill cancer cells or slows their growth by damaging their DNA.

The ability to accurately delineate tumors continues to improve owing to the integration of existing and novel forms of computed tomography, magnetic resonance imaging, and positron emission tomography. Image guidance is increasingly entering the mainstream of Radiation oncology practice. Technical advances are speeding up the process of tumor and healthy tissue contouring and treatment planning, thus making adaptive radiotherapy increasingly workable in routine clinical practice. These advances are progressively enabling the delivery of ever more effective radiation doses to tumors that are physically close to very radiosensitive, essential organs and structures. In case of an inoperable scenario 4D image-guided adapted stereotactic radiotherapy can support potentially curative surgery in some patients.

There are two main types of radiation therapy, External beam radiation and internal- Brachytherapy.

External Beam Radiation uses several of the highly conformal techniques to irradiate the tumor to cure it or making it amenable for a curative surgery. In Adjuvant, Concurrent or sometimes Neoadjuvant setting Radiation has a big role.

In the present day, Rectal Carcinoma after neoadjuvant chemoradiotherapy allows for sphincter-saving surgery in three quarters of the patients. Moreover, in almost one third of the patients the tumor completely disappears after neoadjuvant chemoradiotherapy. These patients who exhibited a complete response as a rule prefer a non-operative, watch-and-wait approach. Accordingly, increasing numbers of patients, who respond very well after neoadjuvant chemoradiotherapy, are managed non-operatively and in many who undergo surgery the post operative report shows no residual disease. This is a big Breakthrough as in it avoids colostomy bag.



Radiation ensure excellent cosmesis. Especially as removal of these organs will render the patient very vulnerable and some may find the ordeal traumatic .

Breast Conservation surgery in the rightly selected women , helps them deal with the trauma of the disease and since we do the surgery its mandatory that they undergo Radiation post operatively.

Voice conservation in vocal cord tumors, advanced cancer in Buccal mucosa, Gingival tumors, Tongue etc are able to eat normally post treatment of cancer.

The most important role of Radiation in this era of Organ Conservation is in Breast, Vocal cord, Oral cavity, Upper and Lower limbs and many inoperable tumors.



**-Dr. Saritha Damodaran, DMRT MD**  
Senior Radiation Oncologist



# MOBILITY IS LIFE: ADVANCEMENTS IN LIMB PRESERVATION SURGERY



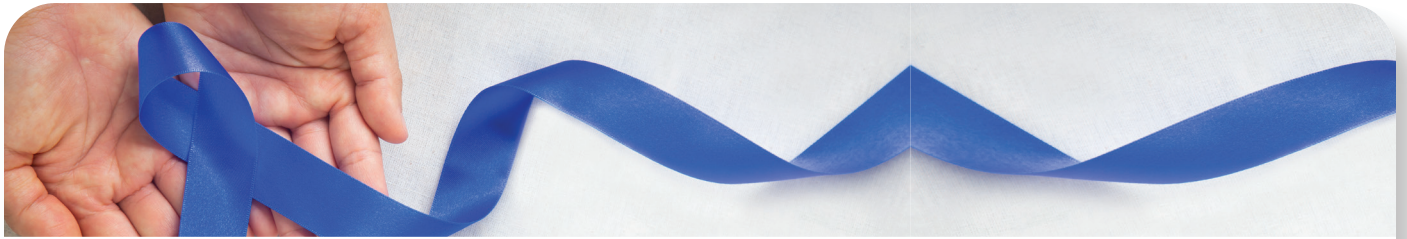
At Billroth Hospitals, we believe that mobility is life. Our limb preservation surgeries are performed for most bone and soft tissue sarcomas. With the advent of effective chemotherapy and advanced custom-made prosthetics, we ensure patients can maintain their mobility and quality of life.

## LAPAROSCOPIC MANAGEMENT OF GYNECOLOGIC TUMORS

We employ laparoscopic management of gynecologic tumors wherever feasible. This approach ensures early recovery and less perioperative morbidity, enhancing the overall patient experience.



## ADVANCED OVARIAN CANCER STAGING LAPROTOMY



## ADVANTAGES

### **Reconstructive Surgery: A Multitude of Options**

We offer an array of reconstructive options ranging from local/regional to free flap reconstruction. These techniques help us adequately manage both early and advanced diseases, restoring functionality to our patients.

### **Surgical Management of Cancer: Evolving Techniques**

The surgical management of cancer has evolved leaps and bounds. Moving away from mutilating surgeries, there is now a paradigm shift towards organ-conserving, functional surgeries. This progress results from extensive research and the introduction of effective systemic therapy and advanced radiotherapy techniques, ensuring the oncological safety of these procedures.

### **Reduction in Functional and Psychological Impairment**

The significant reduction in both functional and psychological impairments has tremendously improved the post-operative quality of life for patients.

Here, we showcase a few of our key surgical procedures:

#### **Breast Cancer Surgery:**

The body image and emotional impact of total mastectomy cannot be overstated. Breast-conserving surgery has proven to be oncologically safe while significantly improving patients' quality of life. At Billroth Hospitals, we employ Level 2 lumpectomies and complex oncoplastic procedures, ensuring acceptable cosmetic and superior oncologic outcomes.

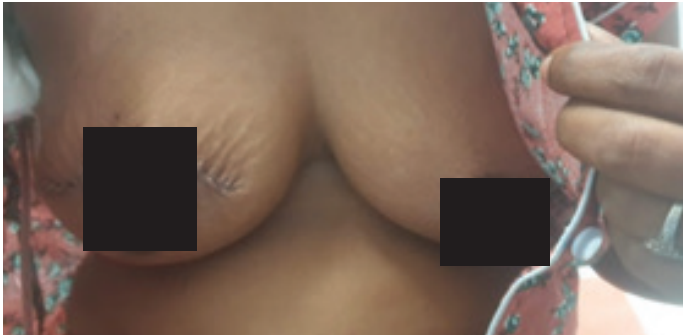
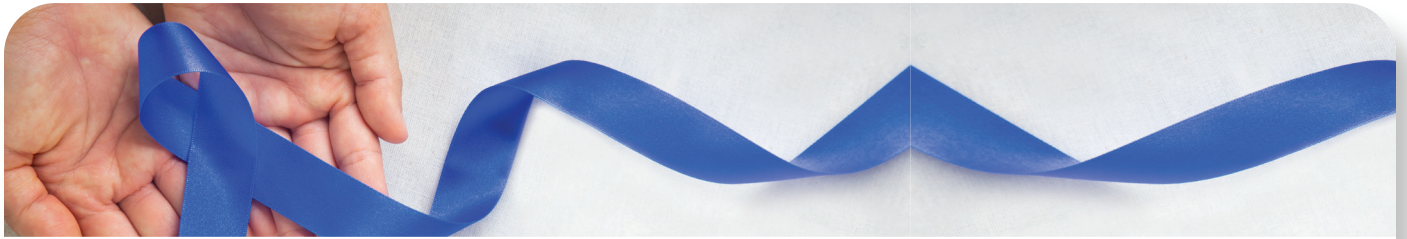
- Mobility is life is a patient saying. Limb preserving surgeries are done for most bone and soft tissue sarcomas. Thanks to the effective chemotherapy and advanced custom made prosthesis.
- We employ laparoscopic management of gynecologic tumors. Whenever feasible ensuring early recovery and less perioperative morbidity.
- With an array of reconstructive options available from locoregional to free flap reconstruction. We adequately reset both early and advanced disease restoring the functionality to the patient.

### **BREAST LEVEL II – BREAST ONCOPLASTY**



### **MATRIX ROTATION FLAP**





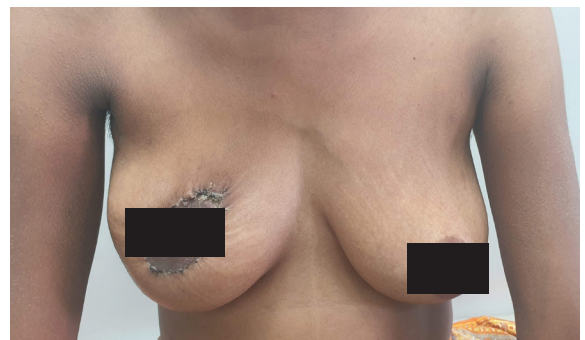
**BATWING ONCOPLASTY**



**AICAP FLAP**



**LICAP FLAP**



**ROUND BLOCK MAMMOPEXY**

## HEAD & NECK CANCER



**BASAL CELL CANCER**



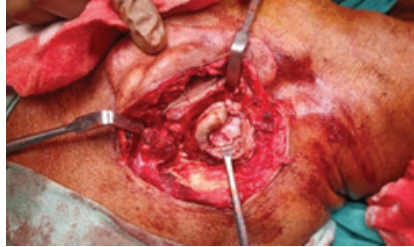
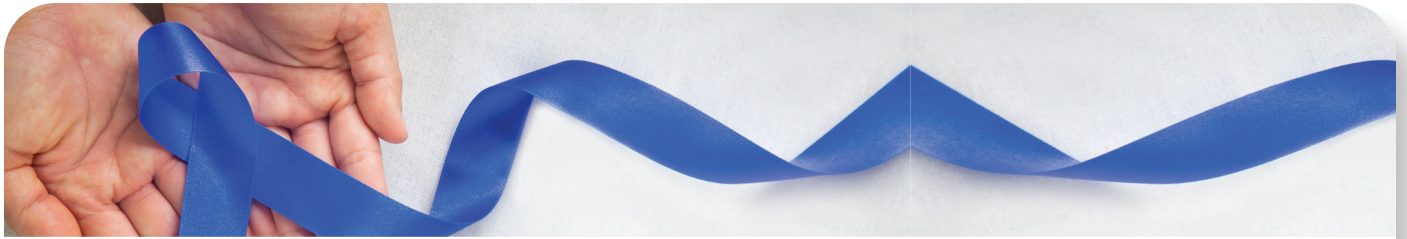
**EXCURSION WITH FLAP RECONSTRUCTION**



**NERVE SPARING PAROTIDECTOMY**



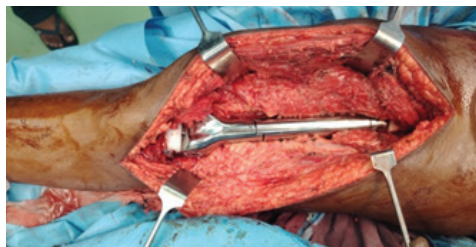




### **LATERAL TEMPORAL BONE RESECTION**



### **EARLY HEAD & NECK CANCER**



### **DISTAL FEMUR RESECTION & MODULAR PROSTHETIC RECONSTRUCTION**



### **LOCAL ADVANCED HEAD & NECK CANCER**



**-Dr. X. Gerald Anand Raja,**  
 MBBS, M.S.,(Gen.Surg)., D.N.B., M.Ch (Surgical Oncology)  
 Surgical Oncologist.



# CASE REPORT

## TARGETING CURE IN A METASTATIC OROPHARYNGEAL TUMOUR - HARNESSING THE POWER OF HIGH TECH RADIOTHERAPY

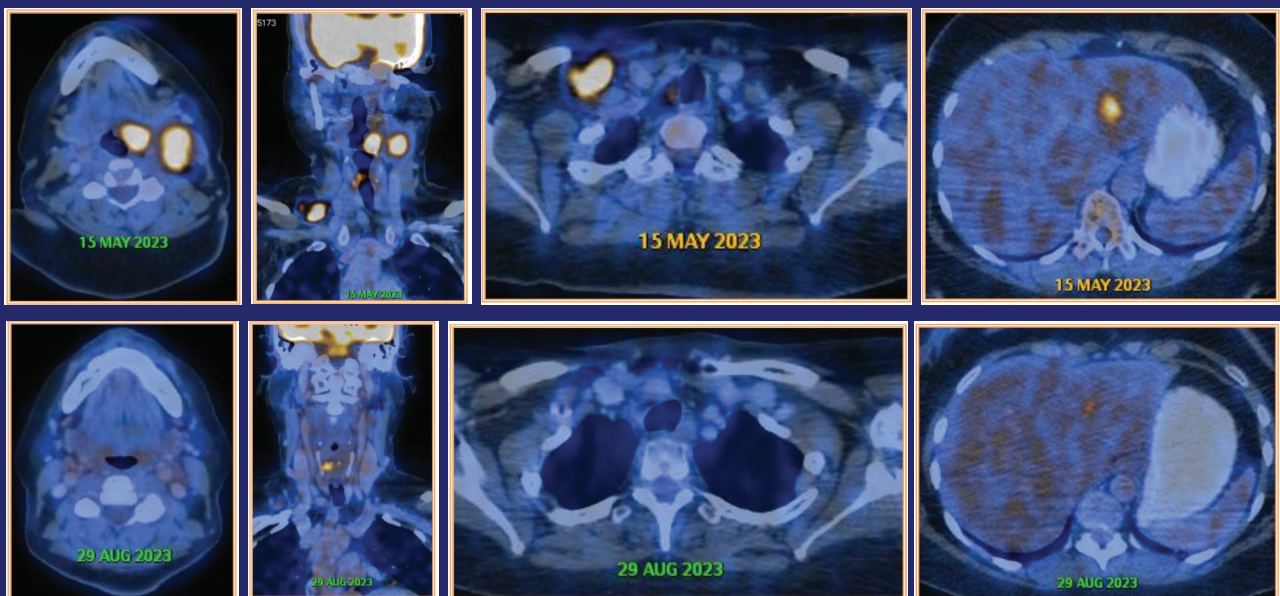


A 56-year-old female patient presented with swelling and mild ulceration over the base of tongue. On examination it was revealed that there was an ulcero-proliferative growth in the base of tongue with bilateral level two and level three lymph nodes present on neck examination.

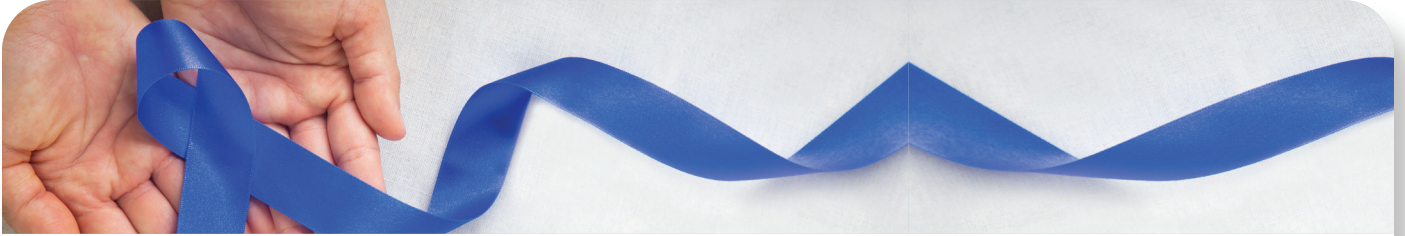
Histopathological examination revealed a moderately differentiated, squamous cell carcinoma grade 2. The patient was subjected to FDG PET CT whole body for assessment of spread of the disease. The FDG pet revealed left Vallecular tumour with regional spread to the lymph nodes in the left side of neck and nodes in right supraclavicular region. More worryingly the PET CT revealed probable liver metastasis.

After detailed discussions regarding the risk of proven liver Metastasis changing the progression and the prognosis of the disease, the patient accepted to undergo a CT guided biopsy from the suspected liver lesion. The biopsy report from the liver lesion suggested a metastatic carcinomatous deposit.

### PRE TREATMENT



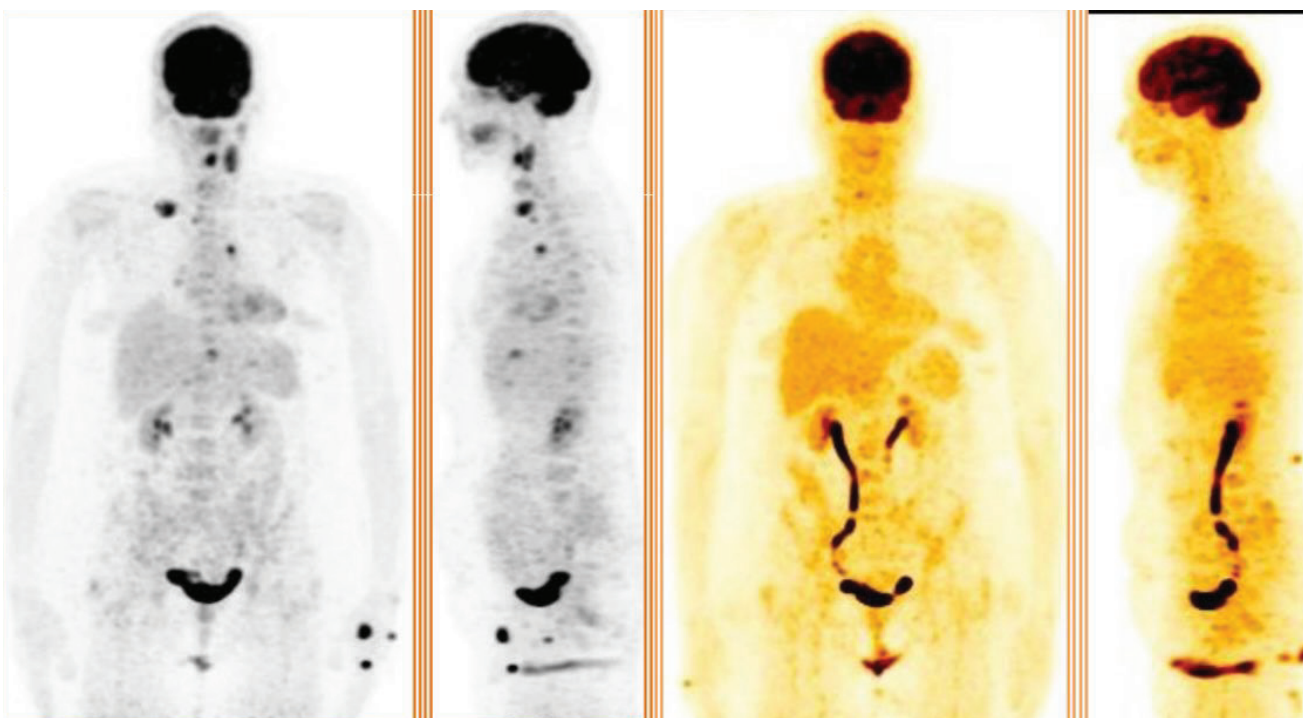
### IMMEDIATE POST TREATMENT



Armed with the above investigations and the proof of oligometastatic nature of her condition, the patient and her family were taken into confidence after clear explanation of the situation. Despite the theoretical stage of the disease being stage four, it was clearly explained that the intent of the treatment would be curative. This decision was taken with the confidence of eliminating the the metastatic lesion in the liver with the help of stereotactic body radiation therapy.

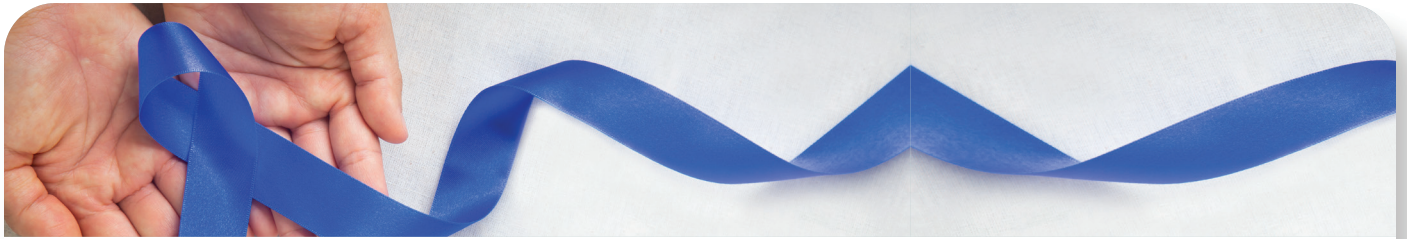
**15-May-2023**

**29-Aug-2023**



The management plan of the patient included concurrent chemo radiation which comprised 35 sittings of external beam radiation therapy over seven weeks (five sittings per week) to the primary tumour and lymphatics in both sides of the neck, using the advanced RapidArc technology (VMAT). Since the technology enabled the treatment to get over within just three minutes on a day to day basis, the side-effects of the patient were very less and she completed treatment successfully without the need for a Ryle's tube and with excellent cosmetic results. Weekly cisplatin chemotherapy was given along with the radiation for five weeks. Following the completion of the above treatment, to eliminate the liver Metástasis ,she underwent just six sittings of high-dose per fraction radiotherapy using SBRT technique.





Response assessment of the treatment was done two months later using a FDG pet CT which revealed near complete response with no residual lesions as on August 2023. At present, patient is clinically stable without any symptoms or features of recurrence. The latest PET CT scan done on June 2024 shows no evidence of any metabolic activity regionally and anywhere else in her body.

Accession No.	R2303011182489	Age/Sex	55Y / Female
Ref. Doctor	DR.DEEPAK R M.B.B.S. M.D.R.T	Date	29-Aug-2023

#### Indication for the PET scan:

❖ For follow up.

#### PET-CT Conclusion:

On comparison with previous PETCT scan dated: 15.05.2023,

- ❖ Near complete resolution of metabolically active soft tissue lesion in left vallecula.
- ❖ Interval reduction in size with near complete resolution of metabolic activity of prominent left level II and III cervical lymphnodes.
- ❖ Interval reduction in size with near complete resolution of metabolic activity of few right supraclavicular lymphnodes.
- ❖ Interval reduction in size with near complete resolution of metabolic activity of prominent para-aortic, right upper paratracheal and right hilar nodes.
- ❖ No evidence of significant pulmonary nodules.
- ❖ Interval reduction in metabolic activity of relatively stable sized ill defined hypo-enhancing lesion in segment II / IVA of liver.

No evidence of metabolically active disease anywhere else in the body

**Immediate post treatment PET CT report (August 2023)  
showing extremely favourable response**

The above case is a testament that stage four cancers are not always incurable. With the right armament of high precision radiation therapy, the perfect choice of chemotherapy and the aggressive intent to treat curatively, such excellent outcomes are no more just a dream for the oncology community.

Accession No.	R2403005503489	Age/Sex	56Y / Female
Ref. Doctor	DR.DEEPAK R M.B.B.S. M.D.R.T	Date	05-Jun-2024

#### Indication for the PET scan:

❖ For follow up

#### PET-CT Conclusion:

- ❖ No significant metabolically active lesion / restricted diffusion in left vallecula.
- ❖ No significant metabolically active bilateral cervical lymphadenopathy.
- ❖ No evidence of significant pulmonary nodules.
- ❖ No evidence of metabolically active disease anywhere in the body.

Contd...

**Most recent follow up PET CT (June 2024) showing  
no evidence of malignant cells**



**-Dr. Deepak Ramamoorthy, MBBS, M.D, FIPM, MBA(HHSM)**  
*Clinical & Radiation Oncologist.*

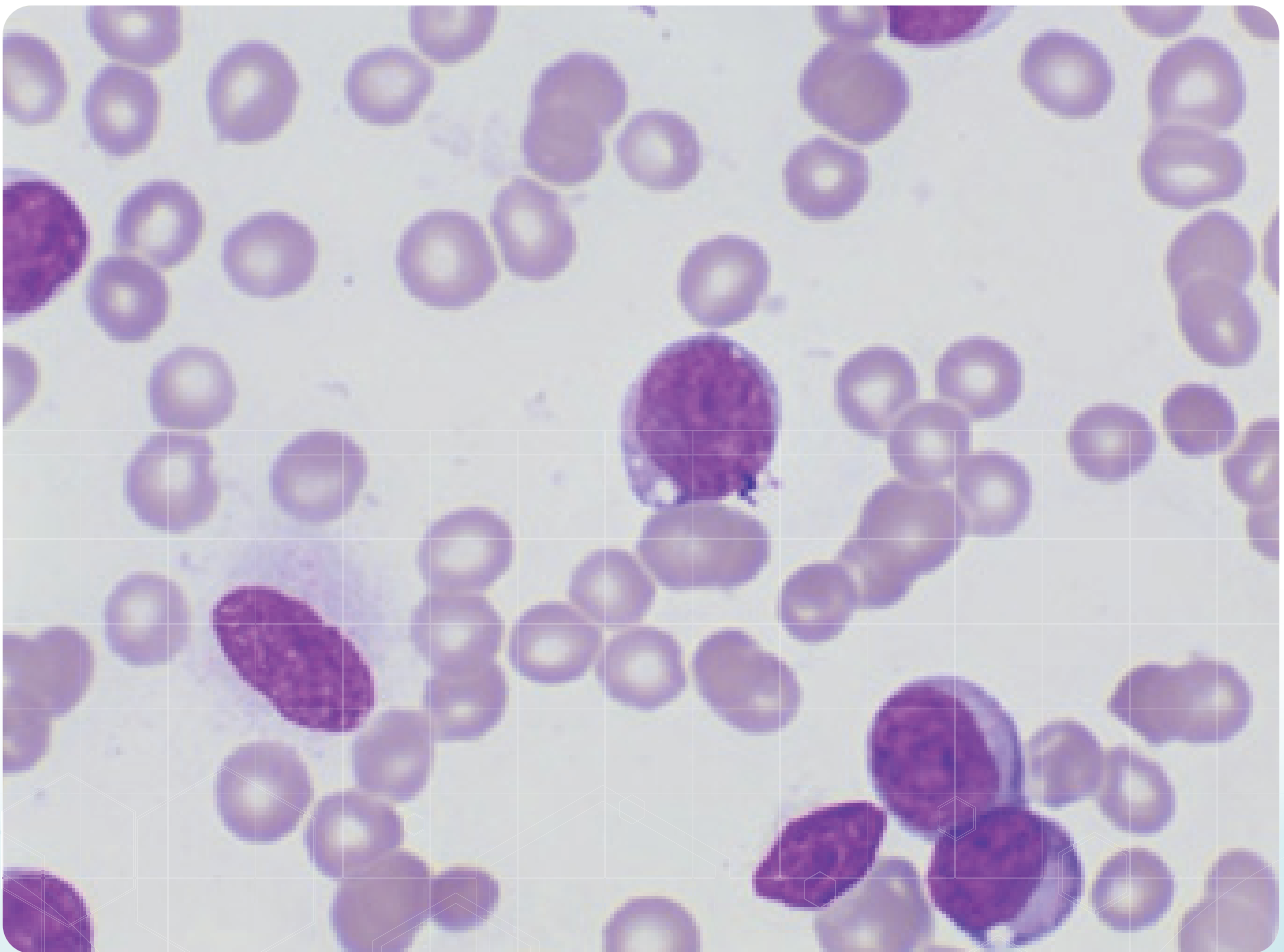


# BIPHENOTYPIC LEUKEMIA



Biphenotypic Leukemia the leukemia cells have marker for lymphoid cells and myeloid cells on their cell surface. They have markers for lymphoid cells, which are found in ALL (Acute Lymphoblastic Leukemia). They also have makers of myeloid cells, which are found in AML (Acute myeloid leukemia).

Biphenotypic Leukemia also known as a Mixed – Phenotype acute Leukemia (MPAL). This rare entity accounting for 2-5% of all acute Leukemia.





# BIPHENOTYPIC LEUKEMIA



Flow cytometry is commonly used to diagnose & type acute leukemia. Essential feature of Biphenotypic Leukemia is that cells express lineage specific myeloid marker as well as lineage specific T(or) – B- Lymphoid marker. Due to heterogeneity of this Biphenotypic Leukemia most of the clinical trials exclude patients from their clinical trials. There is no uniform treatment protocol has been established. Clinician often offer allogeneic stem cell transplant after induction therapy.

We have 69 years old female with accelerated hypertension presented with high WBC Count, peripheral smear suggestive of acute leukemia. Bone marrow aspiration cytology showed two distinct types of Blast cells. Flowcytometry positive for lineage marker. Cyto MPO, CytoCD3, Stem cell marker, CD117, CD38, HLADR, cyto TDT Others markers like CD7, CD13, CD33. Cytogenetic analysis of bone marrow aspirate revealed gain of chromosome4, comprehensive DNA Analysis by NGS method positive for FLT3-ITD mutation, in addition DNMT 3A Exon 14, WT 1 Exon 9 mutation detected. Then family & patient counselled & started on Induction therapy. Treating Biphenotypic Leukemia is challenging. Historically MPAL treated with ALL like regimen (or) AML like regimen (or) hybrid regimen combining both approaches. These types of regimen in older age group patients mortality risk is more than 50% during induction therapy.

We treated this patient with Hypo methylating agent and BCL-2 inhibitor.

During Induction therapy patient had differentiation syndrome, Neutropenic sepsis, Hypofibrinogenemia & finally blood parameters recovered. Post Induction therapy bone marrow aspiration showed measurable residual disease (MRD). Negative by Flowcytometry and molecular complete remission by NGS testing. Now patient is on maintenance therapy, treating acute leukemia in old age grouping patient is always challenging, long term survival in this age group is less than 10 percent. We approached this rare deadly disease in different way and found success.



**-Dr. Jeyasankar Subramanian, MBBS, MD, DrNB, MRCP**  
*Medical Oncologist*

# ADVANCEMENTS IN HYPOFRACTIONATED RADIOTHERAPY: REVOLUTIONIZING CANCER TREATMENT



## UNDERSTANDING HYPOFRACTIONATION:

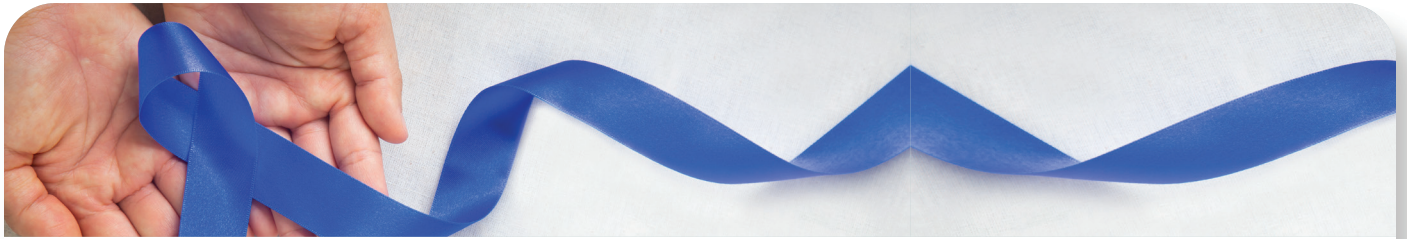
Radiotherapy has long been a cornerstone in cancer treatment, offering hope to millions of patients worldwide. Hypofractionation, a technique involving larger doses of radiation delivered over fewer sessions, has emerged as a game-changer in the field. This discussion explores the transformative impact of hypofractionation on cancer treatment, particularly in key sites such as the breast, rectum, prostate, lung, and liver, emphasizing the reduced treatment sessions it offers.

## BREAST CANCER:

Hypofractionated radiotherapy has revolutionized the management of breast cancer, offering significant benefits in terms of convenience and outcomes. With approximately 15-16 fractions compared to the conventional 25-30 fractions, hypofractionated schedules have become the standard of care for early-stage breast cancer. Accelerated partial breast irradiation (APBI) further enhances the feasibility of hypofractionation by targeting only the tumor bed, minimizing radiation exposure to surrounding tissues.





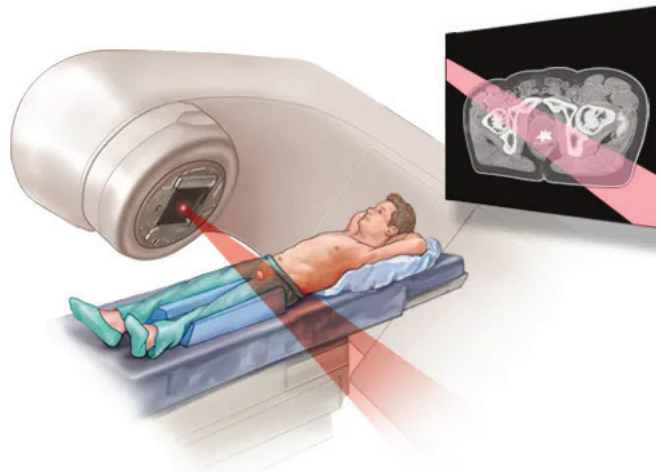


## RECTAL CANCER:

In the treatment of rectal cancer, hypofractionation has emerged as a promising approach to improve patient outcomes and quality of life. Short-course radiotherapy delivered over 5 days, with approximately 5 fractions, is as effective as conventional regimens lasting 5-6 weeks, with comparable rates of tumor control and reduced toxicity. This accelerated schedule not only expedites treatment but also allows for timely surgical intervention, leading to better oncological outcomes.

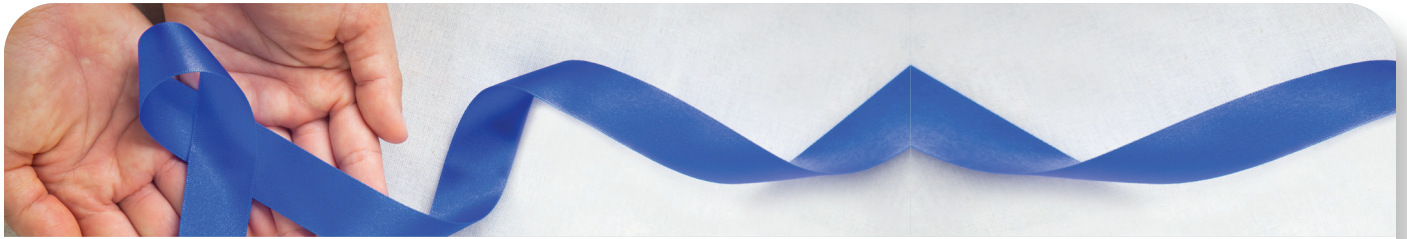
## PROSTATE CANCER:

Hypofractionated radiotherapy has reshaped the landscape of prostate cancer treatment, offering a viable alternative to conventional fractionation. With advancements in image guidance and radiation delivery techniques, hypofractionation has become increasingly precise and effective in targeting prostate tumors while minimizing side effects. Recent trials have demonstrated equivalent or superior outcomes with hypofractionated schedules, typically consisting of approximately 20-25 fractions, paving the way for shorter treatment courses and improved patient satisfaction.



## LUNG CANCER:

Hypofractionated radiotherapy has emerged as a promising option for the treatment of lung cancer, particularly in patients who are not candidates for surgery or have unresectable tumors. Stereotactic body radiotherapy (SBRT) delivers high doses of radiation to lung tumors with sub-millimeter accuracy, achieving excellent local control while minimizing damage to surrounding healthy lung tissue. Recent studies have shown that SBRT for early-stage non-small cell lung cancer (NSCLC) can be delivered in as few as 3-5 fractions, offering a non-invasive alternative to surgery with comparable outcomes.



## LIVER CANCER:

In the realm of liver cancer, hypofractionation holds promise as a non-invasive treatment modality for patients who are not candidates for surgery or transplantation. SBRT, a form of hypofractionation, delivers high doses of radiation to liver tumors with sub-millimeter accuracy, maximizing tumor control while minimizing damage to surrounding liver tissue. Recent advances in SBRT techniques, including motion management and dose escalation, have further improved outcomes in patients with hepatocellular carcinoma and liver metastases. Typically, SBRT for liver cancer involves 3-5 fractions, significantly reducing the treatment burden compared to conventional radiotherapy.

Treatment Site	Conventional Radiation Fractions	Hypofractionated Radiation Fractions	Difference
Breast	25-30	15-16	10-15 fewer fractions with hypofractionation
Prostate	39-45	20-28	11-25 fewer fractions with hypofractionation
Lung (early stage)	20-30	3-5	15-25 fewer fractions with hypofractionation
Rectal Cancer	25-28	5-15	10-23 fewer fractions with hypofractionation
Liver Cancer	25-30	3-8	17-27 fewer fractions with hypofractionation

## CONCLUSION:

Hypofractionated radiotherapy represents a paradigm shift in cancer treatment, offering shorter treatment durations, improved convenience, and comparable or superior outcomes compared to conventional fractionation. From breast and rectal cancer to prostate, lung, and liver cancer, hypofractionation has demonstrated its efficacy and versatility across various disease sites, with the added benefit of reduced treatment sessions. With ongoing research and technological advancements, hypofractionation continues to evolve, shaping the future of cancer care and providing hope for patients worldwide.



**-Dr. R. Deepak Ramamoorthy, MBBS, M.D, FIPM, MBA(HHSM)**  
*Clinical & Radiation Oncologist.*



# CASE REPORT:

## BENIGN IS NOT ALWAYS BENIGN: CASE REPORT OF ENDOVASCULAR SCLEROTHERAPY OF A HEPATIC HEMANGIOMA USING BLEOMYCIN



Our patient presented with vague right upper abdominal pain which was evaluated with CECT and found to have a partially exophytic hepatic hemangioma causing pain due to Glisson's capsule stretch. Exophytic hemangiomas can also rupture causing life threatening bleeding. Our case showcases endovascular management of the hemangioma with complete resolution of patient symptoms.

### OVERVIEW

Hepatic hemangiomas are benign liver tumors that can occasionally cause symptoms such as pain, fullness, or complications like hemorrhage.

Endovascular sclerotherapy using bleomycin is a minimally invasive procedure that aims to treat these symptomatic hemangiomas effectively.

### PROCEDURE

**Endovascular Access:** The procedure begins with catheterization via the common femoral artery, advancing a catheter to the hepatic artery supplying the hemangioma under fluoroscopic guidance.

**Bleomycin Injection:** 45IU of Bleomycin, an antineoplastic agent with sclerosing properties, is injected directly into the hemangioma. This injection leads to endothelial damage, thrombosis, and eventual fibrosis of the hemangioma, reducing its size and alleviating symptoms.

**Imaging Guidance:** Throughout the procedure, imaging techniques such as ultrasound or CT scans are employed to ensure precise delivery of the bleomycin to the hemangioma.

### ADVANTAGES

- **Minimally Invasive:** Less traumatic than surgical resection with a shorter recovery period.
- **Symptom Relief:** Effective in reducing hemangioma size and relieving symptoms. Our patient had pain relief on the next day itself with no pain recurrence on 1 year followup.
- **Suitability:** Can be performed on patients who are not good candidates for surgery due to comorbid conditions.



## CONSIDERATIONS

- **Pre-procedural Planning:** Detailed imaging studies with a arterial phase roadmap are necessary for proper assessment and planning.
- **Complication Monitoring:** Post-procedural monitoring is crucial to detect complications such as infection, bleeding, or liver dysfunction.
- **Long-term Follow-Up:** Regular follow-up is needed to evaluate the efficacy and check for recurrence.

## CONCLUSION

Endovascular sclerotherapy using bleomycin is an effective and minimally invasive option for treating symptomatic hepatic hemangiomas. It combines the advantages of targeted therapy with a favorable safety profile, making it a valuable treatment option for patients with symptomatic hemangiomas.



**-Dr. S. Kiran Kumar, MBBS, DNB (RD), FVIR, EBIR**  
*Interventional Radiologist*





## SUCCESSFUL ENDOVASCULAR TREATMENT OF HEMANGIOMA - ONE YEAR FOLLOW-UP

### Introduction and Patient Information

This report details the successful treatment of a hemangioma in a 45-year-old female patient, at Billroth Hospitals, Chennai. The case showcases the efficacy of endovascular intervention and the importance of collaborative medical care.

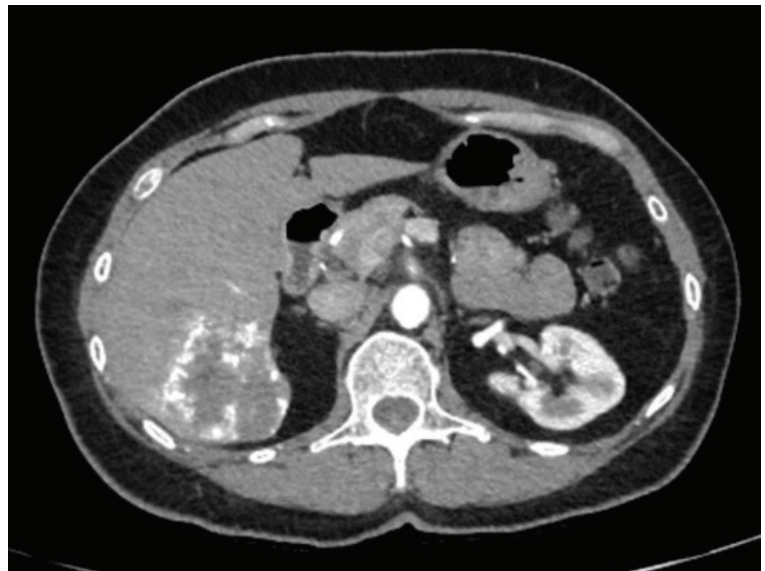
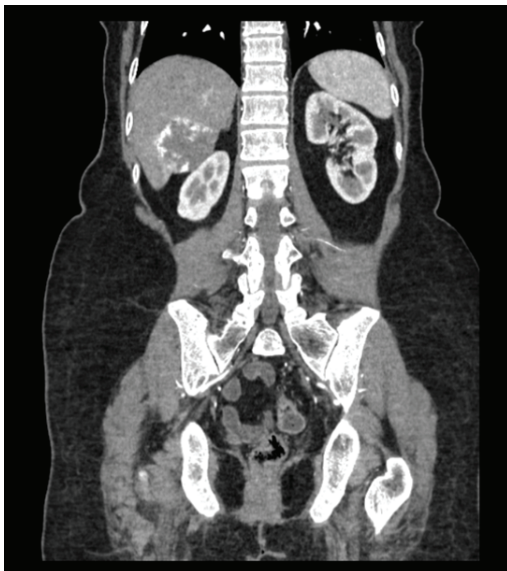
### Diagnosis and Treatment

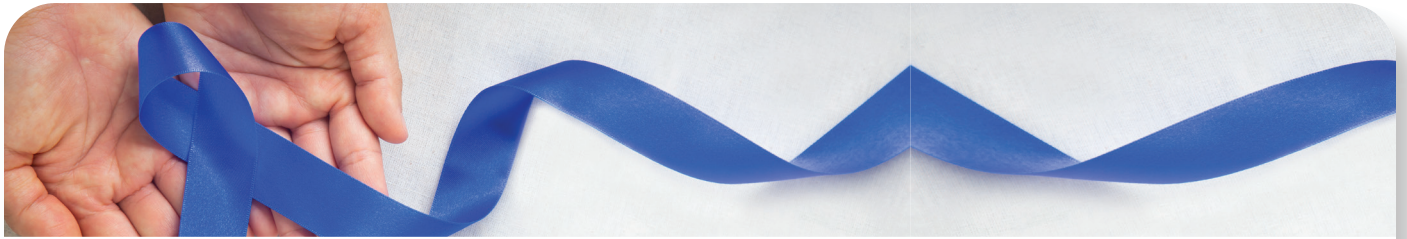
Initial diagnosis was made by Dr. Rajkumar Williams, with further evaluation by Dr. Sivaraj. They recognized the potential of endovascular intervention for this case, demonstrating the importance of accurate diagnosis and appropriate treatment selection.

Dr. S. Kiran Kumar performed the endovascular procedure on 11-07-2023. While specific details are not provided, the procedure likely involved selective angiography and embolization of the hemangioma's blood supply. Dr. Kiran Kumar noted initial challenges during the procedure, which were successfully overcome.

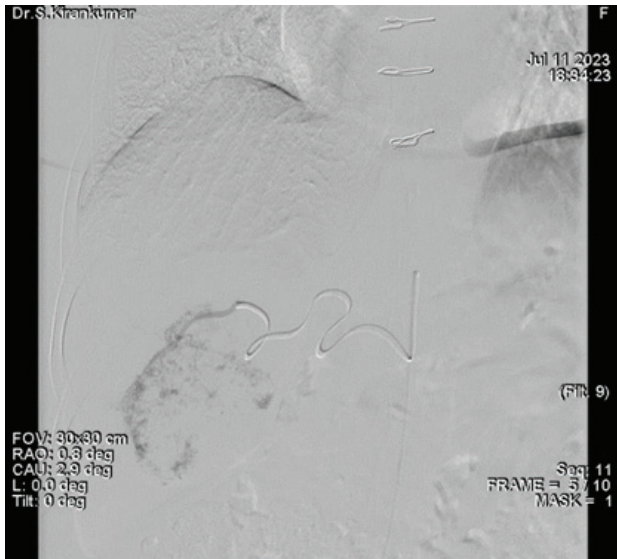
### Pre Procedure images:

**A large hemangioma in the right lobe of liver with exophytic extension.**

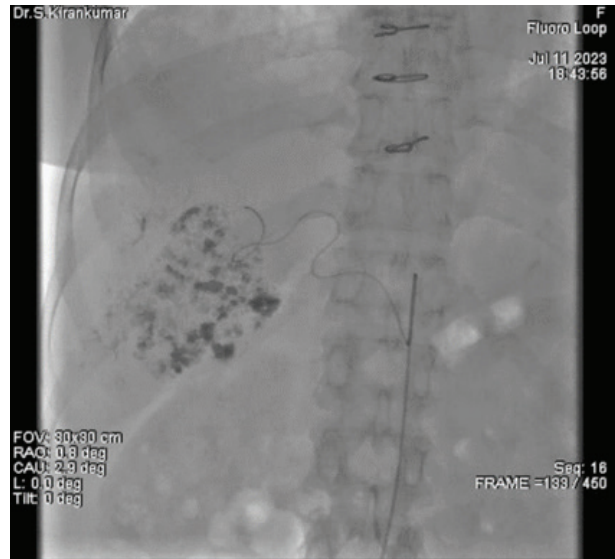




### Intraprocedural Images:



**SUPERSELECTIVE MICROCATHETER ANGIOGRAM SHOWING MARKEDLY VASCULAR HEMANGIOMA.**



**POST EMBOLIZATION WITH LIPIODOL-BLEOMYCIN COMBINATION.**

### Follow-up and Outcomes

At the one-year follow-up, Mrs. Jennifer reported complete resolution of symptoms, no further enlargement of the treated area, and significant cosmetic improvement. She expressed high satisfaction with the treatment outcome.

### Discussion and Conclusion

This case demonstrates the successful management of an adult hemangioma through endovascular intervention, with excellent results at one-year follow-up. Key factors contributing to the success include:

1. Accurate initial diagnosis by Dr. Rajkumar Williams and Dr. Sivaraj
2. Recognition of endovascular intervention's potential for this case
3. Skilled execution of the procedure by Dr. S. Kiran Kumar
4. Comprehensive post-procedure care and follow-up
5. Clear communication and patient education throughout the treatment process

The collaborative effort of multiple specialists, coupled with advanced interventional techniques, led to a positive outcome and high patient satisfaction. As stated in the original information, "The lion's share of the credit for this case goes to Dr. Rajkumar Williams sir and Dr. Sivaraj sir who realized the treatment potential of endovascular intervention for this case." Their insight, combined with Dr. S. Kiran Kumar's technical expertise, resulted in an optimal outcome for the patient.

This case report serves as a valuable addition to the medical literature, providing insights into the management of adult hemangiomas and highlighting the potential of endovascular techniques in treating these complex vascular lesions. It underscores the importance of a multidisciplinary approach, accurate diagnosis, appropriate use of advanced techniques, and comprehensive patient care in achieving successful outcomes in challenging cases.



# THE ROLE OF PALLIATIVE CARE IN ONCOLOGY

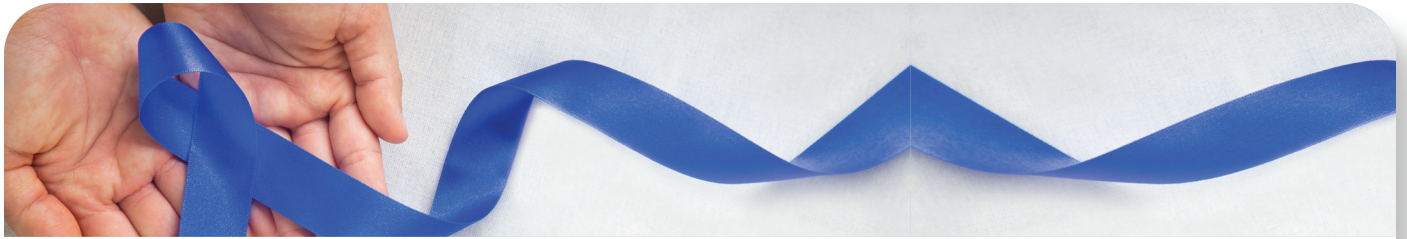


## WHAT IS PALLIATIVE CARE?

Palliative care is a specialty of medicine and nursing that focuses on controlling symptoms, relieving suffering, and providing support for patients with any serious illnesses, including cancer. Palliative care can help patients with any type or stage of cancer. Patients can receive palliative care while also receiving cancer treatments, such as chemotherapy, radiation, or surgery. Patients who receive palliative care often report improved quality of life. Patients who receive palliative care early in their disease course may live longer than if they did not receive palliative care, or received it later in the disease course.

Palliative care teams are usually made up of physicians, nurses, social workers, chaplains, pharmacists, and sometimes include physician assistants, nutritionists, as well as physical and occupational therapists. They work in many settings, including hospitals, outpatient clinics, and sometimes in nursing homes or patient homes.





## WHO SHOULD RECEIVE PALLIATIVE CARE, AND WHEN?

Palliative care may be appropriate for you if:

You have advanced cancer, or

You experience difficult-to-treat pain or other symptoms, or

You or your family need more help coping with the diagnosis, or

You or your family need help deciding about further treatments.

Patients and oncologists work together to form treatment plans. Oncologists are trained to manage common symptoms, such as pain and nausea, and to provide emotional support. Sometimes the burden of the disease is high and requires more time and skill than an oncologist can provide. Palliative care specialists can step in and use their expertise to help manage distressing symptoms and provide emotional support.



## WHAT ARE THE BENEFITS OF PALLIATIVE CARE?

Together with your oncologist, palliative care can:

- Help manage previously difficult-to-treat symptoms from the cancer or treatment side effects, such as pain, constipation, and shortness of breath.
- Guide patients and their caretakers through the course of their disease and help with what to expect at each stage.
- Provide practical, emotional, and spiritual support for the patient and their family.
- Access specialized services, such as support groups and home supports.

Help you determine a spokesperson in the event that you are too sick to make medical decisions, and assist with medical decisions when the cancer is difficult to treat.



# CORPORATE HEALTH TALK HIGHLIGHTS: GASTRO & UROLOGY SCREENING AT BILLROTH HOSPITALS

We recently hosted an enlightening corporate health talk focusing on the critical areas of gastroenterology and urology screening. Our esteemed experts shared invaluable insights into the rising cases of digestive and urological disorders, emphasizing the importance of regular health checkups. Here are the key takeaways:

## ***Rising Digestive Disorders:***

**Acid Reflux:** Increasingly common due to lifestyle and dietary factors.

**Irritable Bowel Syndrome (IBS):** Affects a significant portion of the population, causing discomfort and impacting daily life.

**Gastrointestinal (GI) Cancers:** Early detection is crucial for effective treatment and better outcomes.

## **Urological Issues:**

**Prostate Problems:** Common among men, especially with advancing age, and can significantly affect quality of life.

**Urinary Tract Infections (UTIs):** Affect both men and women, leading to discomfort and potential complications if untreated.

## **KEY TAKEAWAYS:**

- **Regular Screenings are Crucial:** Regular checkups help detect potential issues early, leading to timely intervention and better health outcomes.
- **Early Detection Saves Lives:** Identifying conditions early increases the chances of successful treatment, especially for serious conditions like GI cancers and prostate problems.
- **Comprehensive Health Checkups are Vital:** A thorough health checkup can uncover hidden health issues, ensuring that you receive appropriate care and management.

## **Don't Ignore Your Gut and Urinary Health!**

**Your digestive and urinary health are vital to your overall well-being. Don't wait for symptoms to worsen. Schedule a comprehensive checkup at Billroth Hospitals today.**

**Invest in your health today for a healthier tomorrow!**

# CORPORATE HEALTH TALK HIGHLIGHTS: GASTRO & UROLOGY SCREENING AT BILLROTH HOSPITALS





# CME - THIRUVANNAMALAI



The Indian Medical Association, in collaboration with Billroth Hospitals, Chennai, hosted a Continuing Medical Education (CME) session on June 16th at Hotel Himalayaa, Tiruvannamalai. This event, part of the Physicians Connect Series, aimed to keep medical professionals informed about recent advancements and best practices.

Esteemed experts led the session: Dr. Deepak discussed recent advances in oncology, focusing on the transition from care to cure; Dr. Kumaragurubaran presented on laparoscopic colorectal surgery, emphasizing less invasive techniques; and Dr. J. Pablo Neruda explored the diabetic foot from a plastic surgery viewpoint. The event drew healthcare professionals keen on updating their knowledge and skills.





# CME - THIRUVANNAMALAI

Attendees benefited from the insights shared, gaining a deeper understanding of innovative treatment protocols and emergency management in oncology, diabetic foot care, and gastroenterology. The CME provided an excellent platform for professional development and knowledge exchange.

The session was a resounding success, highlighting Billroth Hospitals' dedication to continuing medical education. Such initiatives are crucial for enhancing the expertise of healthcare professionals and ultimately improving patient outcomes through better-informed medical practice.







Billroth  
Hospitals

# Spreading HOPE

A time dedicated to raising awareness about this rare and often misunderstood group of cancers. Sarcomas can occur in the bones and soft tissues of the body, affecting people of all ages. Early detection and specialized care are crucial in improving outcomes for those affected by sarcoma.

At **Billroth Hospitals**, our team of dedicated professionals is committed to providing the highest level of care for our patients.

## Our specialized doctors,



**Dr. L. Padmanabhan**  
MBBS, MD  
Head & Senior Consultant  
Radiation Oncologist



**Dr. D. Saritha**  
MBBS,DMRT,M.D  
Senior Clinical & Radiation  
Oncologist



**Dr. Deepak Ramamoorthy**  
MBBS, M.D, FIPM, MBA(HHSM)  
Clinical & Radiation Oncologist



**Dr. S. Jeyasankar**  
MBBS, MD, DRNB, MRCP  
Medical Oncologist



**Dr. X. Gerald Anand Raja**  
MBBS,M.S.,(Gen.Surg),D.N.B.,M.Ch(Surgical Oncology)  
Surgical Oncologist



Sarcoma  
Awareness Month  
JULY 2024



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