BATRA HOSPITAL & MEDICAL RESEARCH CENTRE
HEALTH & HAPPINESS FOR ALL

निरामयम् NIRAMAYAM

Issue: 2 | April-June 2025 | www: facebook.com/BatraHospitals | /c/BatraHospitals | www.batrahospitaldelhi.org

SBRT LUNG CASE HISTORY

Presenting a case of CA colon post chemotherapy and surgery. A PET CT scan during follow-up showed a lesion in the right lung (oligometastatic disease). The patient was scheduled for six fractions of SBRT lung with the goal of curing the condition.

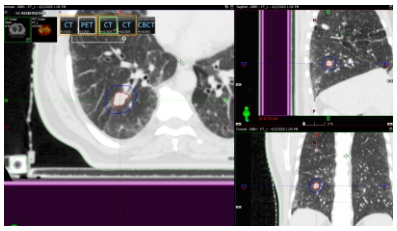


Figure 1: shows the axial, coronal, and sagittal sections of the lesion in the lower lobe of the right lung.

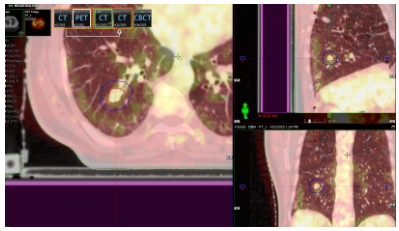


Figure 2: For accurate delineation, the PET CT scan was registered with CT simulation pictures.

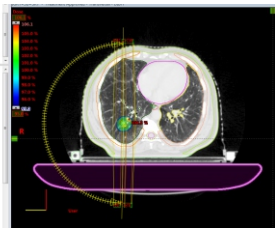


Figure 3: Two arcs are used in the VMAT technique to create the treatment plan.

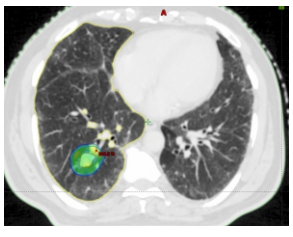
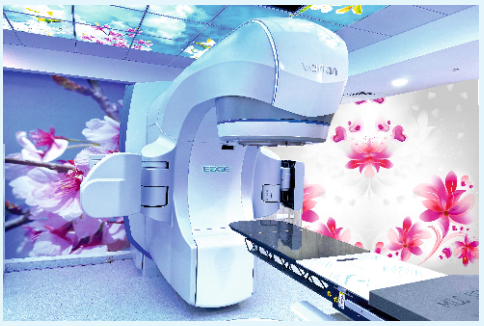


Figure 4: Dose color wash demonstrates that the treatment was precisely delivered to the target while sparing the healthy lung in the region.

THE VARIAN EDGE SYSTEM



Radiotherapy has advanced significantly—from basic 2D techniques to precise, image-guided treatments. Linear accelerators have reduced treatment duration from 6-8 weeks to 4 weeks. SBRT (stereotactic body radiotherapy) gives therapy in 3-5 session and SRS (stereotactic radiosurgery) can treat in a single session. Fast dose rates deliver daily treatment in 5 minutes. Latest delivery techniques are **IMRT, IGRT, VMAT, SBRT, and SRT.** Now Batra Hospital has acquired a **Varian Edge system**, which delivers highly accurate and effective cancer treatment and is one of the best in the world.

Key features include:

- **Frameless SRS:** Painless, single fraction treatments.
- **HyperArc for precise** targeting with minimal exposure to healthy tissue.
- **IMRT including** large-field IMRT, IGRT & RapidArc for complex treatment plans.
- **6 Degree couch freedom system** for submillimetre accuracy.
- **Highest dose rate (2400 MU/min)** for faster sessions.
- **HD-120 multileaf collimator** for treating small brain tumors.
- **All-in-one baseplate** for patient comfort and precision.

Our hospital has 40 years of expertise in cancer care, where 40,000+ patients were treated using advanced radiotherapy techniques.

Consult with our Oncologist

Dr. Irfan Bashir
HOD, Radiation Oncology
Batra Cancer Centre

OPD Timing: Mon & Thur: 9 am to 5 pm

A MONUMENTAL VICTORY OVER ONE OF THE WORLD'S LARGEST RETROPERITONEAL LIPOSARCOMAS

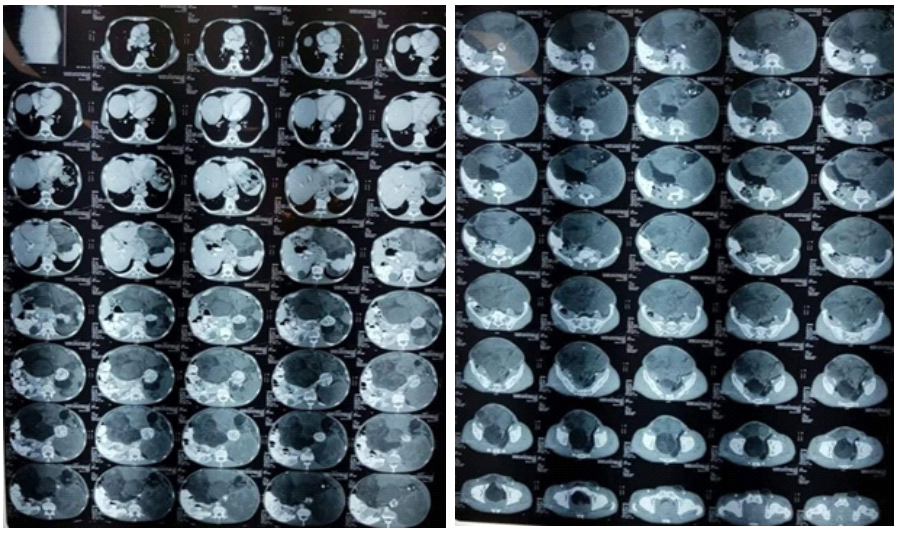
In a groundbreaking feat of surgical precision, Dr. Sudip Raina and his dedicated surgical oncology team successfully performed the resection of one of the largest retroperitoneal liposarcomas ever recorded. This exceptional case is recognized as the sixth largest of its kind reported globally and the second largest in India, underscoring its significance in the global medical landscape.

Complete surgical resection is the main cornerstone of treatment and favorable prognosis. The tumor, an enormous retroperitoneal mass, measuring 43×38 cm and weighing nearly 15 kilograms. Despite the daunting size and complex anatomical involvement, the surgical team achieved an R-0 resection—complete removal of the tumor with no microscopic traces of cancer at the margins to minimize the risk of recurrence and to improve the patient's prognosis.

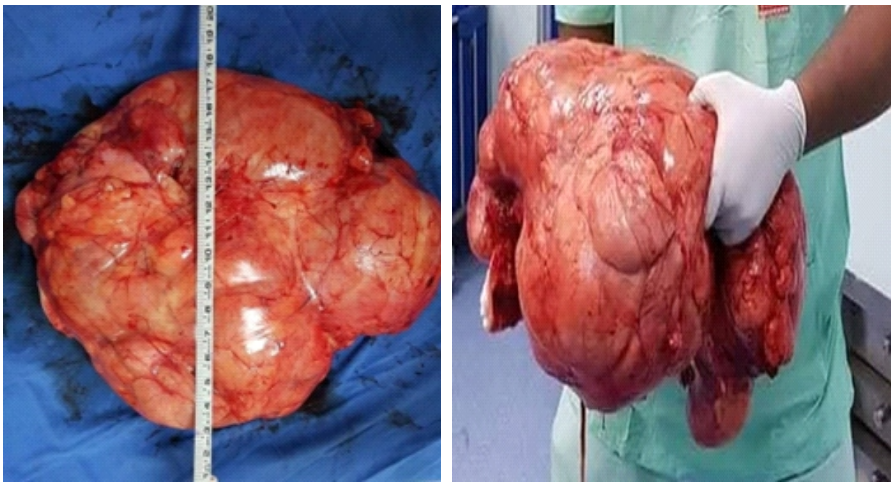
Due to the tumor's extensive invasion, the left kidney was removed. This added a significant layer of complexity to an already high-risk procedure. Yet, the operation was completed successfully, reflecting the extraordinary coordination, skill, and commitment of the surgical team.

This surgical triumph not only sets a benchmark in oncologic surgery but also brings hope to patients battling rare and aggressive tumors. It highlights the expertise and capabilities of our surgeons in managing highly complex cancer cases.

CT SCAN SHOWING LARGE RETROPERITOENAL MASS



43 X 38 CM LARGE RETROPERITOENAL MASS AFTER SURGICAL EXICISION



Consult with our Oncologist

Dr. Sudip Raina
Director &
Senior Consultant,
Surgical Oncology
Batra Cancer Centre

OPD Timing:
Mon, Wed & Sat:
9.00 am to 5.00 pm

THE ERA OF IMMUNOTHERAPY IN CANCERS: A TRANSFORMATIVE REVOLUTION IN ONCOLOGY

Cancer care has undergone a paradigm shift, moving beyond traditional treatment modalities like surgery, chemotherapy, and radiation. At the forefront of this revolution is **immuno-therapy**, a treatment approach that activates and harnesses the body's own immune system to recognize cancer cells and destroy them. With increasing precision and fewer side effects, immunotherapy is transforming the oncology landscape and offering hope to patients once considered untreatable.

What is Immunotherapy?

Immunotherapy comprises treatments designed to enhance or restore the immune system's ability to fight cancer. Unlike chemotherapy—which targets all rapidly dividing cells, including healthy ones immunotherapy offers a more targeted approach. It either amplifies the immune system's response or removes the barriers that prevent it from recognizing cancer cells as threats.

Types and Mechanisms

The most widely recognized form of immunotherapy is **immune checkpoint inhibition**. Drugs like *nivolumab*, *pembrolizumab*, and *atezolizumab* block checkpoint proteins such as PD-1, PD-L1, and CTLA-4. These proteins typically act as "brakes" on T-cells to prevent autoimmunity. By blocking them, these therapies release the brakes, allowing T-cells to attack cancer cells more effectively. This has improved outcomes in cancer such as melanoma, lung cancer, renal cell carcinoma, and head and neck cancer.

Another cutting-edge technique is **CAR-T cell therapy**. Here, a patient's T-cells are genetically engineered to express receptors that specifically target cancer cells. Though currently used in blood cancers like certain leukemias and lymphomas,this therapy exemplifies the personalized approach in modern oncology. Other evolving modalities include **cancer vaccines** and **cytokine therapies** such as interleukin-2, which further stimulate immune activity.

A Game-Changer in Multiple Cancers

Immunotherapy has radically changed outcomes in many previously incurable cancers. For instance, patients with **metastatic melanoma**—once associated with a poor prognosis—are now experiencing long-term remissions. In **non-small cell lung cancer (NSCLC)**, checkpoint inhibitors have become standard first-line therapies in both locally advanced and metastatic stages. Even traditionally resistant malignancies such as **triple-negative breast cancer** and **bladder cancer** have seen improved response rates with immunotherapy.

Challenges and Future Prospects

Despite its promise, immunotherapy is not universally effective. Only a subset of patients respond, and some develop resistance over time. Biomarker research like identifying tumors with high PD-L1 expression or microsatellite instability (MSI)—is underway to predict who will benefit most. Moreover, combining immunotherapy with chemotherapy, targeted therapy, or radiation holds potential to enhance efficacy and overcome resistance.

Conclusion

Immunotherapy has redefined the cancer treatment. It represents more than a therapeutic tool—it signifies a shift in oncology's philosophy, empha-sizing the empower-ment of the body's own defenses rather than external assault. While challenges remain, ongoing research, improved biomarkers, and increasing accessi-bility point to a future where immunotherapy could benefit a much broader population with a better quality of life.

Consult with our Oncologist

Dr. Nikhil Himthani
Senior Consultant,
Medical Oncology
Batra Cancer Centre

OPD Timing:
Mon. to Sat.
9.00 am to 4.00 pm

CME & EVENTS

Batra Hospital celebrates International Nursing Day
at the LBB College of Nursing Auditorium
on May 12, 2025.

Batra Hospital organized a cardiology health camp
at BLW Railway in Varanasi on May 9, 2025,
followed by a Continuing Medical Education session with
at the BLW Railway Conference Hall in Varanasi
on May 10, 2025.

Our patient TESTIMONIAL

Google Review

Karunanidhi Rai ★★★★★

The nursing care and administration are very well managed, and they are very caring and well-behaved. Sister Bhawana and Sister Biji are very helpful and caring. I also thank my treating doctors, especially Dr. Sanjiv Sharma, Cardiology and his team, and all supporting staff. Thank you a lot .

Happy Patient of
Dr. Sanjiv Sharma
HOD, Interventional Cardiology

Google Review

Kuldeep S. Chaprana ★★★★★

I recently visited Batra Hospital for my mom's treatment. She was treated by Dr. Biplab, who is very professional and full of positivity. Ward 5A—Sister's are very caring and efficient nurses who gave very humane care. Special thanks to Ms. Preeti (dietitian), who ensured a healthy diet as per the patient's taste to keep her motivated for recovery. Keep up the good work.

Happy Patient of
Dr. Biplab Das
Director Neurology &
Interventional Neuroradiology