50 YEARS
EXCELLENCE IN RADIATION ONCOLOGY

SOUVENIR

ASSOCIATION OF RADIATION ONCOLOGISTS OF INDIA
UPAROI SOCIETY

37th UPAROICON 2026

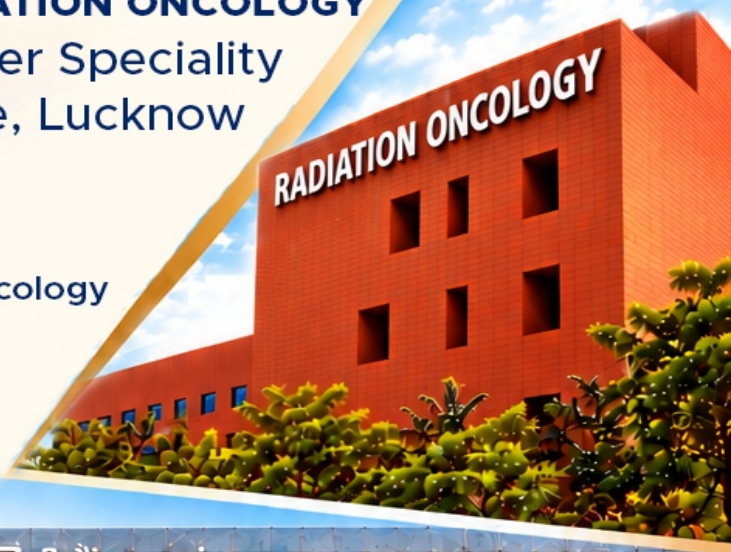
LUCKNOW

Under the aegis of the Association of Radiation Oncologists of India (AROI) UP Chapter

Organised by

DEPARTMENT OF RADIATION ONCOLOGY

Kalyan Singh Super Speciality Cancer Institute, Lucknow



Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology



31st October - 1st November, 2026

www.uparoicon2026.in

आनंदीबेन पटेल
राज्यपाल, उत्तर प्रदेश



सत्यमेव जयते

जन भवन
लखनऊ - 226 027
15 अक्टूबर, 2026

संदेश

मुझे यह जानकर प्रसन्नता हुई कि कल्याण सिंह सुपर स्पेशियलिटी कैंसर इंस्टीटयूट, लखनऊ के रेडिएशन ऑन्कोलॉजी विभाग द्वारा 31 अक्टूबर एवं 1 नवम्बर, 2026 को लखनऊ में उत्तर प्रदेश एसोसिएशन ऑफ रेडिएशन ऑन्कोलॉजिस्ट्स के 37वें वार्षिक सम्मेलन 'UPAROICON-2026' का आयोजन 'Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology' थीम पर किया जा रहा है।

यह सम्मेलन कैंसर चिकित्सा के क्षेत्र में आधुनिक तकनीक, स्टीक निदान, उन्नत उपचार पद्धतियों तथा रोगी–केंद्रित दृष्टिकोण को प्रोत्साहित करने की दिशा में एक महत्वपूर्ण पहल है। मुझे विश्वास है कि इस सम्मेलन से देश में कैंसर चिकित्सा के क्षेत्र में नई संभावनाओं के द्वार खुलेंगे।

मैं इस महत्वपूर्ण सम्मेलन के सफल आयोजन की कामना करती हूँ।

आनंदीबेन

(आनंदीबेन पटेल)

दूरभाष : 0522-2236497 फैक्स : 0522-2239488 ईमेल : hgovup@gov.in वेबसाइट : www.upgovernor.gov.in

ब्रजेश पाठक
उप मुख्यमंत्री

कार्यालय कक्ष संख्या–99, 100, मुख्य भवन,
विधान सभा सचिवालय
दूरभाष– 0522–2238088 (का0)
0522–2239999 (आ0)

लखनऊः दिनांक 23.11.2026



शुभकामना संदेश

मुझे यह जानकर अत्यंत हर्ष एवं गौरव की अनुभूति हो रही है कि कल्याण सिंह सुपर स्पेशियलिटी कैंसर इंस्टीट्यूट, लखनऊ के रेडिएशन ऑन्कोलॉजी विभाग द्वारा 31 अक्टूबर एवं 1 नवंबर 2026 को लखनऊ में उत्तर प्रदेश एसोसिएशन ऑफ रेडिएशन ऑन्कोलॉजिस्ट्स के 37वें वार्षिक सम्मेलन UPAROICON 2026 का आयोजन किया जा रहा है।

"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology" विषय पर आधारित यह सम्मेलन कैंसर चिकित्सा के क्षेत्र में आधुनिक तकनीक, सटीक उपचार पद्धतियों तथा रोगी.केंद्रित चिकित्सा सेवाओं को प्रोत्साहित करने की दिशा में एक महत्वपूर्ण पहल है। यह सम्मेलन देश के प्रतिष्ठित कैंसर विशेषज्ञों, चिकित्सकों एवं शोधकर्ताओं को अपने अनुभवों, नवीनतम अनुसंधानों और वैज्ञानिक उपलब्धियों को साझा करने का सशक्त मंच प्रदान करेगा। मेरा दृढ़ विश्वास है कि इस प्रकार के वैज्ञानिक एवं शैक्षणिक आयोजन कैंसर जैसी गंभीर बीमारी के उपचार में नवाचार, अनुसंधान और उत्कृष्ट चिकित्सा पद्धतियों को बढ़ावा देने के साथ.साथ मरीजों को बेहतर, सुलभ एवं गुणवत्तापूर्ण स्वास्थ्य सेवाएँ उपलब्ध कराने में महत्वपूर्ण भूमिका निभाते हैं।

इस गौरवपूर्ण अवसर पर सम्मेलन की स्मारिका के प्रकाशन हेतु मेरी हार्दिक शुभकामनाएँ एवं मंगलकामनाएँ। मैं आशा करता हूँ कि यह सम्मेलन चिकित्सा विज्ञान की नवीन संभावनाओं को नई दिशा प्रदान करेगा तथा कैंसर उपचार के क्षेत्र में ज्ञान, कौशल और अनुभव के आदान.प्रदान को प्रोत्साहित करेगा।

मैं UPAROICON 2026 के सफल, सार्थक एवं प्रेरणादायी आयोजन की कामना करता हूँ तथा आयोजन समिति, समस्त चिकित्सकों, वैज्ञानिकों एवं प्रतिभागियों को हार्दिक बधाई एवं शुभकामनाएँ प्रेषित करता हूँ।

(ब्रजेश पाठक)

एस0 पी0 गोयल
मुख्य सचिव
S.P. Goyal
Chief Secretary

उत्तर प्रदेश शासन
लोक भवन, लखनऊ - 226001
Government of Uttar Pradesh
Lok Bhawan, Lucknow-226001

दिनांक: 21 अक्टूबर, 2026

सन्देश

मुझे यह जानकर प्रसन्नता हुई कि कल्याण सिंह सुपर स्पेशिऐलिटी कैन्सर इन्स्टीट्यूट, लखनऊ के रेडिएशन ऑन्कोलॉजी विभाग द्वारा उत्तर प्रदेश ऐसोसिएशन ऑफ रेडिएशन ऑन्कोलॉजिस्ट्स के 37वें वार्षिक सम्मेलन **UPAROICON 2026** का आयोजन दिनांक 31 अक्टूबर एवं 1 नवम्बर, 2026 को लखनऊ में किया जा रहा है।

कैन्सर आज चिकित्सा जगत के समक्ष एक गम्भीर चुनौती है; इसके प्रभावी निदान, उपचार एवं नियन्त्रण के लिए आधुनिक चिकित्सा तकनीकों के साथ संवेदनशील, सुलभ एवं गुणवत्तापूर्ण स्वास्थ्य सेवाओं का समन्वय अत्यन्त आवश्यक है।

"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology" विषय पर आधारित यह सम्मेलन कैन्सर चिकित्सा के क्षेत्र में नवीनतम वैज्ञानिक अनुसन्धानों, आधुनिक तकनीकों, सटीक उपचार पद्धतियों तथा रोगी-केन्द्रित चिकित्सा सेवाओं को प्रोत्साहित करने की दिशा में एक महत्वपूर्ण पहल है। ऐसे शैक्षणिक एवं वैज्ञानिक आयोजन चिकित्सा विशेषज्ञों के मध्य ज्ञान, अनुभव और नवाचारों के आदान-प्रदान को सुदृढ़ करने के साथ-साथ कैन्सर उपचार की गुणवत्ता एवं प्रभावशीलता में सुधार लाने में महत्वपूर्ण भूमिका निभाते हैं।

मुझे विश्वास है कि इस सम्मेलन में देश के प्रख्यात कैन्सर विशेषज्ञों एवं चिकित्सा वैज्ञानिकों के विचार-विमर्श से नई सम्भावनाओं के द्वार खुलेंगे तथा कैन्सर से पीड़ित रोगियों को बेहतर उपचार उपलब्ध कराने के प्रयासों को नई दिशा प्राप्त होगी।

इस सम्मेलन के सफल आयोजन एवं स्मारिका के उद्देश्यपूर्ण प्रकाशन के लिए मेरी हार्दिक शुभकामनाएं।

(एस.पी.गोयल)

Office Address: Room No. 101'B' Wing, Lok Bhawan, U.P. Secretariat, Lucknow-226001
Tel.: 0522-2289212, 2289296; Fax:0522-2239283; Resi.: 0522-2239461, 2237299; Email: csup@nic.in
Website: https://up.gov.in/

Message from Patron-in-Chief



Prof. M.L.B. Bhatt
Director
Kalyan Singh Super Speciality Cancer Institute
Lucknow, Uttar Pradesh

It is my great pleasure to welcome you to the 37th Annual Conference of the **Uttar Pradesh Association of Radiation Oncologists of India (UPAROICON 2026)**, being organized by the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute (KSSSCI), Lucknow, on 31st October and 1st November 2026.

This conference reflects our shared commitment to advancing radiation oncology and improving the lives of patients affected by cancer. The theme of this year's conference, **"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"** highlights the importance of combining scientific innovation, technological advancements, and compassionate care to achieve better treatment outcomes. I am delighted that this gathering will bring together distinguished professionals to exchange knowledge, share experiences, and explore new horizons in cancer management.

Over the course of this conference, I hope the scientific deliberations will inspire fresh perspectives, encourage meaningful collaborations, and contribute to the continued advancement of oncology. Such interactions are invaluable in translating research and innovation into improved clinical practice and better patient care, while inspiring young oncologists to pursue excellence in their professional and academic endeavours.

Beyond the scientific programme, I hope you will enjoy the rich cultural heritage and renowned hospitality of Lucknow, a city celebrated for its history, traditions, and warmth.

I extend my sincere appreciation to the organizing committee for its dedicated efforts in bringing together the oncology fraternity and promoting meaningful scientific deliberations.

Once again, I warmly welcome you all to Lucknow and wish 37th UPAROICON 2026 great success. Let us work together to advance cancer care and shape a brighter future for our patients.



(Prof. M.L.B. Bhatt)
Director

Message from AROI-Chair



Prof. Manoj Gupta
Chair, AROI

I am happy to know that 37th UPAROICON is being organized in the city of Nawabs at KSSSCI by department of Radiation Oncology. The theme of the conference is related with integration of technology and precision with patient-centric oncology.

The technology of radiation delivery has advanced tremendously over a period of last three decades. It was started with a crude method of anatomical landmark-based radiation delivery and slowly progressed to real anatomy-based target delineation and precision with sub-millimetre accuracy. The basic principle of radiotherapy to deliver maximum doses to target and minimum doses to surrounding normal tissue is actually achieved in recent time only with technological advancement like IMRT, IGRT, SRS, SBRT , and adaptive radiotherapy. But remember that in this era of modern technology and AI, we should not risk losing sight of the human being lying on the treatment couch. We should remember that we are not treating the computer screen showing us the excellent dose distribution but it is the human being who is scared, anxious, and worried not only about his/her disease but about his/her family too. We should never forget the significant effect of human touch which play the most important role in the healing process along with technology and precision.

I am sure that the scientific deliberations in two days meeting will immensely benefit the participant and will refine their clinical practice.



(Prof Manoj Gupta)
Vice President, Federation of Asian Organisations for Radiation Oncology
Chair, Association of Radiation Oncologists of India
Director of Research & Integrative Medicine
Professor of Radiation Oncology
Himalayan Institute of Medical Sciences,
Jolly Grant, Dehradun
Ex Dean & HOD Radiation Oncology
AIIMS, Rishikesh

Message from AROI-President



Prof. Surendra Nath Senapati
President, AROI

Dear Colleagues,

It is a distinct honour and pleasure to extend warm greetings to all delegates, faculty and guests attending the **37th UPAROICON 2026**, organized by the **Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow**, on **31 October–1 November 2026**.

As our national association, **AROI, celebrates its Golden Jubilee**, we honour five decades of scientific endeavour, professional fellowship and service to patients with cancer. In this milestone year for AROI, the 37th UPAROICON offers a valuable opportunity to carry forward that legacy through shared learning and collaboration.

The conference theme, **"Integrating Technology, Precision & Patient-Centric Oncology,"** reflects the aspirations of our specialty. The true value of innovation lies in improving outcomes, preserving quality of life, and meeting each patient's individual needs. Scientific precision must remain guided by clinical wisdom, compassion and respect for human dignity.

I trust that the scientific deliberations will encourage thoughtful debate, strengthen collaboration across Uttar Pradesh and neighbouring states, and inspire young colleagues to pursue excellence in clinical care, teaching and research.

On behalf of AROI, I warmly congratulate the **AROI Uttar Pradesh Chapter**, the host institution and the entire organizing team for their dedication. May this gathering renew our shared commitment to making high-quality, compassionate cancer care accessible to all.

I convey my heartfelt wishes for the grand success of the 37th UPAROICON 2026 and wish all participants an enriching scientific experience and a memorable stay in Lucknow.

Warm regards,

Snsenapath

(Prof. Surendra Nath Senapati)
President
Association of Radiation Oncologists of India (AROI)

Message from AROI-Secretary General



Dr. V. Srinivasan
M.D., F.I.P.M., F.I.C.R.O
Secretary General, AROI

It gives me immense pleasure to extend my warm greetings and best wishes to the organising team and delegates of the **37th Annual Conference of the Association of Radiation Oncologists of Uttar Pradesh (UPAROICON 2026)**, being held on 31st October and 1st November 2026 at Lucknow.

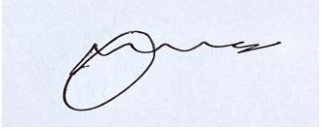
The theme, ***"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"*** is both timely and relevant in the rapidly evolving landscape of cancer management. With remarkable advances in radiation delivery, precision medicine, artificial intelligence, and multidisciplinary cancer care, radiation oncology continues to redefine treatment outcomes while striving to improve patients' quality of life.

The **Association of Radiation Oncologists of India (AROI)** remains dedicated to advancing the specialty through academic excellence, research, professional collaboration, and the continuous development of young radiation oncologists. We believe that meaningful progress in cancer care can be achieved through collective efforts, knowledge sharing, and the integration of scientific innovation with the needs and aspirations of our patients.

UPAROICON provides an excellent platform for distinguished experts, academicians, researchers, and young professionals to exchange ideas, discuss emerging evidence, and explore new frontiers in oncology. I am confident that this conference will inspire meaningful academic discussions, foster collaborations, and contribute to the continued advancement of radiation oncology in Uttar Pradesh and across the country.

Let us continue to work together to make cancer care more precise, accessible, equitable, and compassionate, ensuring that every technological advancement ultimately translates into better outcomes for our patients.

I wish the **37th UPAROICON 2026** grand success and extend my best wishes to all participants for a memorable and enriching academic experience.



(Dr. V. Srinivasan)
Secretary General, AROI

Message from UPAROI President



Dr. Sonia Tiwari
President, UPAROI

It's a matter of great pride and pleasure to connect with our UPAROI family and extend my warm greetings to all delegates and my best wishes to the organizing team of the **37th Annual Conference of the Association of Radiation Oncologists** of Uttar Pradesh **(UPAROICON 2026),** being held on **31st October and 1st November 2026** at **Kalyan Singh Super Specialty Cancer Institute, Lucknow**, under the aegis of the Uttar Pradesh State Chapter of AROI.
The theme, **"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"** beautifully reflects the exciting possibilities of modern oncology. As advances in radiotherapy, artificial intelligence, and precision medicine reshape cancer treatment; our greatest responsibility is to ensure that scientific progress remains grounded in empathy, compassion, and the individual needs of every patient.

As President of UPAROI, my vision is to build a stronger, more inclusive and academically vibrant society—one that nurtures young talent, encourages research and innovation, strengthens collaboration across institutions, and champions equitable access to quality cancer care throughout Uttar Pradesh. Together, let us create opportunities for learning, leadership, and meaningful contributions to the future of radiation oncology.

I convey my best wishes to **Prof. M. L. B. Bhatt**, Chief Patron; **Prof. Sharad Singh**, Organizing Chairperson; **Dr. Pramod Kumar Gupta**, Organizing Secretary; and the entire organizing committee for a successful and memorable **UPAROICON 2026**.

Let us move forward together—with knowledge to innovate, collaboration to progress, and compassion to heal.

With warm regards



(Dr. Sonia Tiwari)
President, UPAROI
Senior Consultant, Department of Radiation Oncology
RCC, Kamala Nehru Memorial Hospital, Prayagraj

Message from UPAROI Secretary



Dr. Md Shadab Alam
Secretary, UPAROI

It gives me immense joy and pride to share that the **Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute (KSSSCI), Lucknow**, is hosting the prestigious 37th UPAROICON 2026, centred on the theme *"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology."*

The words of Albert Einstein, *"Wisdom is not a product of schooling but of the lifelong attempt to acquire it,"* aptly capture the essence of this academic gathering. Medicine, particularly oncology, is a constantly evolving field that demands lifelong learning, continuous innovation, and an unwavering commitment to the well-being of our patients.

The annual conference of the **Uttar Pradesh Association of Radiation Oncologists (UPAROI)** has consistently served as a vibrant platform for academic exchange, scientific advancement, and professional camaraderie. The 37th UPAROICON marks yet another significant milestone in the illustrious journey of our Society, reaffirming our collective commitment to excellence in cancer care.

As the **Secretary of UPAROI Society**, it is my distinct honour and privilege to extend a warm and heartfelt welcome to all our distinguished faculty members, esteemed delegates, young colleagues, and postgraduate students. May this gathering inspire us to embrace emerging technologies, pursue greater precision in treatment, and place compassion and patient-centricity at the very heart of cancer care.

I express my sincere gratitude and appreciation to Prof. **M. L. B. Bhatt, Chief Patron; Prof. Sharad Singh, Organizing Chairman; Dr. Pramod Kumar Gupta, Organizing Secretary; Dr. Rumita Singh, Organizing Co-Secretary**; and every member of the organizing committee for their dedication, meticulous planning, and tireless efforts in bringing this prestigious conference to fruition. Their commitment and enthusiasm are instrumental in making this academic endeavour a memorable and meaningful experience for all.

I wish all the participants a scientifically rewarding, intellectually stimulating, and truly memorable conference. May you return with fresh perspectives, enduring professional friendships, and cherished memories of **Lucknow—the City of Nawabs, renowned for its timeless *Tehzeeb*, warm hospitality, and delectable Awadhi cuisine.**

With warm regards and best wishes for a grand success of the 37th UPAROICON 2026

(Dr. Md Shadab Alam)
Secretary, UPAROI

Message



Dr. Rajesh Vashistha

It is my proud privilege and honour to share that the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute (KSSSCI), Lucknow is organizing the **37th UPAROICON 2026** from 31st October to 1st November 2026.The theme of the conference **"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology"** is highly relevant in the current era, and the event is being organized under the dynamic leadership of Dr. Sharad Singh, Head, Department of Radiation Oncology, and his dedicated team.

This prestigious academic gathering will bring together the medical fraternity, particularly young clinicians and researchers, on a common platform to deliberate on recent technological advances and evolving concepts in radiation oncology. Such scientific exchange will undoubtedly contribute towards refining clinical practices and enhancing patient care. I am confident that this conference will set a new benchmark in terms of academic enrichment and warm hospitality. I extend my heartfelt best wishes to all the distinguished delegates for a highly informative and enriching experience, and I congratulate the organizing team for their meticulous and sincere efforts in making this conference a grand success.

Dr. Rajesh Vashistha
Director & Head, Department of Radiation Oncology
Medical Advisor, Max Super Speciality Hospital
Bathinda, Punjab
Former Chair, President and Secretary General, (AROI)
Former Vice President and current Advisor, (FARO)

Message



Dr. P. Vijay Anand Reddy
Padma Shri Awardee
Former President AROI
Director, Apollo Cancer Centres
Hyderabad, India

It gives me immense pleasure to extend my warm greetings and best wishes to the Organising Committee, distinguished faculty, delegates and participants of the 37th Annual Conference of the Association of Radiation Oncologists of Uttar Pradesh (UPAROICON 2026), being hosted by the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow.

The theme, "Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology," is both timely and relevant. The rapid evolution of radiation oncology, with advances in precision radiotherapy, image-guided treatment, adaptive planning, artificial intelligence, and particle therapy, is redefining the standards of cancer care. These innovations offer unprecedented opportunities to improve treatment outcomes, minimise toxicity and enhance the quality of life of our patients.

However, while embracing technological advancements, we must never lose sight of the human being behind every diagnosis. The true measure of progress in oncology lies not merely in sophisticated machines or cutting-edge techniques, but in our ability to deliver compassionate, evidence-based, accessible and equitable care to every patient.

Academic conferences such as UPAROICON play a vital role in fostering scientific exchange, encouraging research, strengthening professional collaboration, and inspiring the next generation of oncologists. I am confident that the deliberations and interactions during this conference will contribute meaningfully to the advancement of radiation oncology and multidisciplinary cancer care.

I congratulate Dr. Sharad Singh, Organising Chairman, the organising team, and the Department of Radiation Oncology, KSSSCI, Lucknow, for their efforts in bringing together the oncology fraternity for this important academic gathering.

I wish UPAROICON 2026 great success and hope that the conference will inspire new ideas, meaningful collaborations, and renewed commitment towards our shared mission of conquering cancer with science, precision, and compassion.

With my very best wishes for a successful and memorable conference.

(Dr. P. Vijay Anand Reddy)

Message



Dr. Umesh M. Mahantshetty,
Director, Homi Bhabha Cancer Hospital & Research Centre
Tata Memorial Centre
AROI President-Elect (2026–2028)

It gives me immense pleasure to extend my warm greetings to the **Association of Radiation Oncologists of Uttar Pradesh (UPAROI)** on the occasion of its **37th Annual Conference, UPAROICON 2026**, hosted by the Department of Radiation Oncology at **Kalyan Singh Super Speciality Cancer Institute (KSSSCI), Lucknow**.

The theme of the conference, ***"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"*** is both timely and highly relevant to the rapidly evolving field of Radiation Oncology.

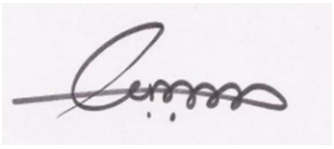
Over the years, Uttar Pradesh has made significant strides in strengthening its cancer care infrastructure, with more than 65 linear accelerators and 35 brachytherapy machines across approximately 60 radiation therapy centres. While this progress is commendable, the effective utilisation of these technologies requires continuous learning, skill enhancement, and the adoption of evidence-based, precision-driven, and patient-centric approaches.

In this context, academic forums such as UPAROICON Meeting play a vital role in bridging the gap between technological advancements and clinical practice. I am sure UPAROICON 2026 Conference 's scientific deliberations, provides an invaluable platform for knowledge exchange, professional collaboration, and the advancement of cancer care further.

I congratulate the **UPAROI Executive Committee, the Organising team, and the Department of Radiation Oncology at KSSSCI, Lucknow**, for their efforts in conducting this conference.

I extend my best wishes to the organising committee, distinguished faculty, and all delegates for a highly successful and memorable UPAROICON 2026.

Best wishes,



(Dr. Umesh M. Mahantshetty)

Message



Dr Madhup Rastogi
Professor & HOD
Department of Radiation Oncology
Dr. Ram Manohar Lohia Institute of Medical Sciences (RMLIMS)
Vibhuti Khand, Gomti Nagar, Lucknow

It gives me immense pleasure to extend my heartfelt greetings and best wishes to the organizers of the **37th UPAROICON 2026**, being hosted by the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute (KSSSCI), Lucknow.

The theme, *"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"* is both timely and relevant, reflecting the evolving landscape of cancer management. The integration of technological advancements, precision medicine, multidisciplinary collaboration, and compassionate, patient-centric care is essential to improving treatment outcomes and enhancing the quality of life of patients with cancer.

UP chapter of AROI provides a valuable platform for academic exchange, scientific deliberations, and professional collaboration among oncologists. I am confident that this conference will foster new ideas, strengthen professional partnerships and contribute meaningfully to the advancement of cancer care in Uttar Pradesh and beyond.

My best wishes to all the delegates and participants for a fruitful and memorable conference.

(Dr Madhup Rastogi)



Prof. Dr. Sunil Dutt Sharma

Chairman, Board of Trustees
Association of Medical Physicists of India
C/o Radiological Physics & Advisory Division
Bhabha Atomic Research Centre
CT&CRS Building, Anushaktinagar, Mumbai – 400094

Formerly, Head Medical Physics Section
Radiological Physics & Advisory Division
Bhabha Atomic Research Centre
CT&CRS Building, Anushaktinagar
Mumbai – 400094, India (sdsbarc@gmail.com)

MESSAGE

I am happy to note that Department of Radiation Oncology, Kalyan Singh Super Specialty Cancer Institute (KSSSCI), Lucknow is organizing 37th Annual Conference of the Association of Radiation Oncologists of Uttar Pradesh (UPAROICON 2026) on 31st October and 1st November 2026 at The Centrum, Golf City, Lucknow. The theme of the conference "Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology", is highly pertinent in the era of cancer care by advance technology medical radiation equipment.

The cancer care in todays' time is shifting from broad, generalised treatments to a highly connected model combining artificial intelligence, genomic profiling, and patient-centric delivery. This is the era of advancement in imaging and delivery by integration of ultra-tech hardware with artificial intelligence-based software. Machine learning and deep learning models analyze complex CT, MRI, PET scans, and pathology slides to spot early the micro-tumors/subtle patterns. The use of artificial intelligence also speeds up radiation therapy planning which helps in reducing setup times without interfering in personalised specialist specific final clinical decisions. Technologically advanced radiation treatment equipments such as CyberKnife, easy to execute adaptive radiotherapy equipments, and robotic surgery devices are utilised in personalised radiation oncology. Remote patient monitoring, tele-oncology and electronic health tracking help the cancer care team to manage side effects and symptom changes in real time. Spoke-and-hub hospital networks and virtual tumor boards expand access to specialised diagnostics even in remote and underserved areas.

Reducing the margins, minimizing the geographical miss and delivery of prescribed dose with enhanced accuracy and precision are the buzz words of advance cancer care by radiation oncology. The integration of technology with patient specific requirements are making it possible to fulfill these dreams. However, dynamic multi-omics approaches required to deal with tumour heterogeneity and high cost of treatment by advance technology equipments and procedures are still challenging which need to be tackled in near future. I hope the conference deliberations will throw light on these challenges and try to find out the solutions for the benefit of cancer patients.

I am sure that deliberations of the conference will be rich in science but simple in presentations. In addition, the conference will provide the opportunity for young colleagues to interact with experienced faculty and solve the doubts of their day-to-day practice. I am confident that the organizing team has put their best effort to make this conference memorable both scientifically and socially. I congratulate the organizing team of KSSSCI for hosting this conference in Lucknow and express my sincere gratitude to all concerned and wish this conference a grand success in meeting its objectives.

(Dr. S. D. Sharma)

Message from Organizing Chairman



Dr. Sharad Singh
Professor and Head
Department of Radiation Oncology
Kalyan Singh Super Speciality Cancer Institute
Lucknow, Uttar Pradesh

It gives me immense pleasure to be part of the enthusiastic team organising the 37th Annual Conference of the Uttar Pradesh Association of Radiation Oncologists of India (UPAROICON 2026), being hosted by the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow, on 31st October–1st November 2026. Organised under the aegis of the Association of Radiation Oncologists of India (AROI), the conference is centred around the theme "Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology." I extend a warm welcome to all the distinguished faculty members, chairpersons, delegates, and participants joining us for this academic gathering.

I gratefully acknowledge the encouragement and support extended by our esteemed patrons, especially our Director Prof. M.L.B. Bhatt, whom I have had the good fortune of having as my mentor, with his overarching presence in shaping my career. The faculty members, residents, nursing staff, technical personnel, and all colleagues who have contributed to the organisation of this conference deserve my gratitude. I sincerely appreciate their dedication, cooperation, and wholehearted efforts in making this scientific event possible.

I sincerely wish to thank and congratulate my team in the department, especially Dr. Pramod Kumar Gupta, Dr. Rumita Singh, Mr. Ragul T., Dr. Sumanta Manna, Dr. Ritika Ranjan, Dr. Himanshu, Mr. Abhishek Pandey, Mr. Vishnu Kumar, and Mr. Rohit, who have toiled immensely for last many months to make this event successful.

The scientific deliberations will provide valuable insights into the latest advancements in radiation oncology and their clinical applications. I sincerely hope that this conference will contribute to the advancement of knowledge, promote meaningful scientific exchange, and inspire young oncologists to embrace emerging technologies and innovations in cancer care.

I warmly welcome all the distinguished faculty members, delegates, and participants to Lucknow and wish everyone a rewarding academic experience and a memorable stay in the City of Nawabs.



(Dr. Sharad Singh)
Organizing Chairman
UPAROICON 2026

Message from Organizing Secretary



Dr. Pramod Kumar Gupta
Professor (Additional)
Department of Radiation Oncology &
Dean
Kalyan Singh Super Speciality Cancer Institute
Lucknow, Uttar Pradesh

It gives me immense pleasure, as Organising Secretary, to welcome you all to the **37th Annual Conference of UPAROICON 2026, coinciding with the 50th anniversary of the Association of Radiation Oncologists of India (AROI).** This year's theme, **"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"** reflects the evolving landscape of modern oncology.

Uttar Pradesh faces a substantial cancer burden, and our challenge extends beyond adopting advanced technologies. We must ensure scientific progress reaches patients equitably, accessibly, and affordably. This year, UPAROICON has achieved **a remarkable milestone,** with around **300 faculty members and delegates, including over 250 radiation oncologists, and 96 scientific abstracts - the highest participation in the conference's history.** It reflects UPAROICON's growing academic stature and our fraternity's commitment to advancing cancer care. As Organising Secretary, I am especially pleased that this conference provides young faculty members and residents with a platform to present their work and exchange ideas.

Organising a conference of this scale is a collective endeavour. I sincerely thank the national AROI and UPAROI leadership, our Director, Head, faculty colleagues, Senior and Junior Residents, Medical Physics colleagues, RT technologists, nursing officers, and supporting staff. I extend heartfelt gratitude to our seniors, organising and scientific committees, faculty members, delegates, industry partners, and media colleagues for their invaluable support.

My heartfelt thanks go to my parents, my wife, Dr. Rupali Gupta, my children, and my extended family for their love, patience, understanding, and unwavering support.

Coming from **Lucknow, a city renowned for its *tehzeeb, nazaakat, nafaasat, and mehmaan-nawaazi,*** we hope you experience UPAROICON 2026's academic richness alongside our city's gracious hospitality. Every effort has been made with sincerity and affection to make your visit comfortable and memorable. Together, we are striving to make UPAROICON bigger, better, and more meaningful for our oncology community and for the cancer patients we serve.

With warm regards, heartfelt gratitude, and Lucknow's traditional *mehmaan-nawaazi*, I warmly welcome you all to UPAROICON 2026.

(Dr. Pramod Kumar Gupta)
Organizing Secretary
UPAROICON 2026

Message from Organizing Co-Secretary



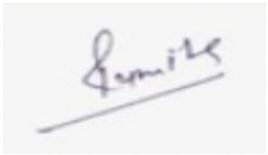
Dr. Rumita Singh
Assistant Professor
Department of Radiation Oncology
Kalyan Singh Super Speciality Cancer Institute
Lucknow, Uttar Pradesh

It is a matter of immense pleasure and privilege to welcome you to the 37th Annual Conference of the Uttar Pradesh Association of Radiation Oncologists of India (UPAROICON 2026), organised by the Department of Radiation Oncology, Kalyan Singh Super Specialty Cancer Institute, Lucknow, under the aegis of the Association of Radiation Oncologists of India (AROI), on 31 October and 1 November 2026. The conference is centred on the theme *"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology."*

As radiation oncology continues to advance, the integration of precision medicine, artificial intelligence, molecular oncology, particle therapy, and patient-centric approaches is transforming cancer care. UPAROICON 2026 aims to provide a dynamic academic platform for sharing knowledge, exchanging clinical experiences, and exploring emerging concepts and innovations in contemporary oncology.

I am deeply honoured to serve as the Organising Co-Secretary of UPAROICON 2026 and sincerely thank Prof. M. L. B. Bhatt Sir, Prof. Sharad Singh Sir, and Dr. Pramod Kumar Gupta Sir for entrusting me with this responsibility. I am grateful for their valuable guidance, encouragement, and continued support. I also extend my heartfelt appreciation to my colleague, Dr. Ritika Ranjan; the senior residents, Dr. Himanshu Verma, Dr. Neha Rajput, and Dr. Sonali Gupta; the medical physics team, Mr. Ragul T., Dr. Sumanta Manna, Ms. Anupama, and Ms. Sushma; the RT technologists, Mr. Abhishek Pandey and Mr. Vishnu Kumar; the entire RTT team; and all supporting staff for their cooperation, dedication, and invaluable contributions to the successful organisation of this conference.

On behalf of the Organising Committee, I extend a warm welcome to all distinguished faculty members, delegates, colleagues, and young professionals. I look forward to your enthusiastic participation and hope that UPAROICON 2026 will be a memorable and academically enriching experience for everyone in the historic city of Lucknow.



(Dr. Rumita Singh)
Organizing Co-Secretary
UPAROICON 2026

UTTAR PRADESH MEDICAL COUNCIL

5, Sarvpalli Mall Avenue Road, Lucknow-226001 Uttar Pradesh (India)
Contact No. :+91-9151024461
Website: www.upmedicalcouncil.org, E-mail: upmedicalcouncil@upsmfac.org

Ref No: UPMC/CME-179 **Date: 23/10/2026**

To,

Dr. PRAMOD KUMAR GUPTA,
Organising Secretary,
DEPARTMENT OF RADIATION ONCOLOGY, KALYAN SINGH SUPER SPECIALITY CANCER !NSTITUTE, LUCKNOW,
PKG.SGPGI@GMAIL.COM

Subject:- Regarding request for grant of CME Accreditation

Dear Sir/Madam,

Please refer to your CME application dated **10-10-2026** through online mode. It is noted that the **DEPARTMENT OF RADIATION ONCOLOGY, KALYAN SINGH SUPER SPECIALITY CANCER !NSTITUTE, LUCKNOW** is conducting the Workshop / Seminar / Conference / CME / Webinar / Live Surgery on topic **TRANSFORMING CANCER CARE: INTEGRATING TECHNOLOGY, PRECISION & PATIENT-CENTRIC ONCOLOGY** on **31-10-2026 To 01-11-2026** at HOTEL THE CENTRUM, POCKET 7, SECTOR C, GOLF CITY, LUCKNOW, UTTAR PRADESH 226030.

It is also noted that CME will be imparted during the conference by the organizer. As the U.P. Medical Council does not currently have its own policy for CME accreditation, it has been decided to adopt the norms prescribed by the National Medical Commission (NMC), New Delhi. Accordingly, the Council grants three (3) accreditation points per day. Based on your schedule, a total of **THREE (3)** CME credit hours are being awarded.

I would like to inform you that Accreditation for CME programme is hereby granted as per schedule of Credit Hours, as approved by U.P. Medical Council. Please send via email the list of Experts who attended the CME programme along with their registration numbers (if possible) and also provided **Consent of Patient for Live Cases (If Any)**.

Signature Valid
Digitally Signed By Dr. Rama Srivastava
(REGISTRAR OF U.P. MEDICAL COUNCIL)
Date :27.10.2026 13:19:18

I wish you good luck for successful conduction of the conference.

Registrar
U.P. Medical Council
Lucknow

From the Desk of the Souvenir Editorial Committee



Dr. Ritika Ranjan



Dr. Himanshu Verma



Dr. Sumanta Manna



Mr. Abhishek Pandey

It is a matter of immense pleasure and privilege to present the souvenir of the 37th Annual Conference of the Uttar Pradesh Association of Radiation Oncologists of India (UPAROICON 2026), being organised by the Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow, on 31st October and 1st November 2026.

The theme of this year's conference, *"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology,"* reflects the remarkable evolution of cancer care and the growing importance of technological innovation, precision medicine, multidisciplinary collaboration, and patient-centred treatment approaches. In this rapidly advancing field, the exchange of scientific knowledge and clinical experience remains essential to improving oncological practice and patient outcomes.

This souvenir is a humble endeavour to bring together the academic contributions, research perspectives, and clinical experiences of distinguished faculty members, researchers, and oncology professionals. It represents the collective spirit of learning, collaboration, and scientific inquiry that forms the foundation of UPAROICON 2026. We hope that the contributions featured herein will stimulate meaningful discussion, encourage further research, and inspire new perspectives in cancer care.

We express our sincere gratitude to our esteemed seniors for their valuable guidance, encouragement, and support. We also extend our heartfelt appreciation to the authors, contributors, members of the Organising Committee, and everyone who has devoted their time and effort to making this souvenir possible. Their collective efforts have been instrumental in bringing this academic endeavour to fruition.

While every effort has been made to ensure the quality and comprehensiveness of this compilation, we welcome constructive suggestions and feedback from our readers. We hope this souvenir will serve not only as a record of this prestigious conference but also as a lasting source of academic inspiration and a reminder of our shared commitment to advancing cancer care.

We warmly welcome all delegates and participants to UPAROICON 2026 and wish them a stimulating, enriching, and memorable academic experience in the historic and hospitable city of Lucknow.

NATIONAL EXECUTIVE

AROI EXECUTIVE



Dr. Manoj Gupta
CHAIR AROI



Prof. S.N. Senapati
PRESIDENT AROI



Dr. C.S. Madhu
PRESIDENT ELECT AROI



Dr. V. Srinivasan
SECRETARY GENERAL AROI

ICRO EXECUTIVE



Dr. Surbani Ghosh Laskar
CHAIRMAN ICRO



Dr. Gautam Kumar Sharan
VICE CHAIRMAN ICRO



Dr. Pooja Nandwani
SECRETARY ICRO

UPAROI EXECUTIVE



Dr. Sonia Tiwari
PRESIDENT UPAROI



Dr. Md Shadab Alam
GENERAL SECRETARY UPAROI



Dr. Kailash Mithal
TREASURER UPAROI

ORGANIZING COMMITTEE



Patron-in-Chief
Prof. M. L. B. Bhatt
Director, KSSSCI, Lucknow



Organizing Chairman
Dr. Sharad Singh
Professor and Head
Department of Radiation Oncology



Organizing Secretary
Dr. Pramod Kumar Gupta
Additionl Professor
Department of Radiation Oncology



Organizing Co-secretary
Dr. Rumita Singh
Assistant Professor
Department of Radiation Oncology



Joint Secretary
Mr. Ragul T.



Treasurer
Dr. Sumanta Manna



Joint Secretary
Dr. Ritika Ranjan



Joint Secretary
Dr. Himanshu Verma



Joint Secretary
Dr. Neha Rajput



Joint Secretary
Dr. Sonali Gupta



Joint Secretary
Sushma Evangelin



Joint Secretary
Anupama NV



Member
Mr. Vishnu Kumar



Member
Mr. Abhishek Pandey

ORGANISING COMMITTEE

37th UPAROICON 2026

COMMITTEE / DESIGNATION	MEMBERS
Chief Patron	Prof. M. L. B. Bhatt
Patron	Prof. Kamal Sahni, Prof. Shaleen Kumar, Prof. S. P. Mishra, Prof. Punita Lal, Prof. Rajeev Gupta, Prof. Madhup Rastogi
Organising Chairman	Prof. Sharad Singh
Organising Secretary	Dr. Pramod Kumar Gupta
Organising Co-Secretary	Dr. Rumita Singh
Treasurer	Dr. Sumanta Manna
Joint Secretary	Mr. Ragul T, Dr. Ritika Ranjan, Dr. Himanshu Verma, Dr. Bhoopendra Pratap, Dr. Parul Priyanka, Dr. Neha, Ms. Sushma, Ms. Anupma
Scientific Committee	Prof. Kirti Srivastava, Prof. Sushma Agarwal, Prof. K.J. Maria Das, Prof. Rohini Khurana, Prof. Shalini Singh, Prof. Shagun Misra, Prof. Teerthraj Verma, Dr. Ajeet Gandhi, Mr. Senthil Kumar S. K, Dr. Mohd Suhaib, Dr. Ayush Garg, Dr. Treshita Dey, Dr. Ritika Ranjan
Advisor	Prof. Neeraj Rastogi, Prof. N.K. Pamuly, Prof. Madhup Rastogi, Prof. Anoop Srivastava, Dr. Mrinalini Verma, Prof. Naveen Singh
Souvenir Committee	Dr. Shantanu Sapru, Dr. Resham Srivastava, Dr. Sumanta Manna, Dr. Nitin Kumar, Dr. Farhan Ahmad, Dr. Ritika Ranjan, Abhishek Pandey
Registration Committee	Dr. Rajeev Pant, Dr. Nishee Srivastava, Dr. Sudhir Singh, Dr. Sanjay Verma, Dr. Ajay Shukla, Dr. Smriti Srivastava, Ms. Anupama, Sushil Yadav, Ashish Jaiswal, Anushka, Jyoti, Monika
Hall Management Committee	Dr. Seema Gupta, Dr. Rohini Khurana, Dr. Saket Pandey, Dr. Nabila Anjum, Dr. Pragya Shukla, Dr. Shweta Srivastava, Dr. Neleish Aggarwal, Dr. Arun Kumar Yadav, Dr. Bhogendra, Mr. Vishnu Kumar, Deepak, Smita, Aman
Travel & Accommodation Committee	Dr. Rajendra Kumar, Dr. Sumanta Manna, Dr. Udal Yadav, Dr. Mashkoor Ahmad, Dr. Himanshu Verma, Mr. Vishnu Kumar, Abhishek Pandey, Rahul, Ajay, Mohit
Catering Committee	Dr. Rahat Hadi, Dr. Vijay Raturi, Dr. Tayzeen, Dr. Anshika Arora, Dr. Parul, Dr. Neha, Ms. Sushma, Rohit Kumar, Sanjeev
Cultural Committee	Dr. Sunil Kumar, Dr. Taruna, Dr. Shraddha Srivastava, Dr. Geeta Singh, Dr. Swetima, Dr. Indrajeet Gupta, Dr. Ritika Ranjan, Monika
Website Committee	Mr. Ragul T, Dr. Himanshu Verma, Abhishek Pandey, Rohit Kumar
Correspondence Committee	Dr. Rumita Singh, Dr. Himanshu Verma, Dr. Bhoopendra Pratap, Sonali Gupta

Scientific Programme
37th UPAROICON 2026
(31st October – 1st November 2026)

Department of Radiation Oncology
Kalyan Singh Super Speciality Cancer Institute, Lucknow
Venue: The Centrum Hotel, Golf City, Lucknow
"Transforming Cancer Care: Integrating Technology, Precision & Patient-Centric Oncology"

Day 1 – Sessions
31st October, 2026 (Saturday)
Hall A

Time	Topic	Speaker	Chairperson
08:00 AM-08:30 AM	**Registration**		
Session I-CNS (Hall A)			
08:30 AM-08:40 AM (8+2 min)	Beyond Stupp: The Future of Glioblastoma Management	Dr. Ankita Pandey	Dr. Radha Kesarwani Dr. Geetika Pant Dr. Rakhi Jain Dr. Anand Sachan
08:40 AM-08:50 AM (8+2 min)	Radiation Strategies in Glioblastoma: Adaptive Radiotherapy and Dose Escalation	Dr. Narendra Kumar	
08:50 AM-09:00 AM (8+2 min)	Low-Grade Glioma: Navigating the Gray Zones of Radiotherapy	Dr. Sunil Choudhary	
09:00 AM-09:10 AM (8+2 min)	Medulloblastoma in children: Current Standards and Future Directions	Dr. Roopali	
9:10 AM-9:30 AM (20 min)	**Panel-**Brain Metastasis: Surgery, SRT, WBRT or Observation	**Moderator-** Dr.Resham Srivastava **Panelist-** Dr. Pavan Kumar Dr. Vijendra Kumar Dr. Poonam Gupta Dr. Amit Upadhaya Dr. Archana Singh Dr. Himanshu Mishra Dr. Dev Kumar Yadav Dr. Rashmi Yadav	Dr. R.K. Katiyar Dr. Ashok Kumar Arya
Session II-Head and Neck (Hall A)			
09:30 AM-09:40 AM (8+2 min)	Hypofractionation in oral cavity cancer: Can we safely shorten Adjuvant Radiotherapy?	Dr. Ajay Choubey	Dr. A.K. Chaturvedi Lt. Col.Dr. Mayuri Jain Dr. Farhan Ahmad

Time	Topic	Speaker	Chairperson
09:40 AM-09:50 AM (8+2 min)	Management of ENE-Positive post-operative oral cavity cancer: current Evidence and Future directions	Dr. Rashika Sachan	Dr. A.K. Chaturvedi Lt. Col Dr. Mayuri Jain Dr. Farhan Ahmad
09:50 AM-10:00 AM (8+2 min)	Unresectable Oral Cavity Cancer Dilemma: Optimizing local and Systemic therapy	Dr. Tripti Saxena	
10:00 AM-10:10 AM (8+2 min)	Concurrent chemoradiation in Head and Neck cancer: From clinical Trial to real-world practice- Challenges, compromises and solutions	Dr. Siddharth Kumar	
10:10 AM-10:20 AM (8+2 min)	Sparing Spinal cord in head and neck cancer radiotherapy by dose per fraction delivered to spinal cord in SIB-IMRT vs 3D-CRT and its implication for re-irradiation.	Dr. Manoj Gupta	
10:20 AM-10:27 AM 10:27 AM-10:34 AM 10:34 AM-10:41 AM (6+1 min)	PNI in Head and Neck Cancer: From Pathology to Surgical Decision-Making and Radiation Planning Onco-Pathology perspective Surgery perspective Radiation perspective	Dr. Deepti Mishra Dr. Durgesh Kumar Dr. Ritika Ranjan	Dr. R. K. Chittlangia Dr. Seema Gupta Dr. Ankita Patel
10:41 AM-10:55 AM (14 min)	**TEA BREAK**		
10:55 AM-11:05 AM (8+2 min)	Neoadjuvant Chemotherapy in locally advanced Head and Neck Cancer: Who really benefits?	Dr. M.D. Mamun Khan	
11:05 AM-11:15 AM (8+2 min)	Balancing Cure and Function: Strategies for Functional preservation during and after Radiotherapy in Head and neck carcinoma	Dr. Himanshi Khattar	
11:15 AM-11:40 AM (25 min)	**Panel:** ypT1-2N0 Head and Neck Cancer: Adjuvant RT or CCRT who needs what?	**Moderator –** Dr. Sambit Swarup Nanda **Panelist-** Dr. Neha Gupta Dr. Jitendra Kr Verma Dr. Indu Shukla Dr. Prabha Verma Dr. Sanjay Verma Dr. Nelesh Aggarwal	Major Dr. M.Q. Baig Dr. Kishore Singh

		Dr. Shwetima Chaudhary Dr. Vachaspati Kumar Mishra	
Time	**Topic**	**Speaker**	**Chairperson**
Session III – Sarcoma (Hall A)			
11:40 AM-11:50 AM (8+2 min)	The Changing Landscape of Radiotherapy in Soft Tissue Sarcoma	Dr. Ashutosh Mukherji	Dr. S.N. Prasad Dr. Mohammad Akram Dr. Varun Vijay
11:50 AM-12:00 PM (8+2 min)	Radiotherapy in Ewing Sarcoma: Who, When, Where, and How much?	Dr. Gaurav Trivedi	
12:00 PM-12:45 PM (45 min)	**Dr. B. N. Lal Oration**	Dr. Shalini Singh	Dr. M.L.B. Bhatt Dr. Sonia Tiwari Dr. Shadab Alam Dr. Kailash Mittal
12:45 PM-1:30 PM (45 min)	**Lunch & Poster Viewing / Judging**		
Session IV – Breast (Hall A)			
01:30 PM-01:40 PM (8+2 min)	Post-mastectomy radiotherapy in the ERA of neoadjuvant systemic therapy: Does pathological response change the indication?	Dr. Prarabdh Singh	Dr. B. Paul Dr. Ashish Kul Shrestha
01:40 PM-01:50 PM (8+2 min)	Regional Nodal irradiation in Breast cancer: from standard practice to personalized treatment	Dr. Rohini Khurana	
01:50 PM-02:00 PM (8+2 min)	Hypofractionation in breast cancer: From Moderate hypofractionation to ultra-hypofractionation- where are we?	Dr. Prekshi Choudhary	
02:00 PM-02:10 PM (8+2 min)	CDK4/6 inhibitors and radiotherapy in early breast cancer: sequencing, safety and the road ahead	Dr. Sonia Tiwari	
02:10 PM-02:20 PM (8+2 min)	Understanding HER2/neu: From Biology to Clinical Management	Dr. S.N. Senapati	
02:20 PM-02:40 PM (10+10 min)	**DEBATE:** Can we replace surgery with systemic therapy and radiotherapy in selected early breast cancer for organ preservation?	For - Dr. Shagun Misra Against - Dr. Kul Ranjan Singh	
02:40 PM-03:05 PM (25 min)	**Panel**: Beyond Trastuzumab: The New Era of HER2-Targeted Therapy in Breast Cancer	**Moderator** - Dr. Abhishek Kumar Singh **Panelist-** Dr. Ritusha Mishra Dr. Vikas Talreja Dr. Suboohi Jafar Dr. Ankur Verma Dr. Garima Jaiswal	Dr. Sabuhi Qureshi Dr. Pramod Kumar Singh Dr. Mrinalini Verma

		Dr. Sonali Gupta Dr. Amit Pandey Dr. Udal Yadav Dr. Rajkumar Yadav	
Session V – Advances in Radiation Technology (Hall A)			
03:05 PM-03:15 PM (8+2 min)	AI for busy doctors from prompt to practice	Dr. K.S. Chufal	Dr. Rajeev Pant Dr. K. J. Maria Das Dr. Lalit Mohan Agrawal
03:15 PM-03:25 PM (8+2 min)	Surface-Guided Radiotherapy (SGRT): Workflow and Clinical Implementation	Mr. Ragul T.	
03:25 PM-03:35 PM (8+2 min)	Adaptive radiotherapy: Academic luxury or future standard of care?	Dr. Sumanta Manna	
03:35 PM-03:45 PM (8+2 min)	4D Imaging and Motion Management in Radiotherapy	Dr. Ajay Shukla	
03:45 PM-04:10 PM (25 min)	**Panel -** Is PET SCAN overestimating disease burden and causing a burden on the already exhausted infrastructure?	**Moderator** – Dr. Shaleen Kumar **Panelist-** Dr. Anshu Kumar Goel Dr. Narvesh Kumar Dr. Nitin Arun Dixit Dr. Manish Vora Dr. Satya.S.Sarangi Dr. Geeta Singh Dr. Sidharth Pant Dr. Nabila Anjum	Dr. Rahat Hadi Dr. Farhan Ahmad
04:10 PM-04:20 PM (10 min)	**TEA BREAK**		
04:20 PM-05:05 PM (45 min)	**Dr. M.C. Pant Oration**	Dr. M.L.B. Bhatt	Dr. Manoj Gupta Dr. S.N. Senapati Dr. Madhup Rastogi Dr. V. Srinivasan
05:05 PM-05:50 PM (45 min)	**Onco - Quiz**	**Moderator-** Dr. Ayush Garg Dr. Vishwadeep Mishra	**Judge-** Dr. Satyajeet Pradhan Dr. Shalini Singh **Coordinator-** Mr. Ragul T. Ms. Anupama
05:50 PM-06:35 PM (45 min)	**GBM - Hall A**		
06:35 PM-07:25 PM (50 min)	**Inaugural function - Hall A**		
8:00 PM Onwards	**Cultural Night Followed by Gala Dinner**		

Scientific Programme
37th UPAROICON (31st October – 1st November 2026)

Day 1 - Sessions
31st October, 2026 (Saturday)
Hall B

Time	Topic	Speaker	Chairperson
08:00 AM-08:30 AM	**Registration**		
10:00AM-10:20AM (20 min)	Role of NYKRON in CINV (Session supported by Zydus)	Dr. Adadi Srinivasa Naidu	Dr. Faraz Badar Dr. Laxman Pandey
10:20AM-10:45AM (25 min)	**Onco – Quiz (Preliminary Round)**	**Moderator-** Dr. Ayush Garg Dr. Vishwadeep Mishra	**Judge-** Dr. Satyajeet Pradhan Dr. Shalini Singh **Coordinator-** Mr. Ragul T. Ms. Anupama
10:45AM-10:55AM (10min)	**TEA BREAK**		
10:55AM-11:20AM (25 min)	Role of Avelumab in Metaststic CA Bladder (Session supported by Merck)	Dr. Adadi Srinivasa Naidu	Dr. Faraz Badar Dr. Laxman Pandey
11:20AM-11:50AM (30 min)	**Panel:** Lighting New Hope in ES-SCLC with 7 year Reported Overall Survival (Session supported by Roche)	**Moderator-** Dr. Sushma Agrawal **Panelist-** Dr. Anu Tiwari Dr. Surabhi Gupta Dr. Rohini Khurana Dr. Sonia Tiwari Dr. Pramod Kumar Gupta	Dr. Rajeev Gupta Dr. Rahat Hadi
12:00 PM-12:45 PM (45 min)	**Dr. B. N. Lal Oration - Hall A**	Dr. Shalini Singh	Dr. M.L.B. Bhatt Dr. Sonia Tiwari Dr. Shadab Alam Dr. Kailash Mittal
12:45 PM-1:30 PM (45 min)	**Lunch & Poster Viewing / Judging**		
01:30 PM-01:50 PM (20 min)	Management of RET-Driven Cancers: Evolving Paradigms in Precision Oncology (Session supported by Eli Lilly)	Dr. Animesh Agarwal	Dr. Anand Sachan Dr. Raj Kumar Yadav

Time	Topic	Speaker	Chairperson
01:50 PM-02:10PM (20 min)	RapidArc Dynamic: A turning point for Arc therapy (Session supported by Varian)	Vaishali Bainiwal	Dr. K J Maria Das Dr. Vindhyavasini Prasad Pandey Mr. S K Senthil Kumar
02:10PM-02:25PM (15 min)	Personalized Radiation Therapy with Elekta's Adaptive Solutions (Session Supported by Elekta)	Ms. Aparna Tomar	
02:25PM-02:45PM (20 min)	Opdyta in 1L Gastric Cancer, GE Junction Cancer & Esophageal Adenocarcinoma Whose Tumors Express PD-L1 (≥1) (Session supported by BMS)	Dr. Animesh Agarwal	Dr. Raj Kumar Yadav Dr. Niraj Agarwal
02:45 PM-03:10 PM (25 min)	Nivolumab Clinical Trial Readout (Session supported by Dr.Reddy's)	Dr. Jitendra Bhadauria	Dr. Faraz Badar Dr. Laxman Pandey
03:10 PM-03:30 PM (20 min)	Combination Therapy for First-Line EGFRm Metastatic NSCLC Patients (Session supported by Astrazeneca)	Dr. Adadi Srinivas Naidu	Dr Ashutosh Mishra Dr. Nitin Kumar
03:30 PM-4:00 PM (30 min)	**Panel-**Advancing Lung Cancer Care: Clinical Perspectives on TECENTRIQ and Evolving Treatment Paradigms. (Session supported by Roche)	**Moderator:** Dr. Ajeet Kumar Gandhi **Panelist:** Dr. Poonam Gupta Dr. Shashank Shekhar Dr. Ankita Patel Dr. Laxman Pandey Dr. Nitin Kumar	Dr. Madhup Rastogi Dr. Sharad Singh
04:10 PM-04:20 PM (10 min)	**TEA BREAK**		
04:20 PM-05:05 PM (45 min)	**Dr. M.C. Pant Oration - Hall A**	Dr. M.L.B. Bhatt	Dr. Manoj Gupta Dr. S.N. Senapati Dr. Madhup Rastogi Dr. V. Srinivasan
05:05 PM-05:50 PM (45 min)	**Onco – Quiz - Hall A**	**Moderator-** Dr. Ayush Garg Dr. Vishwadeep Mishra	**Judge-** Dr. Satyajeet Pradhan Dr. Shalini Singh **Co-Ordinator:** Mr. Ragul T. Ms. Anupama
05:50 PM-06:35 PM (45 min)	**GBM - Hall A**		
06:35 PM-07:25 PM (50 min)	**Inaugural function - Hall A**		
8:00 PM Onwards	**Cultural Night Followed by Gala Dinner**		

Day 2 - Sessions 1st November, 2026 (Sunday) Hall-A			
Time	**Topic**	**Speaker**	**Chairperson**
08:30 AM-08:40 AM (8+2 min)	Lattice Radiotherapy: From Radiobiological concept to clinical practice	Dr. Himanshu Verma	Dr. Rakesh Kumar Rawat Dr. Naveen Singh Dr. Mohd. Waseem Raza
08:40 AM-08:50 AM (8+2 min)	SRT and SBRT in modern Radiation oncology: Principles, techniques and clinical applications	Dr. Mohd. Suhaib	
08:50 AM-09:05AM (13+2 min)	Immunotherapy with definitive chemoradiotherapy in locally advanced HNSCC	Dr. Surabhi Gupta	
Session VI – LUNG AND GI (Hall A)			
09:10 AM-09:20 AM (8+2 min)	HCC Beyond TACE: The Emerging Role of SBRT and ablative Radiotherapy	Dr. Deepti Sharma	Dr. Virendra Singh Dr. Atul Mishra Dr. Dheerendra Sachan
09:20 AM-09:30 AM (8+2 min)	Combining Immunotherapy and Radiotherapy in NSCLC: Evidence and Clinical Practice	Dr. Rajesh Pasricha	
09:30 AM-09:40 AM (8+2 min)	Resectable Esophageal Cancer: Neoadjuvant Chemotherapy or Chemoradiotherapy -Who Should Get What?	Dr. Rashi Agarwal	
09:40 AM-09:50 AM (8+2 min)	Adjuvant therapy in Gallbladder Cancer: Who Really Needs Radiation?	Dr. Indrajeet Gupta	
09:50 AM-10:15 AM (25 min)	**Panel-**Total Neoadjuvant Therapy (TNT): Has It Become the New Standard for Locally Advanced Rectal Cancer?	**Moderator** – Dr. Sushma Agarwal **Panelist-** Dr. Puneet Prakash Dr. Sameer Batham Dr. C.P. Awasthi Dr. Sameer Gupta Dr. Sidhartha Arora Dr. Ashok Kumar Singh Dr. Adadi Srinivas Naidu Dr. Abhishek Pathak Dr. Vikas Sharma Dr. Smriti Srivastava	Dr. Rajeev Gupta Dr. Anu Tiwari

10:15 AM-10:25 AM (10 min)	TEA BREAK		
Time	**Topic**	**Speaker**	**Chairperson**
Session VII - Gynae oncology (Hall A)			
10:25 AM-10:35 AM (8+2 min)	Changing Paradigms in Locally Advanced Cervical Cancer: Beyond Concurrent Chemoradiotherapy	Dr. Arun Kumar Verma	Dr. Satyajeet Pradhan Dr. Rajendra Kumar Dr. Shraddha Srivastava
10:35 AM-10:45 AM (8+2 min)	Modern Brachytherapy Techniques: Improving Outcomes and Reducing Toxicity for Carcinoma of cervix	Dr. Ajeet Kumar Gandhi	
10:45 AM-11:10 AM (25 min)	**Panel-** Management of Recurrent Cervical Cancer: Surgery, Re-irradiation, or Systemic Therapy?	**Moderator –** Dr. Abhishek Shinghal **Panelist-** Dr.Shekhar Kesari Dr. Aditya Elehance Dr. Saumya Gupta Dr. Afroz Jahan Dr. Rakesh Kumar Mishra Dr. Parul Priyanka Dr. Neha Rajput Dr. Bhoopendra Pratap Dr. Shweta Srivastava	Dr. Tabassum Samani Dr. Shashank Shekhar
11:10 AM-11:20 AM (8+2 min)	Adjuvant Radiotherapy for Carcinoma of the Endometrium in the Molecular Era: Who Needs EBRT, Vaginal Brachytherapy, or Observation?	Dr. Nitin Kumar	
11:20 AM-11:45 AM (25 min)	**Panel-**Can Molecular Classification for Endometrial Carcinoma Replace Traditional Risk Stratification	**Moderator –** Dr. Kirti Srivastava **Panelist-** Dr. Shantanu Sapru Dr. Priyanka Singh Dr. Tayzeen Fatima Dr. Divya Kukereja Dr. Laxman Pandey Dr. Pragya Verma Dr. Vijay P.Raturi Dr. Raunaq Puri	Dr. Nishi Srivastava Dr. Shekhar Kesari

Time	Topic	Speaker	Chairperson
Session VIII – Genitourinary (Hall A)			
11:45 AM-11:55 AM (8+2 min)	Modern Management of Localized Prostate Cancer: Surgery, Radiotherapy, or Active Surveillance—How Do We Choose?	Dr. Neeraj Rastogi	Dr. Sudhir Singh Dr. Kailash Mittal Dr. Taruna Singh Dr. Sunil Kumar
11:55 AM-12:05 PM (8+2 min)	Ultra-Hypofractionation (SBRT) for Carcinoma of the Prostate: Current Evidence and Outcomes	Dr. Saket Pandey	
12:05 PM-12:25 PM (10+10 min)	**Debate:** Adjuvant Radiotherapy After Radical Prostatectomy: Early vs Delayed	For Early - Dr. Lincoln Pujari For Delayed - Dr. Arun Kumar Yadav	
Session IX - Patient Centric Oncology (Hall A)			
12:25 PM-12:35 PM (8+2 min)	Integrating Palliative Care early in the cancer journey	Dr. Punita Lal	Dr. Kamal Sahni Dr. Abhijit Mandal Dr. Teerthraj Verma
12:35 PM-12:45 PM (8+2 min)	The Impact of Providing needed information on the quality care of Cancer Patients	Dr. U.P. Shahi	
12:45 PM-12:55 PM (8+2 min)	Nutritional optimization during chemoradiation	Dr. Mohd. Shadab Alam	
Best Paper Presentations-Award Session (Hall A)			
12:55 PM-01:30 PM (35 min)	**Best Paper Presentations (Residents)**		
01:30 PM-01:50 PM (20 min)	**Valedictory Function (Hall A)**		
1:50 PM Onwards	**Lunch**		

ABOUT KSSSCI, LUCKNOW

Kalyan Singh Super Specialty Cancer Institute (KSSSCI), Lucknow, is an autonomous State Government institute under the Government of Uttar Pradesh, dedicated to comprehensive cancer care, research, and medical education. The institute aims to provide accessible, affordable, and high-quality cancer services to the people of Uttar Pradesh and neighbouring regions.

KSSSCI offers multidisciplinary cancer care encompassing prevention, screening, diagnosis, treatment, rehabilitation, and palliative care. Its major clinical and diagnostic services include:

- Comprehensive oncology services, including Medical Oncology, Surgical Oncology, Radiation Oncology, Radiodiagnosis, Nuclear Medicine, Pathology, and Laboratory Medicine.
- Advanced radiotherapy facilities, including IMRT, VMAT, image-guided radiotherapy (IGRT), stereotactic radiotherapy (SRT/SBRT), and brachytherapy.
- Modern diagnostic imaging facilities, including CT, MRI, digital radiography, mammography, fluoroscopy.
- Dedicated critical care, operation theatres, and supportive and palliative care services.
- Patient counselling, nutritional support, rehabilitation, and cancer awareness initiatives.

The institute is committed to academic excellence through medical education, postgraduate and super-specialty training, fellowships, continuing medical education programmes, and collaborative research.

With its multidisciplinary expertise, advanced technology, and patient-centred approach, KSSSCI strives to strengthen cancer care, promote research and innovation, and improve outcomes for patients across Uttar Pradesh and beyond.

Website: https://cancerinstitute.edu.in/











Department of RADIATION ONCOLOGY

Kalyan Singh Super Specialty Cancer Institute, Lucknow

The Department of Radiation Oncology at Kalyan Singh Super Specialty Cancer Institute (KSSSCI), Lucknow, is dedicated to delivering comprehensive, patient-centred cancer care through advanced radiotherapy, multidisciplinary collaboration, academic excellence, and research. The department is equipped with two high-energy linear accelerators, a Big Bore RT 4DCT simulator, an advanced Surface Guided Radiation Therapy (SGRT) system (AlignRT), and a high-dose-rate (HDR) brachytherapy after loader. These facilities support modern treatment techniques, including three-dimensional conformal radiotherapy (3DCRT), intensity-modulated radiotherapy (IMRT), volumetric modulated arc therapy (VMAT/RapidArc), image-guided radiotherapy (IGRT), stereotactic radiotherapy, and deep inspiration breath-hold (DIBH), enabling precise treatment delivery and improved patient positioning accuracy.

The department is committed to further strengthening precision oncology through the integration of next-generation technologies, including the CyberKnife® S7 robotic radiosurgery system for stereotactic radiosurgery (SRS) and stereotactic body radiotherapy (SBRT), and Tomo Therapy for advanced image-guided radiation treatment. These initiatives reflect the department's vision of adopting innovative technologies to enhance treatment precision, safety, and patient outcomes.

Teaching, training, and research are integral to the department's activities. The department conducts the Post-Doctoral Certificate Course (PDCC) in Radiation Oncology for Advanced Technology and provides observership and professional training opportunities. The National Medical Commission (NMC) inspection for the proposed MD (Radiation Oncology) postgraduate programme, with five seats, has been completed, marking a significant milestone towards expanding postgraduate medical education at the projects, scientific publications, conference presentations, and academic collaborations, fostering a culture of continuous learning and innovation.

Alongside clinical and academic activities, the department promotes cancer awareness, early detection, and patient education through community outreach initiatives. Through multidisciplinary teamwork, evidence-based clinical practice and a commitment to compassioance care, the department strives to improve treatment outcomes and quality of life for patients. With continued emphasis on technological advancement, academic development and scientific research, the Department of Radiation Oncology aims to strengthen its role as a centre of excellence in cancer care and education in Uttar Pradesh and beyond.











Department of Radiation Oncology, KSSSCI, Lucknow



Dr. M.LB. Bhatt
Professor



Dr. Sharad Singh
Professor and Head



Dr. Pramod Kumar Gupta
Additional Professor



Dr. Rumita Singh
Assistant Professor



Mr. Ragul T.
Medical Physicist/Scientist-I



Dr. Sumanta Manna
Medical Physicist/Scientist-I



Dr. Ritika Ranjan
Senior Resident



Dr. Himanshu Verma
Senior Resident



Dr. Neha Rajput
Senior Resident



Dr. Sonali Gupta
Senior Resident



Sushma Evangelin
Medical Physics Resident



Anupama NV
Medical Physics Resident



Mr. Vishnu Kumar
RT Technologist



Mr. Abhishek Panday
RT Technologist



Smita Verma
RT Technologist



Mr. Sanjiv Kumar
RT Technologist



Mr. Kavin Raj
RT Technologist



Mr. Mohit Gupta
RT Technologist



Mr. Aman Gupta
RT Technologist



Mr. Deepak
RT Technologist



Mr. Ashish Jaiswal
RT Technologist



Mr. Rahul Kumar
RT Technologist



Anushka Rawat
RT Technologist



Mr. Ajay Kumar
RT Technologist



Monika Roy
RT Technologist

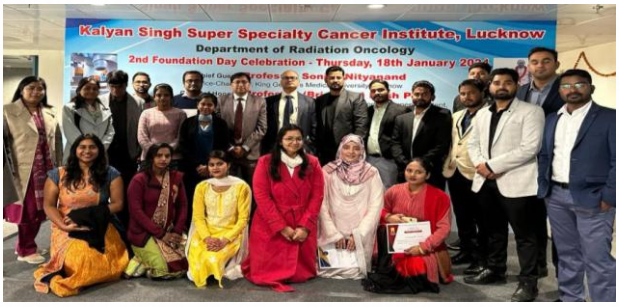


Mr. Rohit Kumar
DEO

Glimpse of Departmental Activities



1st Foundation Day



2nd Foundation Day



SGRT Go Live: fifth center in India and the first center in Uttar Pradesh, 8th April 2022



Celebration of 1000 patients in Radiation Oncology



First PDCC (Radiation Oncology for Advance Technology) Batch, September 2025



8th Foundation Day, 2026



SGRT India: Advancing Radiation Therapy in India, 8th Feb, 2026



CME by Prof. Dr. M. Thill, MD, PhD on 5th March, 2026





Glimpse of Awareness Activities



World Cancer Day, 4th Feb 2022



World Cancer Day, 4th Feb 2025



Breast Cancer Awareness Month October 2025



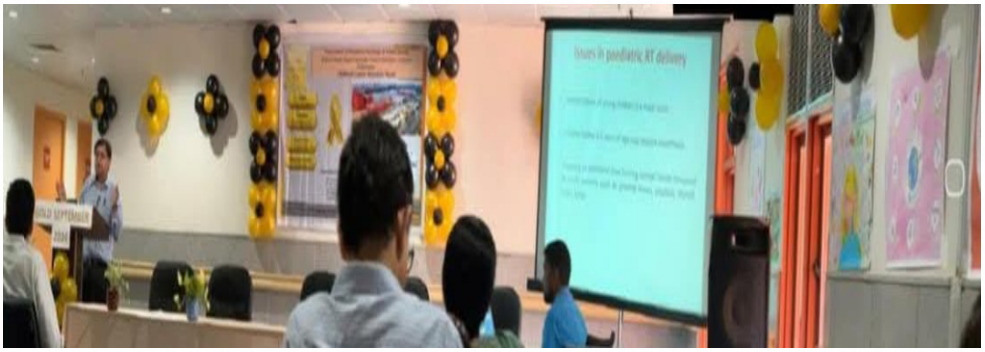
World Cancer Day, 4th Feb 2026



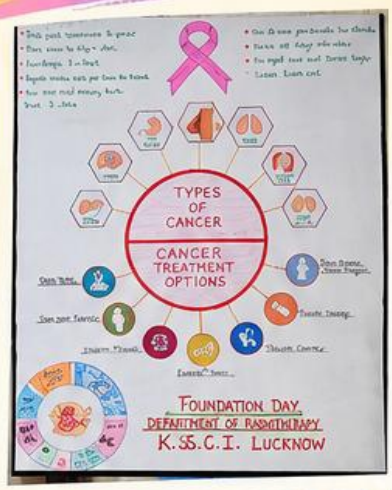
World Head and Neck Cancer Day, 27th July 2026

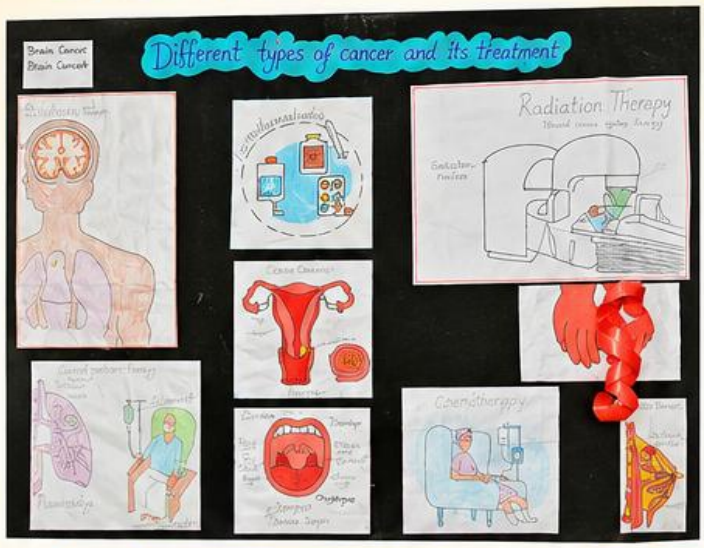


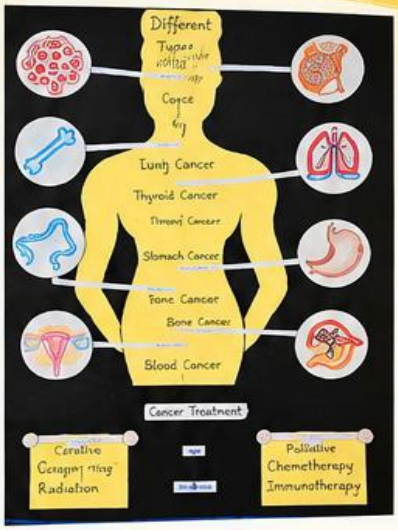
Cancer Awareness Week

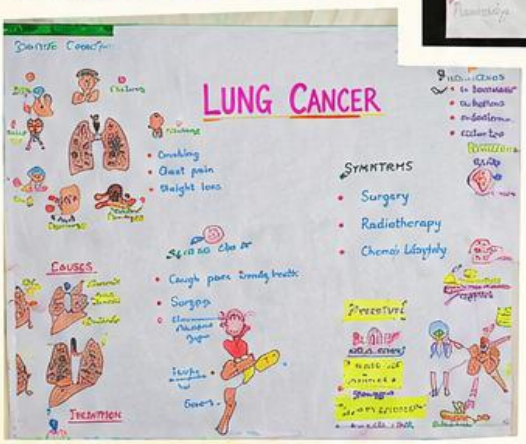


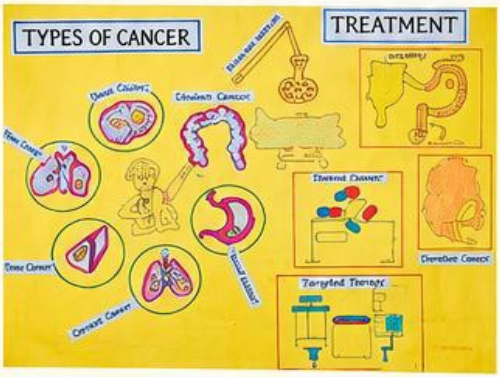
Childhood Cancer Awareness Month

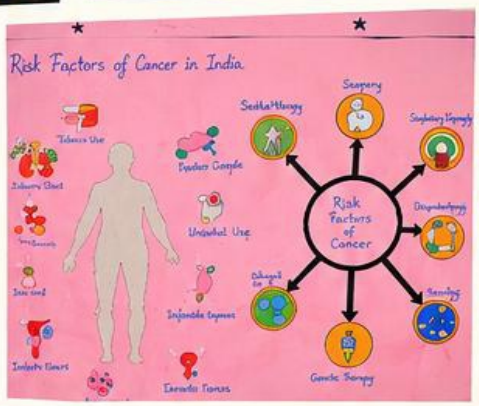

TYPES OF CANCER
CANCER TREATMENT OPTIONS
FOUNDATION DAY
DEPARTMENT OF RADIOTHERAPY
K.S.S.C.I. LUCKNOW

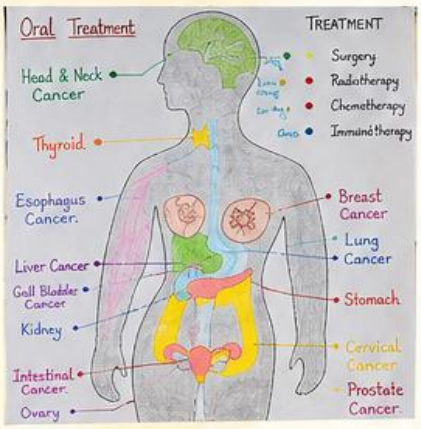

Different types of cancer and its treatment
Brain Cancer
Radiation Therapy
Chemotherapy

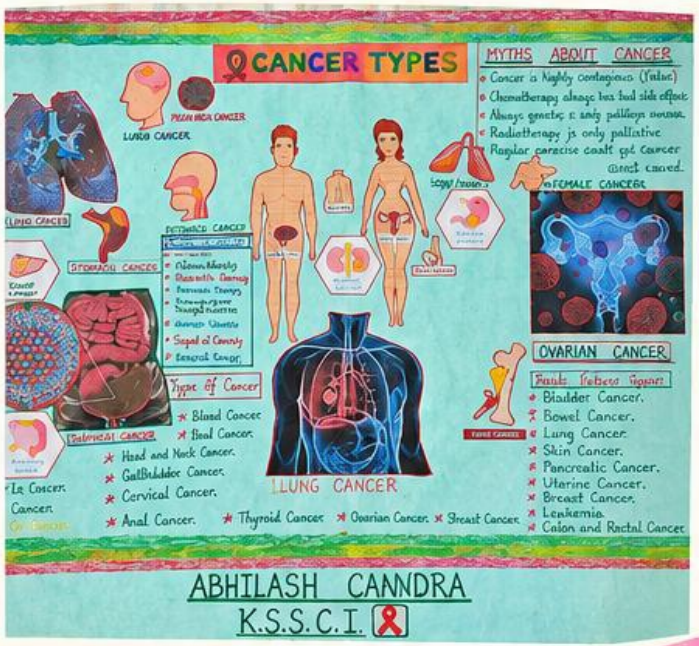

Different Types of Cancer
Lung Cancer
Thyroid Cancer
Stomach Cancer
Bone Cancer
Blood Cancer
Cancer Treatment
Curative
Palliative
Chemotherapy
Immunotherapy

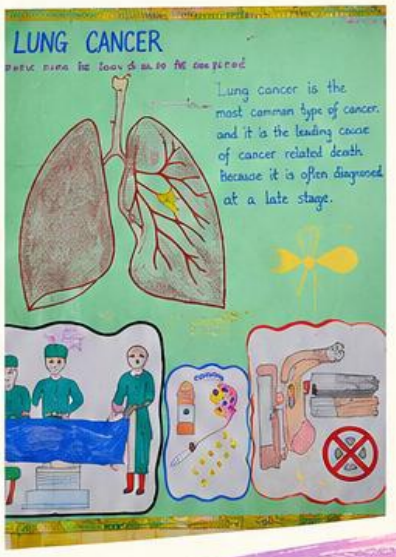

LUNG CANCER
SYMPTOMS
Surgery
Radiotherapy
CAUSES
PREVENTIVE

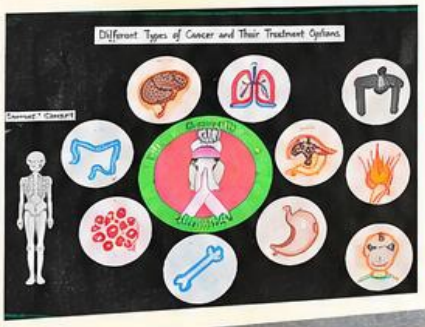

TYPES OF CANCER
TREATMENT
Targeted Therapy


Risk Factors of Cancer in India
Risk Factors of Cancer
Surgery
Radiotherapy
Chemotherapy
Genetic Therapy


Oral Treatment
TREATMENT
Surgery
Radiotherapy
Chemotherapy
Immunotherapy
Head & Neck Cancer
Thyroid
Esophagus Cancer
Liver Cancer
Gall Bladder Cancer
Kidney
Intestinal Cancer
Ovary
Breast Cancer
Lung Cancer
Stomach
Cervical Cancer
Prostate Cancer


CANCER TYPES
MYTHS ABOUT CANCER
LUNG CANCER
STOMACH CANCER
OVARIAN CANCER
Head and Neck Cancer.
GallBladder Cancer.
Cervical Cancer.
Anal Cancer.
Thyroid Cancer
Ovarian Cancer.
Breast Cancer
Bladder Cancer.
Bowel Cancer.
Lung Cancer
Skin Cancer.
Pancreatic Cancer.
Uterine Cancer.
Breast Cancer.
Leukemia
Colon and Rectal Cancer
ABHILASH CANNDRA
K.S.S.C.I.


LUNG CANCER
Lung cancer is the most common type of cancer, and it is the leading cause of cancer related death because it is often diagnosed at a late stage.


Different Types of Cancer and Their Treatment Options




STOP CANCER


WORLD MENTAL HEALTH DAY
Strong
Talents
Joyful
Compassion
Powerful
Unique
fearless
Be Kind to Your Mind
IT'S OKAY TO NOT BE OKAY!
MENTALHEALTHATWORK

ABSTRACTS

ABS-001

Patient-Specific Dosimetric Optimization for Electron Therapy in Popliteal Fossa Skin Malignancy: A Comparative Evaluation of Tissue Compensator, Bee Wax and Wet Cotton Bolus

Shivani Malik*, Ashok Kumar Arya, Renu Singh, Pranjal Srivastava
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Senior Resident, Email: shivanimalik600@gmail.com

Introduction: Electron beam therapy is the preferred modality for superficial skin malignancies because of its high surface dose and rapid dose fall-off. However, treatment over irregular sites such as the popliteal fossa are challenging because of surface irregularity, post-traumatic contracture, and variable tissue thickness compromise target coverage and dose homogeneity. Limited Evidence is available comparing contour-correction techniques.

Aim & Objectives: To analyse the dosimetric variability of customized tissue compensator, wax bolus, and wet cotton bolus for electron therapy of popliteal fossa skin malignancy and to identify the optimal technique.

Materials and Methods: A comparative dosimetric planning study was performed in a 40-year-old male with recurrent squamous cell carcinoma of the left popliteal fossa. CT simulation was performed. Multiple treatment plans were generated using identical beam parameters and different contour-correction techniques. Dose-volume histogram analysis, comparing target coverage (D95, D98, V95%), homogeneity (D2, Dmean, HI), conformity, and dose distribution were evaluated.

Results: Treatment plan with 8 MeV Electron beam resulted, inadequate target coverage, while 12 MeV plan leads to excessive hotspots (>140%). Tissue compensator improved the dose conformity but incompletely adapted to the popliteal concavity. Photon plan with wax bolus achieved acceptable coverage but increased deeper normal tissue irradiation. 12 MeV electron plan with wet cotton bolus achieved the best dosimetric profile, with superior target coverage, improved homogeneity and conformity, minimal air gaps, fewer hotspots, and preservation of electron dose fall-off.

Conclusion: Wet cotton bolus is a simple, inexpensive, and effective contour-correction technique for electron radiotherapy over irregular surfaces. Its favourable dosimetric profile and easy availability makes it a better practical option in resource-limited settings. Prospective clinical studies are warranted.

ABS-002

Ultrasound beyond the Probe – A Tool for Diagnosis, 2D Radiotherapy Planning and Follow-up in a Resource-Constrained Cancer Centre

Virendra Singh*
Department of Radiation Oncology, MLN Medical College, Prayagraj, Uttar Pradesh
*Professor and Head, Email: singhv2003@gmail.com

Background: In resource-limited settings, access to CT simulation and advanced image-guided radiotherapy is often restricted. Ultrasound (USG), an affordable, real-time, radiation-free modality, can be extended beyond diagnosis to support 2D radiotherapy planning on telecobalt units and oncologic follow-up. This prospective observational study evaluates an indigenous low-cost USG-based technique in six patients, demonstrating its utility for tumour localisation, field marking, treatment verification, and point-of-care assessment in a resource-constrained radiotherapy centre.Radiotherapy is essential in cancer management, but many centres rely on 2D telecobalt units due to limited access to CT simulation and IGRT facilities.Ultrasound provides a portable, non-ionising alternative for real-time imaging. This study presents an indigenous technique utilising conventional USG for diagnosis, 2D planning, and follow-up across six patients.

Aims and Objective: This prospective observational study evaluates an indigenous low-cost USG-based technique in six patients, to know its utility for tumour localisation, field marking, treatment verification, and point-of-care assessment in a resource-constrained radiotherapy centre.

Materials and Method: This prospective observational study was conducted at the Department of Radiation Oncology, MLN Medical College, Prayagraj, from June 2025 to June 2026. Six patients with accessible tumours suitable for 2D telecobalt-based radiotherapy were included. A standard diagnostic ultrasound machine was used.

A. Diagnostic and Staging Role
USG was employed for evaluation of thyroid nodules, testicular masses, abdominal/pelvic tumours, subpleural lung metastases, and POCUS in critical care (ONSD for ICP and IVC for volume status).

B. 2D Radiotherapy Planning Using USG
1. Tumour depth from skin to midpoint of GTV was measured.
2. Superior-inferior, antero-posterior, and transverse dimensions were recorded; a 2 cm radial margin defined CTV/PTV.
3. SAD fields were marked on the skin.
4. On the telecobalt machine, SSD was adjusted based on USG depth for appropriate SAD setup. Common arrangements: AP-PA, four-field box, or wedged fields.
5. Shielding was planned using USG data correlated with available imaging and anatomical landmarks.

C. Follow-up

Post-treatment response, recurrence detection, and onco-emergencies were assessed. One patient underwent brain mastectomy for meningioma with ventriculomegaly, where USG monitored post-operative collections and ventricular size.

Results: USG successfully localised tumours and facilitated 2D planning in all six patients (cervix, head & neck, breast, and others). Mean planning time was short with no added cost or radiation. USG detected additional findings (e.g., metastases, nodules requiring FNAC) and guided critical care. In the sixth patient, post-mastectomy USG confirmed resolution of collections and ventriculomegaly status.

Conclusion: This low-cost indigenous technique extends ultrasound's utility in resource-constrained environments, enabling accurate 2D planning where CT is unavailable. Point-of-care ultrasound (POCUS) integration (ONSD, IVC) adds significant value in onco-critical care. Limitations include operator dependency and acoustic window restrictions. The technique is particularly relevant in centres similar to ours with predominant reliance on 2D telecobalt machines. Ultrasound is a versatile, radiation-free tool for diagnosis, 2D telecobalt planning, and follow-up in LMIC cancer centres. Its integration improves access, reduces costs, and maintains care quality, as demonstrated in this six-patient series.

ABS-003

Assessment of PFS, OS and QoL in High Grade Glioma Treated with Hypofractionated versus Conventional Radiotherapy Combined with Concurrent and Adjuvant Temozolomide

Naveen G*, Radha Kesariwani, Virendra Singh, Dev Kumar Yadav, Vivek Kumar Pandey
Department of Radiotherapy, Moti Lal Nehru Medical college /SRN hospital, Prayagraj, Uttar Pradesh
*Junior Resident, Email: nbrightsun@gmail.com

Introduction: Standard therapy for high-grade glioma includes maximal safe surgical resection followed by conventional fractionated radiotherapy combined with concurrent and adjuvant temozolomide. However, elderly patients and those with poor performance status are often unable to tolerate prolonged treatment, and loss to follow-up is common. Hypofractionated radiotherapy may offer comparable survival outcomes while reducing overall treatment duration and potentially improving quality of life.

Aim and Objective: Progression-free survival (PFS), overall survival (OS), and quality of life (QoL) were assessed. Chi-square test was used for statistical analysis, and a p-value <0.05 was considered statistically significant.

Materials and Methods: Thirty patients (15 in each control and study group) with histologically confirmed high-grade glioma attending the Radiotherapy OPD from 10-04-2025 to 04-08-2026 were included in this prospective randomized clinical trial. Both groups received concurrent temozolomide 75 mg/m² during radiotherapy. The adjuvant dose was 175 mg/m² for 5 days every 28 days for 12 cycles. The conventional radiotherapy group received 60 Gy in 30 fractions, whereas the study group received 48 Gy in 16 fractions. Progression-free survival (PFS), overall survival (OS), and quality of life (QoL) were assessed. Chi-square test was used for statistical analysis, and a p-value <0.05 was considered statistically significant.

Conclusion: In this cohort, hypofractionated radiotherapy achieved comparable-to-better overall survival and clearly better post-treatment quality of life (KPS) compared with conventional radiotherapy, with a modestly shorter PFS that requires confirmation with formal survival statistics. Given its shorter overall treatment duration, hypofractionated RT appears to be a reasonable and patient-friendly alternative to conventional RT in high-grade glioma, especially where functional preservation is a priority.

ABS-004

Prospective evaluation of the feasibility, toxicity and treatment outcomes of Hypofractionated Radiotherapy with concurrent and adjuvant temozolomide in good-risk patients with newly diagnosed high-grade glioma treated with Telecobalt-60

Naveen G*., Radha Kesarwani, Virendra Singh, Dev Kumar Yadav, Vivek Kumar Pandey, Saurabh Singh, Mansi Malik, Vijayalakshmi

Department of Radiotherapy, Moti Lal Nehru Medical college /SRN hospital, Prayagraj, Uttar Pradesh

*Junior Resident, Email: nbrightsun@gmail.com

Introduction: Hypofractionated Radiotherapy (HFRT) may offer comparable survival outcomes to standard schedules in good-risk high-grade glioma patients using a Telecobalt-60 machine, while reducing overall treatment duration and improving quality of life.

Aim and Objective:1) Feasibility,2) Toxicity and 3) Treatment outcomes in terms of progression free survival

Materials and Methods: In this prospective study (April 2025 – August 2026), 15 histologically confirmed high-grade glioma patients aged 18–70 years were enrolled. Patients received HFRT: 30 Gy in 10 fractions phase I, followed by a boost of 18 Gy in 6 fractions, with concurrent temozolomide (75 mg/m2) and adjuvant temozolomide (175 mg/m2 for 5 days every 28 days for 12 cycles).

Results: 15 patients (10 males, 5 females; mean age 40.7 years) were included. The most common presenting symptom was headache (14) and most common location was the frontal lobe (11). Histopathology showed Grade IV glioblastoma in 12 patients and Grade III in 3. Eight patients (53.3%) underwent gross total resection (GTR) and 7 (46.7%) subtotal resection (STR). Fatigue, alopecia, scalp erythema, and headache were the most common toxicities during radiotherapy; no treatment interruptions occurred due to toxicity. At a median follow-up of 5 months (range 2–16 months), median PFS was 8 months with a mean PFS of 8.5 months (SD±4.1; 95% CI: 6.4–10.5 months). No clinical or radiological disease progression was recorded.

Conclusion: The HFRT regimen using Telecobalt-60 is feasible and well-tolerated in good-risk patients with high-grade glioma without adding significant morbidity.

ABS-005

Prospective Comparative Study Comparing Conventional Radiotherapy Versus 6 Days a Week Radiation with Concomitant Weekly Cisplatin in Head and Neck Cancer Patients

Mansi Malik[*], Kashif N., Vijayalakshmi, Naveen, Saurabh, Dev K. Yadav, Vivek Kumar Pandey, Virendra Singh, Radha Kesarwani
Department of Radiation Oncology, Moti Lal Nehru Medical College, Prayagraj, Uttar Pradesh
[*]Junior Resident, Email: Mansimalik999@gmail.com

Introduction: Tumor repopulation during conventional radiotherapy is a well-recognized barrier to achieving optimal locoregional control in head and neck cancers. Accelerated fractionation has been proposed to overcome this limitation by reducing overall treatment time.

Aims and Objectives: To compare the efficacy and toxicity of conventional radiotherapy with six days per week accelerated radiotherapy, both administered with concomitant weekly cisplatin, in patients with locally advanced head and neck squamous cell carcinoma.

Materials and Methods: A prospective randomized study of 100 patients (50 per arm) with Stage II–IVA head and neck squamous cell carcinoma compared conventional radiotherapy with accelerated six-days-per-week radiotherapy. Both groups received weekly cisplatin 40 mg/m². Tumor response was assessed using RECIST 1.1, while toxicities were graded using RTOG/EORTC and CTCAE v4.03. Patients were followed monthly for 3 months and then quarterly up to 12 months.

Results: The accelerated arm demonstrated significantly higher complete response (64% vs. 30%; p=0.0054), fewer treatment interruptions, and improved progression-free survival (p=0.025). Acute Grade 2–3 mucositis and skin reactions were more frequent but manageable. Chronic toxicities were mild.

Conclusion: Six-days-per-week radiotherapy with concurrent weekly cisplatin improved treatment response and progression-free survival with acceptable toxicity.

ABS-006

Clinicoradiological Features and Treatment Challenges in Skull Base Malignancies: An 11-Patient Case Series

Vijayalakshmi M*, Virendra Singh
Department of Radiation Oncology, Moti Lal Nehru Medical College, Prayagraj, Uttar Pradesh
*Junior Resident, Email: vm06208@gmail.com

Purpose: Skull base malignancies are rare, heterogeneous tumors with challenging surgical access and high morbidity. This retrospective case series describes the clinicoradiological features, psychiatric morbidity, treatment compliance, and outcomes in 11 consecutive patients managed over 8 years.

Methods: We reviewed records of 11 patients with histologically confirmed skull base malignancies. Data included demographics, clinical presentation, multimodal imaging (CT, MRI, PET-CT, ultrasound), cranial nerve deficits, psychiatric morbidity, treatment modalit ies, and follow-up.

Results: Mean age was 41.2 years (range 7–67 years); 5 patients were male and 6 females. The sphenoid/nasopharyngeal region was the origin in 5/11 cases, and intracranial extension was present in 6/11. Cranial nerve palsy occurred in 4/11. Depression with radiotherapy refusal was documented in 1/11 patients; another patient with depression underwent repetitive transcranial magnetic stimulation (rTMS), which improved mood and compliance, enabling completion of radiotherapy/chemotherapy. Ten of 11 patients received chemotherapy, 5/11 received concurrent chemoradiotherapy, and 1/11 underwent surgery followed by radiotherapy. Median follow-up was 6 months (range 1–54 months); 5/11 patients died.

Conclusion: In this small retrospective cohort, extracranial-to-intracranial invasion was the predominant pattern, and multimodal imaging appeared essential for radiation treatment planning. External-beam radiotherapy with or without concurrent cisplatin-based chemotherapy was the primary treatment modality in 10 of 11 patients in whom surgery was not feasible, and was associated with variable survival (6 months–4.5 years). Psychiatric morbidity (depression) impaired radiotherapy compliance in one patient; rTMS successfully restored compliance in another and warrants further investigation as an adjunct in radiation oncology practice. Larger multicenter studies are needed before firm conclusions regarding radiotherapy effectiveness can be drawn.

ABS-007

Chronoradiotherapy in Locally Advanced Oral Cavity Cancer: A Prospective Comparative Study

Arushi Dwivedi*
Department of Radiation Oncology, J.K. Cancer Institute/GVSM Medical College, Kanpur, Uttar Pradesh
*Junior Resident, Email: arushiliza18@gmail.com

Introduction: Chronoradiotherapy aims to exploit temporal variations in tumour biology, perfusion and radiosensitivity by delivering radiotherapy at an individualized time of peak tumour temperature. This prospective comparative pilot study evaluated whether timing of radiotherapy could improve the balance between tumour response and treatment-related toxicity in patients with locally advanced oral cavity cancer.

Aims & Objectives: To evaluate the effect of individualized timing of radiotherapy during the peak tumour- temperature window on treatment response in locally advanced oral cavity cancer, and to compare acute treatment-related toxicity between chronoradiotherapy and conventional radiotherapy.

Materials & Methods: A prospective comparative pilot study was conducted in 20 patients with Stage III/IV locally advanced oral cavity cancer without distant metastasis. Patients were allocated into two groups of 10 each by simple randomization. The chronoradiotherapy arm received radiotherapy during the individually documented peak tumour-temperature window, identified using contact surface thermometry, while the conventional arm received radiotherapy at conventional timings. Both groups received 70 Gy in 35 fractions, 2 Gy per fraction, five fractions per week, with weekly cisplatin 35 mg/m² using Cobalt-60 teletherapy. Treatment response and acute mucosal and skin toxicity were assessed.

Results: Complete response was observed in 5/10 (50%) patients in the chronoradiotherapy arm compared with 4/10 (40%) in the conventional arm. Objective response rate was 50% in both groups. Grade 3 acute mucosal and/or skin toxicity occurred in 1/10 (10%) patients in the chronoradiotherapy arm compared with 3/10 (30%) in the conventional arm. Early recurrence occurred in 1/10 (10%) versus 2/10 (20%), respectively. There was one death in the chronoradiotherapy arm and none in the conventional arm. Median overall survival was not reached.

Conclusion: Chronoradiotherapy demonstrated a favourable numerical response–toxicity signal, with higher complete response and lower Grade 3 toxicity. However, the small cohort and immature survival data preclude definitive conclusions. Larger prospective studies with standardized temperature assessment and mature survival outcomes are warranted.

ABS-008

Definitive Interstitial High-Dose-Rate Brachytherapy for Carcinoma of the Angle of Mouth: A Case Report Employing a Function- and Cosmesis-Preserving Approach

Bushra Khalid*, Adnan Akhtar, Aditi Mishra, Kirti Srivastava
Department of Radiotherapy, King Georges Medical University, Lucknow, Uttar Pradesh
*Senior Resident, Email: drbushrakhalid12@gmail.com

Background: Carcinoma involving the angle of mouth presents unique therapeutic challenges because surgical management may significantly compromise cosmesis, oral competence, speech, and quality of life. Interstitial high-dose-rate (HDR) brachytherapy provides a conformal organ-preserving treatment option with rapid dose fall-off and favorable cosmetic outcomes. We report a case of squamous cell carcinoma of the right angle of mouth treated successfully with definitive interstitial HDR brachytherapy.

Case Presentation: A 52-year-old woman with smoking history for last 15 years presented with complaints of a lesion involving the right angle of mouth. Clinical examination revealed involving the right angle of mouth without skin involvement and a palpable ipsilateral level IB lymph node. A 1 × 1 cm firm, mobile, non-tender lymph node was palpable in the right level IB region. Fine needle aspiration cytology from the right submandibular lymph node was suggestive of reactive lymphoid hyperplasia. On HPE, it was confirmed as squamous cell carcinoma. Following multidisciplinary tumor board discussion, the patient was planned for definitive interstitial HDR brachytherapy, with surgery reserved as salvage treatment because of concerns regarding postoperative functional and cosmetic morbidity. The patient received HDR interstitial brachytherapy to a total dose of 55 Gy in 11 fractions delivered twice daily with an interfraction interval of 6 hours. Treatment was completed uneventfully with acceptable acute toxicities. Follow-up demonstrated gradual resolution of mucosal and skin reactions with no clinical evidence of recurrence.

Conclusion: This case highlights the feasibility, tolerability, and organ preservation advantage of interstitial brachytherapy in carefully selected patients with carcinoma angle of mouth.

ABS-009

A Prospective Evaluation of Time Toxicity in Locally Advanced Inoperable Head-Neck Carcinoma

Ankita Kumari*, JK Verma
Department of Radiotherapy, J.K. Cancer Institute, Kanpur, Uttar Pradesh
*Junior Resident, Email: ankitarajput753@gmail.com

Introduction: Time toxicity is an emerging patient-centered outcome that quantifies the proportion of time patients spend in contact with the healthcare system during cancer treatment. In locally advanced inoperable head and neck squamous cell carcinoma (HNSCC), prolonged treatment schedules and repeated hospital visits may substantially increase the hidden burden of care, particularly in resource-limited settings.

Aim and Methods: This prospective observational study is conducted in the Department of Radiation Oncology at J.K. Cancer Institute, Kanpur, to evaluate time toxicity in patients with stage IVA and IVB inoperable HNSCC. A total of 100 consecutive patients are enrolled. Fifty-three patients received conventional concurrent chemoradiotherapy (CTRT), while 47 patients received palliative treatment, including injection methotrexate (n=22), tablet gefitinib (n=10), palliative radiotherapy followed by tablet gefitinib (n=7), and palliative radiotherapy followed by injection methotrexate (n=8). Patients are followed prospectively, and treatment outcomes are documented.

Results: Of the 100 patients, 75 are males and 25 females. In the palliative group, 32 are males and 15 females, while the CTRT group comprised 43 males and 10 females. Among the 47 palliative patients, 31 (66.0%) are on continuous monthly treatment, 7 (14.9%) were lost to follow-up (LAMA), and 9 (19.1%) died. Among the 53 patients treated with conventional CTRT, 31 (58.5%) remained on follow-up, 12 (22.6%) were LAMA, 5 (9.4%) died, and 5 (9.4%) developed recurrent or residual disease during follow-up.

Conclusion: Patients with locally advanced inoperable HNSCC experience a considerable treatment-related burden. Time Toxicity is a critical but often overlooked endpoint in LAHNSCC. While CTRT remains superior for disease control, it imposes a major burden on patients' time with daily visits and frequent admissions. Palliative treatment, in contrast, provides significantly lower Time Toxicity and better QoL. For advanced inoperable patients with limited life expectancy, treatment decisions should incorporate Time Toxicity along with efficacy to deliver truly patient-centered care. Long-term surveillance is required to establish long-term oncologic equivalence.

ABS-010

Prospective Study of Minimal Face-and-Neck Immobilization Using Surface-Guided Radiation Therapy in Head-and-Neck Radiotherapy

Ritika Ranjan*, Sharad Singh, Pramod Kumar Gupta, Rumita Singh, Ragul T, Sumanta Manna
Department of Radiation Oncology, Kalyan Singh Super Specialty Cancer Institute, Lucknow, Uttar Pradesh
*Senior Resident, Email: ritikaranjan18@gmail.com

Background: Conventional thermoplastic masks provide reproducible immobilization during head-and-neck radiotherapy but may cause discomfort and claustrophobia. Surface-guided radiation therapy (SGRT) enables non-ionizing, real-time surface monitoring and may permit less restrictive immobilization. This prospective study evaluated minimal face-and-neck immobilization with SGRT, focusing on patient comfort, acute toxicity, and treatment workflow.

Aim: To evaluate patient comfort, acute toxicity, and treatment workflow using minimal face-and-neck immobilization with SGRT during head-and-neck radiotherapy.

Materials and Methods: Thirty patients with head-and-neck cancer were prospectively treated according to the institutional protocol. Twenty-five patients used an open-face thermoplastic mask covering the forehead and chin, while five used a Vac-Loc system with a chin strap. Shoulder motion was restricted using Vac-Loc or hand-held retractors. Surface information and CT-derived contours were imported into the AlignRT SGRT system. Patients received 60–70 Gy in 30–33 fractions. Initial positioning was performed using predefined surface regions of interest, followed by CBCT verification and six-dimensional robotic couch correction. A new surface reference was then acquired for real-time intrafraction monitoring and subsequent-fraction setup. Patient comfort was assessed using a six-point Likert scale at simulation, on the first treatment day, and at treatment completion. Treatment time and acute skin and mucosal toxicities were recorded.

Results: Mean mask comfort, confidence in continued mask tolerability, and overall satisfaction scores were 5.11 ± 0.81, 5.63 ± 0.60, and 5.37 ± 1.30, respectively. Skin toxicity was grade 1 in 7, grade 2 in 13, and grade 3 in 10 patients. Mucosal toxicity was grade 1 in 4, grade 2 in 20, and grade 3 in 6 patients. Mean treatment time was 21.6 ± 8.4 min. SGRT enabled continuous surface monitoring, while CBCT provided definitive positioning verification and correction.

Conclusion: Minimal face-and-neck immobilization with SGRT was feasible and associated with high patient-reported comfort and satisfaction. Larger comparative studies are warranted to evaluate setup

ABS-011

Hypofractionated Chemoradiotherapy Versus Conventional Chemoradiotherapy in Cervical Cancer

Ongshong B Phom*, Anshu Kumar Goel
Department of Radiotherapy, J.K. Cancer Institute, G.S.V.M. Medical College, Kanpur, Uttar Pradesh
*Junior Resident, Email: ongshongp@gmail.com

Introduction: Concurrent chemoradiotherapy is the standard treatment for cervical cancer. Hypofractionated radiotherapy may reduce treatment duration while maintaining comparable outcomes.

Aims & Objectives: To compare acute toxicity, treatment feasibility and compliance, tumor response at 3 months, and early and late radiation toxicities at 6 and 12 months between conventional and hypofractionated chemoradiotherapy.

Materials & Methods: This prospective randomized study was conducted in the Department of Radiotherapy, J.K. Cancer Institute, Kanpur, from August 2025 to August 2026. Forty patients with confirmed squamous cell carcinoma of the uterine cervix were enrolled, with 20 patients in each arm. Arm A received EBRT 46 Gy in 23 fractions (2 Gy/fraction) over 4.3 weeks with weekly cisplatin 40 mg/m². Arm B received EBRT 40 Gy in 15 fractions (2.66 Gy/fraction) over 3 weeks with weekly cisplatin 40 mg/m². Acute and late toxicities, treatment feasibility, compliance, and tumor response were assessed.

Results: Forty patients were evaluated, with 20 in each arm. HPV positivity was observed in 85% of patients in the conventional arm and 80% in the hypofractionated arm, while HPV vaccination was reported in 15% and 18%, respectively. Acute and late toxicities were comparable between groups, with no significant difference. Complete response was observed in 70% versus 65% at 3 months and 75% versus 70% at 6 months in the conventional and hypofractionated arms, respectively. One-year progression-free survival was 78% versus 73%, disease-free survival 75% versus 70%, and overall survival 85% versus 82%, respectively. No treatment-related deaths were observed.

Conclusion: Hypofractionated chemoradiotherapy demonstrated comparable toxicity, treatment response, and one-year survival outcomes to conventional chemoradiotherapy. It may be a feasible alternative for reducing treatment duration. Larger studies with longer follow-up are required to establish oncological outcomes and late toxicity.

ABS-012

A Prospective Study to Compare Conventional Radiotherapy and Hypofractionated Radiotherapy with Concurrent Cisplatin in Treatment of Oral Cavity Cancer

Jitender Kashyap[*], S.N. Prasad
Department of Radiation Oncology, J.K. Cancer Institute, Kanpur, Uttar Pradesh
[*]Junior Resident, Email: Docjk20@gmail.com

Introduction: Concurrent chemoradiotherapy is a standard treatment for advanced oral cavity cancer. Conventional radiotherapy requires 7 weeks, whereas hypofractionation may reduce treatment time while maintaining comparable tumor control and toxicity.

Aims & Objectives: To compare loco-regional tumor response, acute toxicity, and quality of life between conventional radiotherapy (70 Gy/35 fractions) and hypofractionated radiotherapy (60 Gy/20 fractions), both with concurrent cisplatin.

Materials & Methods: This prospective comparative study was conducted at the Department of Radiation Oncology, J.K. Cancer Institute, Kanpur. Patients aged 18–70 years with histologically proven oral cavity cancer and Karnofsky Performance Status (KPS) ≥70 were randomized into two arms. Arm A received 70 Gy/35 fractions with three-weekly cisplatin 100 mg/m², while Arm B received 60 Gy/20 fractions with the same chemotherapy. Pre-treatment evaluation included contrast-enhanced computed tomography (CECT) of the face and neck, baseline investigations, and KPS. Toxicity was assessed weekly using World Health Organization (WHO) and Common Terminology Criteria for Adverse Events (CTCAE) criteria. Response at 3 months was assessed clinically and radiologically according to RECIST 1.1. Quality of life was evaluated using the University of Washington Quality of Life (UW-QOL) Questionnaire v4. Categorical variables were compared using the Chi-square test.

Results: Sixty patients were analyzed, with 30 in each arm. Response rate at 3 months was 90.0% in both arms (p=1.00). Grade 3–4 mucositis occurred in 40.0% versus 43.3% (p=0.78), skin reaction in 16.7% versus 20.0% (p=0.85), hematologic toxicity in 13.3% versus 16.7% (p=0.91), and dysphagia in 20.0% versus 23.3% (p=0.82) in Arms A and B, respectively. Mean UW-QOL scores were 68.4±10.3 versus 70.2±9.8 (p=0.42).

Conclusion: Hypofractionated radiotherapy with concurrent cisplatin demonstrated comparable 3-month tumor response, toxicity, and quality of life to conventional chemoradiotherapy. It may reduce treatment duration without compromising short-term outcomes. Longer follow-up is required to evaluate late toxicity and survival.

ABS-013

A prospective cohort study comparing CTCAE and patient-reported outcomes-CTCAE (PRO-CTCAE) for evaluation of toxicities in head and neck cancer patients undergoing definitive radio-chemotherapy

Tanvee Singla*
Homi Bhabha Cancer Hospital (HBCH), Varanasi, Uttar Pradesh
*Senior Resident, Email: drtanvee25@gmail.com

Introduction: Physician-assessed toxicity grading systems include CTCAE, RTOG, EORTC, and DAHANCA. Several patient-reported toxicity and quality-of-life instruments are available for head and neck cancer, including FACT-H&N, EORTC QLQ-H&N35, HNCI, HNQOL, MSASI-HN, PRO-CTCAE, and UW-QOL. PRO-CTCAE offers a practical advantage for Indian patients, requiring only 3–5 minutes to complete, while retaining grading comparable with physician-assessed toxicity.

Aims and objectives: To compare physician-assessed CTCAE with patient-reported PRO-CTCAE toxicity grades in patients undergoing definitive chemoradiotherapy (CTRT).

Materials and Methods: Patients with head and neck carcinoma undergoing radical CTRT were eligible. We assessed agreement between CTCAE and PRO-CTCAE using Gwet's AC2. We used linear regression to compare mean toxicity grades and their 95% confidence intervals (CIs).

Results: Between November 2024 and December 2025, 131 patients were screened, and 113 were enrolled. Four toxicity domains—xerostomia, dysphagia, mucositis, and dermatitis—were assessed. Xerostomia demonstrated substantial baseline agreement (Gwet's AC2=0.74), decreasing to moderate during CTRT (0.37–0.60). Mean grades were separated, although 95% CIs frequently overlapped. Dysphagia showed moderate agreement throughout (0.45–0.60), with substantial overlap in mean grades. Mucositis showed substantial baseline agreement (0.69), decreasing to fair–moderate during CTRT (0.32–0.49); mean grades remained separated with minimal CI overlap. Dermatitis demonstrated almost perfect baseline agreement (0.94), substantial agreement at 5 fractions (0.79), and moderate agreement from 10–30 fractions (0.49–0.60). PRO-CTCAE consistently reported higher mean grades than CTCAE, with minimal CI overlap.

Conclusion: Discordance between grading systems was most evident for mucositis and dermatitis at 10–30 fractions. Xerostomia showed separated mean grades despite overlapping CIs, whereas dysphagia and dermatitis from baseline to 5 fractions demonstrated comparable mean toxicity grades.

ABS-014

Cervical Cancer Brachytherapy: A 2024 Audit from a Tertiary Care Centre in Lucknow

Shikhar S Gupta*, A Akhter, K Srivastava
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: gshikhar8@gmail.com

Introduction: Brachytherapy is an essential component of definitive radiotherapy for carcinoma cervix, allowing delivery of a high dose to the primary tumour while limiting radiation exposure to surrounding organs at risk. Timely completion of brachytherapy is important for completing definitive treatment within an appropriate overall treatment time. In a high-volume tertiary cancer centre, differences in referral pathways may influence brachytherapy delivery and treatment completion.

Aims and Objectives: To conduct an institutional audit of brachytherapy practice in patients with carcinoma cervix treated during 2024, with emphasis on patient characteristics, treatment patterns, completion of prescribed brachytherapy and treatment intervals.

Materials and Methods: A retrospective audit was conducted using the Hospital-Based Cancer Registry and radiotherapy records of patients with carcinoma cervix who received high-dose-rate brachytherapy at King George's Medical University, Lucknow, between January and December 2024. Demographic, clinical, and treatment-related variables were recorded. Patients who completed external beam radiotherapy (EBRT) at our institution were routinely treated with 7 Gy × 3 fractions, while patients referred after receiving EBRT elsewhere were treated with 9 Gy × 2 fractions. Brachytherapy completion, treatment interruptions, treatment intervals, and available follow-up outcomes were assessed. Patients receiving EBRT at our institution and those referred after outside EBRT were evaluated separately to identify differences in treatment pathways and potential gaps in care.

Results: Results are awaited. The audit will report the demographic and disease profile, distribution of patients according to referral pathway, brachytherapy completion rates, treatment intervals, and available disease-control and toxicity outcomes. Differences in treatment completion and delays between the two referral groups will also be assessed.

Conclusion: This institutional audit will provide a real-world assessment of cervical cancer brachytherapy practice at a tertiary referral centre. Identification of delays, incomplete treatment and differences in referral pathways may help recognise potentially modifiable gaps and facilitate measures to improve timely completion of definitive cervical cancer treatment.

ABS-015

Dose-Volume Predictors of Radiation-Induced Oral Mucositis in Head and Neck Cancer: Defining Clinically Relevant Constraints for Oral Mucosal Organs at Risk

Alan Samuel John*, S Sanyal, A Mukherji, SS Nanda, A Choubey, NH Patil, AS Krishnan, V Mishra
Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) & Homi Bhabha Cancer Hospital (HBCH), Varanasi (Units of Tata Memorial Hospital, Mumbai)
*Junior Resident, Email: alan_john010@outlook.com

Introduction: Radiation-induced oral mucositis (RIOM) is a common treatment-limiting toxicity of head and neck radiotherapy. Dose-volume analysis of composite oral mucosal organs at risk (OMRs) may enable toxicity-aware treatment planning.

Aims & Objectives: To evaluate OMR dose-volume histogram (DVH) parameters as predictors of Grade ≥2 and Grade ≥3 RIOM, and to define clinically applicable dose constraints.

Materials & Methods: In this retrospective study, 348 head and neck cancer patients treated with radical radiotherapy ± concurrent chemotherapy were analyzed. Composite OMRs (lips, bilateral buccal mucosa, tongue, soft palate) were contoured, and mean/median dose along with V_5-V_{70}Gy (relative % and absolute cc) were extracted. ROC analysis with Youden-index cutoffs, univariable and multivariable logistic regression (adjusted for age and chemotherapy), Kaplan-Meier/Cox analysis, and DeLong testing were performed.

Results: Grade ≥2 and Grade ≥3 RIOM occurred in 89.4% and 20.4% of patients. Intermediate-to-high dose parameters showed the best discrimination, peaking at $V_{40\text{-}V55Gy}$ (AUC 0.770-0.786 for Grade ≥2; 0.674-0.688 for Grade ≥3). V_{45Gy} and V_{50Gy} (% and cc) were individually analysed and remained predictors on multivariable analysis (all $p<0.001$), with no significant difference between parameters on DeLong testing. Patients exceeding thresholds developed mucositis earlier (Grade ≥2: median 3 vs 4 weeks; HR 2.27-2.94, $p<0.001$). Balanced constraints were V_{50Gy} ≤50% (sensitivity 72.8%, specificity 70.2%) for Grade ≥2, and V_{50Gy} ≤93.8cc (sensitivity 73.2%, specificity 60.0%) for Grade ≥3.

Conclusion: OMR V_{45Gy} and V_{50Gy} are robust, independent predictors of clinically significant RIOM. Maintaining OMR V_{50Gy} ≤50% (or ≤93.8cc for Grade ≥3) offers pragmatic dose constraints to reduce severe mucositis and delay symptom onset, pending prospective validation.

ABS-016

Rare Constellation of Multiple Primary Malignancies: Synchronous Astrocytoma, Spinal Liposarcoma, Breast Carcinoma with Metachronous Contralateral Breast Carcinoma: Management Insights

Shally Batham[1*], S Shalini[1], C Mundra[1], AK Yadav[1], KK Das[2], A Mishra [3], A Singh [4], M Ora [5], K Mandal[6], Department of Radiotherapy[1], Neurosurgery[2], Endocrine Surgery[3], Pathology[4], Nuclear Medicine[5], Medical Genetics[6],
Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Senior Resident, Email: sbatham2013@gmail.com

Background: Multiple primary malignancies (MPMs) are uncommon, with reported incidence ranging from 2–17% of cancer patients. The occurrence of three or more distinct primaries is exceptionally rare, estimated at <1–2% in large series. We present a unique case of synchronous astrocytoma, spinal liposarcoma, and right breast carcinoma subsequently complicated by a metachronous contralateral breast carcinoma. This constellation spanning distinct organ systems highlights both its exceptional rarity and the inherent challenges in management.

Case Presentation: A 25-year-old female presented with radicular low back pain, left foot weakness, bowel and bladder dysfunction, and focal seizures with secondary generalization. Imaging and surgical resection revealed synchronous astrocytoma (grade2) and L5–S1 spinal liposarcoma. Concurrent evaluation of a right breast mass confirmed infiltrating ductal carcinoma (ER-/PR-/HER2+). Management included brain radiotherapy, neoadjuvant chemotherapy, right mastectomy, and adjuvant radiotherapy to the breast and spine. Three years later, surveillance identified a metachronous left breast invasive carcinoma (ER+/PR+/HER2-) with cervical, axillary, and mediastinal lymph node metastases, along with pulmonary deposits. She remains under multi-agent therapy coordinated by a multidisciplinary oncology team.

Challenges in Management: This case highlights several complexities: (a) diagnostic difficulty in distinguishing synchronous primaries from metastases, requiring extensive imaging, histopathology, and molecular profiling; (b) therapeutic dilemmas in sequencing multimodal treatment across distinct malignancies; (c) overlapping toxicities, including neurocognitive, hematologic, and cardiopulmonary risks; (d) the burden of lifelong surveillance given recurrence risk; (e) genetic uncertainty complicating risk stratification and family counselling; and (f) psychosocial challenges in a young patient facing prolonged therapy.

Conclusion: The synchronous presentation of brain, spinal, and breast malignancies followed by a metachronous contralateral breast carcinoma represents an extraordinarily rare clinical scenario. This case emphasizes the necessity of comprehensive genetic profiling, individualized multimodal strategies, and coordinated multidisciplinary care to address the diagnostic, therapeutic, and psychosocial challenges inherent in such rare cancer phenotypes.

ABS-017

Neoadjuvant Chemotherapy Followed by Concurrent Chemoradiotherapy in Carcinoma Cervix: A Feasibility Study

Deepshikha Narain*
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: deepshikhanarain12@gmail.com

Introduction: Carcinoma cervix is the second most common cancer in India. The current standard of care is chemoradiotherapy followed by brachytherapy, which provides an average OS of 60-70% over 5 years. Many trials have been conducted to improve the PFS and OS. One such trial is the INTERLACE, which suggests the use of short-course induction chemotherapy followed by standard chemoradiotherapy and brachytherapy. This helps reduce tumour volume and micrometastases.

Aim: To study the effects of adding short-course induction chemotherapy followed by standard chemoradiotherapy in our setting.

Objectives: To evaluate the acute toxicities post-chemoradiotherapy. To evaluate the loco-regional control.

Materials and Methods: Patients were taken in this prospective, interventional, single-arm pilot study after satisfying the inclusion and exclusion criteria with informed consent. Patients received short-course induction NACT of once-a-week intravenous carboplatin AUC 2 and paclitaxel 80mg/m2 for 6 weeks, which was followed by 45–50·4 Gy EBRT delivered in 25–28 fractions with weekly concurrent cisplatin 40mg/m^2 and then by brachytherapy. After treatment completion, the patients were kept on follow-up, during which data regarding clinical response and locoregional control was recorded.

Results: This is an interim analysis. The study is ongoing, and final results are awaited. Till date, 25 patients have been enrolled in the protocol against 30. Baseline characteristics: median age at diagnosis 54years; all squamous histology; FIGO stage IIIC1 (50%), IIB (30%); NACT compliance 81% with delay in 19%; dose reduction in 25%; Grade 3-4 hematological toxicity during NACT in 6%; response after completion of CCRT and brachytherapy was 91%complete compared to 9% partial, and locoregional control at last follow-up (median 1 month) was 100%.

Conclusion: The provisional conclusion drawn shows that NACT has a good response in our setting. This regimen is practicable with an acceptable level of toxicities and is therefore satisfactory in achieving loco-regional control.

ABS-018

Comparison of Outcome of Quad Shot Regimen versus Octa Shot in Locally Advanced Head and Neck Cancer Patients

Mohd Rashid*, Rajendra Kumar, Sristhi Puraiya
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: mhdrashid64@gmail.com

Introduction: Head and Neck cancer accounts for 14.3% of all cancers in India, and globally it is 4.8%. In India, most common site is Lip and Oral cavity (>80%), more common in men than in women. Histologically, mostly are squamous cell carcinoma. Majority of patients present with locally advanced stage, where surgery and definitive chemoradiation therapy is not possible, and palliative radiotherapy is considered as treatment option for better survival of patients.

Aim: Comparative evaluation of efficacy, symptom relief, and toxicity profile of octa shot versus quad shot palliative radiotherapy in patients with advanced head and neck cancer.

Objective: To evaluate the clinical response and improvement in quality of life. To compare acute and late radiation toxicities. To evaluate symptom control, treatment compliance, and overtolerance between the two regimens.

Materials and Methods: Biopsy-proven locally advanced malignant carcinoma head and neck patients recruited, with sample size of 50 each in study and control arm. In Control arm, patients receive 14GY IN 4# BD dose 6-8hours apart for 2 consecutive days for 3 cycles. In study arm, patients receive 28GY IN 8# BD dose 6-8hours apart for 4 consecutive days.

Results: Study group and control group each have 45 patients recruited, and study arm has more mucosal reaction and skin reaction than control arm. Treatment response and Quality of Life in both arms are almost same. GRADE 1 MUCOSAL REACTION in 38 patients and GRADE 2 in 7 patients in study arm versus GRADE 1 MUCOSAL REACTION in 27 patients and GRADE 2 in 18 patients in control arm. GRADE 1 SKIN REACTION in 38 patients and GRADE 2 in 7 patients in Study arm versus GRADE 1 SKIN REACTION IN 29 patients and GRADE 2 in 16 patients in Control arm.

Conclusions: In view of total patients recruited, study group with less treatment time has better benefit in terms of faster symptom relief and comparable Quality of life as conventional palliative regimen.

ABS-019

Mucinous Adenocarcinoma Arising from Chronic Anal Fistula: A Rare Case with Residual Disease after Multimodality Therapy

Himanshi Khator*
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: himanshikhator23@gmail.com

Introduction: Mucinous adenocarcinoma arising from a chronic anal fistula is an exceptionally rare malignancy. Its nonspecific presentation may mimic benign fistulous disease, resulting in delayed diagnosis. Despite its relatively indolent course, it demonstrates locally aggressive behaviour and poses significant diagnostic and therapeutic challenges.

Aims & Objectives: To highlight the diagnostic challenge of fistula-associated mucinous adenocarcinoma and describe its clinical course and multimodality management, including modern IMRT.

Materials and Methods: A 49-year-old male presented with a 3-year history of per-rectal discharge followed by blood-tinged discharge for 6 months. He underwent fistulotomy at a local hospital in July 2025; histopathology revealed adenocarcinoma with mucinous differentiation. Repeat biopsy in August 2025 confirmed the diagnosis. Contrast-enhanced MRI pelvis demonstrated a 4.5-cm left perineal/ischioanal lesion infiltrating the internal and external anal sphincters with extension to the posterior anal canal. The patient received six cycles of leucovorin and 5-FU-based chemotherapy, followed by radical-dose chemoradiotherapy. IMRT using nine coplanar 6-MV beams with a simultaneous integrated boost delivered 60 Gy to gross disease and 46 Gy to primary tumor with pelvic and inguinal nodal volumes in 30 fractions over 6 weeks, with concurrent capecitabine 850 mg/m² twice daily.

Results: Four weeks after radiotherapy, contrast-enhanced MRI demonstrated residual ill-defined disease in the left ischioanal region, with infiltration of the left gluteal muscle and extension to the posterior anal canal. The patient was subsequently evaluated for surgical intervention.

Conclusion: Persistent or changing symptoms in patients with chronic anal fistula warrant a high index of suspicion for malignant transformation. Histopathological confirmation is crucial for diagnosis. In view of the rarity of fistula-associated mucinous adenocarcinoma and absence of standardized treatment, multimodality therapy incorporating chemotherapy, chemoradiotherapy and surgical management remains an important treatment strategy. Careful post-treatment imaging is essential to identify residual disease and guide definitive local management.

ABS-020

A Case Report on The Use of Freehand Interstitial Needles with Tandem and Ovoid for A Case of Locally Advanced Cervical Cancer with Residual Post-External Beam Radiotherapy

Adnan Akhter*, Seema Gupta , Kirti Srivastava , Kopal Jaiswal, Aditi Mishra , Nida Shafique
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: adnan.akhter80@gmail.com

Introduction: Brachytherapy treatment has transitioned from traditional point A-based dose prescription to adaptive image-guided 3-dimensional (3-D) target volume-based brachytherapy (IGABT). This has not only improved the local control and survival of patients, but also decreased the toxicity. The adoption of IGABT and hybrid applicators has unfortunately widened the treatment gaps for cervical cancer. Commercially available hybrid applicators require expensive additional equipment and specialized user expertise, which greatly limits their use.

Case Presentation: A 64-year-old female complaint of bleeding per vagina since last 6 months. She got evaluated at the Department of Obstetrics and Gynaecology and underwent a biopsy. MRI pelvis: Cervix lesion (approx. 5.2 x 5.3 x 3.6 cm; APxTRxCC). Mild parametrial fat stranding was noted. Radiation therapy was delivered by IMRT (Intensity Modulated Radiotherapy) technique as 50Gy/25 Fractions with SIB to the involved nodes 55Gy/25 Post EBRT MRI pelvis: 2.3 x 3 x 1.3 cm with left parametrial invasion at 2- 5 o'clock. Brachytherapy technique: IC+IS (Intracavitary and Interstitial). Applicators used were tandem and ovoids. Additional interstitial needles were inserted vaginally under Ultrasound guidance. Templates to stabilize the needles outside the vagina was rubber erasers. The dosimetry goal was to deliver >7 Gy/# to HR-CTVD_{90}, keeping OARs as low as possible. 7Gy x 3 fraction was delivered. 34.8Gy to HR-CTV D_{90} bringing total $EQD2_{10}$HR-CTVD_{90} 84.8Gy.

Results: MRI performed 3 months post brachytherapy: cervix appears heterogeneous in signal intensity; however, no mass noted.

Conclusion: Commercial hybrid applicators (Vienna, Utrecht, Venezia) are expensive, require specialized training, additional equipment, and advanced imaging integration. In India, brachytherapy infrastructure is limited; these systems are inaccessible. **Our innovative solution: s**tandard tandem-and-ovoid applicators with Freehand interstitial needles under ultrasound guidance, with Rubber erasers as external needle stabilizers, a cost-effective, easily available template.

ABS-021

Rare Pancreatic Metastasis from Recurrent Malignant Phyllodes Tumor of the Breast: A Case Report

Rupali Jain*, S Sanyal, P Mishra, P Giridhar, L Pujari, S A Krishnan, A Mukherji.
Department of Radiation Oncology, Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) & Homi Bhabha Cancer Hospital (HBCH), Homi Bhabha National Institute, Mumbai
*Junior Resident, Email: jain3riya@gmail.com

Introduction: Phyllodes tumors (PT) are rare fibroepithelial breast neoplasms (<1% of breast malignancies). Malignant PT carries a 10–20% risk of hematogenous dissemination, typically targeting lungs and bones. Secondary pancreatic metastasis is exceptionally rare and mimics primary pancreatic ductal adenocarcinoma.

Aims & Objectives: To report a rare case of metastatic malignant phyllodes tumor involving the pancreatic body and evaluate its clinical presentation, diagnostic challenges, and palliative radiation management.

Materials & Methods: Clinical data, imaging, pathology, immunohistochemistry (IHC), and clinical treatment records of a 36-year-old female managed at a tertiary cancer center were systematically analyzed.

Results: A 36-year-old female presented with a recurrent right breast mass following a prior outside lumpectomy. She underwent a right radical mastectomy on August 11, 2025. Histopathology confirmed malignant PT ($18 \times 10 \times 4$ cm) featuring marked stromal cellularity, severe atypia, extensive stromal overgrowth, high mitoses ($24/10$ HPF), and negative resection margins (AJCC rpT4N0M0). Following lower flap revision, she completed adjuvant chest wall 3DCRT (50 Gy/25 fractions) in November 2025. In March 2026, she developed severe epigastric pain radiating to the back. Abdominal CECT (April 2026) revealed a $13 \times 6.9 \times 6.2$ cm pancreatic body mass encasing the celiac axis ($> 180°$) and SMA ($< 180°$), with main pancreatic duct dilation, SMV thrombotic occlusion, and portal cavernoma formation. CT-guided core biopsy showed atypical spindle cells with brisk mitoses (7-8/10 HPF). IHC was negative for AE1/AE3, CD34, CKIT, and DOG1, confirming metastatic malignant PT and ruling out adenocarcinoma, GIST, or primary vascular sarcomas. Given inoperable disease and ECOG PS 3, she received short-course palliative RT (20 Gy/5 fractions) and supportive analgesia. She achieved symptom relief but succumbed to rapid disease progression shortly post-RT.

Conclusion: Pancreatic metastasis from malignant PT carries a dismal prognosis. High mitotic index and stromal overgrowth drive systemic spread. Targeted IHC on core biopsy is essential to exclude primary pancreatic carcinoma and guide timely palliative care.

ABS-022

From Histology to Molecular Risk: A Three-Year Real-World Audit of the Changing Paradigm in Endometrial Cancer Management at a Tertiary Care Centre

D.S. Darshayita*, Kirti Srivastava, Nisha Singh, Adnan Akhter
Department of Radiotherapy, King George Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: darshayitasumandev@gmail.com

Introduction: Molecular classification has transformed endometrial cancer from a predominantly clinicopathological disease model to biologically defined risk groups with implications for prognostication and adjuvant therapy. Real-world adoption of this paradigm, particularly in resource-constrained settings, remains incompletely characterized.

Aims & Objectives: To evaluate temporal changes in clinicopathological assessment, molecular profiling, and adjuvant treatment patterns among patients with endometrial carcinoma managed at a tertiary-care centre.

Materials & Methods: A retrospective clinical audit of endometrial carcinoma records from 2023–2025 was performed. Clinicopathological characteristics, nodal assessment, MMR and p53 testing, POLE testing, and adjuvant treatment were extracted. Non-epithelial and clearly non-endometrial primaries were excluded. Molecular-testing uptake was compared across calendar years.

Results: Forty-three evaluable carcinoma cases were identified (2023: n=15; 2024: n=12; 2025: n=16). Endometrioid carcinoma remained the predominant histology. MMR assessment increased from 20.0% in 2023 to 25.0% in 2024 and 50.0% in 2025, representing a >2-fold increase over three years. p53 documentation was present in 46.7%, 33.3% and 62.5%, respectively. Despite increasing incorporation of molecular biomarkers, no documented POLE testing was identified across the entire cohort. Consequently, complete contemporary molecular classification remained unattainable in most patients. Adjuvant management remained predominantly clinicopathology-driven, with EBRT and/or vaginal brachytherapy frequently employed.

Conclusion: This three-year audit demonstrates a measurable transition toward molecularly informed endometrial cancer care, particularly through increasing MMR and p53 assessment, but reveals a persistent implementation gap preventing complete molecular risk stratification. Bridging this gap, especially access to POLE testing and standardized molecular reporting, represents an actionable opportunity to advance precision-guided adjuvant therapy in routine practice.

ABS-023

SBRT in Hepatocellular Carcinoma with and Without Portal Vein Tumor Thrombosis: A Dose-Stratified Institutional Experience

Muskan Gupta*, R Agrawal, M Pandey, S Agarwal, P Chauhan, A Malik
Department Of Radiation Oncology, Max Super Speciality Hospital, Vaishali, Ghaziabad, Uttar Pradesh
*Junior Resident, Email: drmuskan97@gmail.com

Introduction: Hepatocellular carcinoma (HCC) often presents with advanced disease, particularly in the presence of portal vein tumor thrombosis (PVTT), which limits curative options and worsens prognosis. Stereotactic body radiotherapy (SBRT) provides a non-invasive, high-dose local treatment option for selected patients unsuitable for surgery, transplantation, or other locoregional therapies [1]. Patients with unresectable, transplant-ineligible, or refractory HCC were considered for SBRT or palliative radiotherapy.

Aims & Objectives: To evaluate the effectiveness of SBRT in HCC with or without PVTT, stratified by disease category and biologically effective dose (BED10), using modified RECIST (mRECIST) and Common Terminology Criteria for Adverse Events (CTCAE) grading.

Materials & Methods: Twenty patients (17 males, 3 females; median age, 62 years; range, 22–79) treated with SBRT between 2021 and 2026 were retrospectively evaluated at 6-month follow-up. Ten patients (50%) each had Child-Pugh A and B status (Table 1); five patients (25%) had prior liver-directed therapy. Patients were grouped by treated target as HCC alone (n=9), combined HCC+PVTT (n=7), and isolated PVTT-directed SBRT (n=4). Doses ranged from 15–50 Gray (Gy) in 5–10 fractions (BED10 19.5–100 Gy), individualized per lesion volume, liver function, and organ-at-risk constraints.

Results: At the fixed 6-month cutoff, 4 patients (20%) were lost to follow-up; among the 16 evaluable patients, disease control (stable/good response or bridge to transplantation) was seen in 11 (69%): 6/8 (75%) HCC alone, 4/5 (80%) combined HCC+PVTT, and 1/3 (33%) isolated PVTT-directed. Disease control was higher at BED10 ≥75 Gy (100%, 4/4) than at BED10 <50 Gy (50%, 2/4) [2]. Five patients (25%) had unfavourable outcomes (2 progressions, 3 deaths), related to disease progression rather than treatment-related. No CTCAE Grade ≥3 toxicity was documented.

Conclusion: This institutional experience confirms SBRT as an effective, safe treatment for unresectable, ablation-refractory HCC with or without PVTT, with disease control favouring higher BED10 and no treatment-related mortality, reinforcing its emerging primary-treatment role.

ABS-024

Evaluating clinical Safety of Cobalt-60 HDR Intracavitary brachytherapy in Cervical Cancer: Acute and Late Toxicity analysis

Asmita Ranjan*, Aditi Mishra, Adnan Akhtar, Kirti Srivastava
Department of Radiotherapy, King George Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: asmitaranjan21@gmail.com

Introduction: Definitive chemoradiation followed by high-dose-rate (HDR) brachytherapy is the standard treatment for locally advanced cervical cancer. Although Iridium-192 is widely used as HDR source, Cobalt-60 offers logistical and economic advantages due to its longer half-life and reduced source replacement requirements. However, limited data on its long-term safety continue to influence source selection.

Aims & Objectives: To evaluate oncological outcomes and treatment-related toxicities associated with Cobalt-60 HDR intracavitary brachytherapy in cervical cancer

Methods: This single-institution retrospective cohort study included 360 patients with histologically confirmed cervical cancer treated with definitive chemoradiation followed by Cobalt-60 HDR intracavitary brachytherapy (ICRT) between 2022 and 2024. EBRT was predominantly delivered to 50Gy/25 fractions using cobalt or linear accelerator-based techniques, followed by CT-guided HDR ICRT, wherein most received 6-7Gy per fraction for 3- 4 fractions. Treatment parameters were retrieved from institutional records. Toxicities were graded using RTOG criteria and analysed in relation to HRCTV D90, Organs-at-risk D2cc doses, cumulative-EQD2, and overall treatment time.

Results: Among 360 patients, 80.8% had FIGO IIB-IIIC disease, and 93.6% had squamous cell histology. Acute toxicities were predominantly low grade, with Grade 2 gastrointestinal, genitourinary, hematological, and skin toxicities occurring in 16.9%, 0.8%, 8.9%, and 1.9%, respectively. Grade ≥3 gastrointestinal and hematological toxicity occurred in 0.8% & 2.8%, with no Grade ≥3 genitourinary or skin toxicity. Radiation proctitis and cystitis was predominantly Grade 0-1 and ≥3 Grade in 7.2% and 2.0%, respectively. Vaginal stenosis was reported in 23.3%; rectovaginal fistula (1.9%) and vesicovaginal fistula (0.3%) were uncommon. Complete response achieved in 93.6%, clinical disease-free status in 95.3%, and local control of 82.1% at last follow-up.

Conclusion: Cobalt-60-HDR intracavitary brachytherapy demonstrated satisfactory oncological outcomes and low severe toxicities, supporting its use as a safe, economical, and effective brachytherapy source in resource-limited settings.

ABS-025

Redefining Precision: Technology-Driven, Patient-Centric Radiotherapy for Optic Sarcoma

Neharita Jasuja*, Debashish Tripathi, Bharat Dua, Amita Prakash, Karishma Agarwal, Soumya Subhadarsini, Anshika Gupta
Department of Radiation Oncology, Indraprastha Apollo Hospital, New Delhi
*Senior Resident, Email: neharitajasuja@gmail.com

Background: Optic sarcomas are rare malignancies whose proximity to the globe, optic nerve and other critical neuro-ocular structures makes management difficult. Treatment must balance adequate tumour control against treatment-related morbidity. This case illustrates how technology-enabled precision radiotherapy supports individualised, patient-centred cancer care in an anatomically complex site.

Case Presentation: A patient with a right-sided optic sarcoma underwent comprehensive clinical and radiological assessment, followed by multidisciplinary treatment planning. Because the tumour lay close to critical visual and neurological structures, target volumes and organs at risk were delineated meticulously. An individualised intensity-modulated radiotherapy (IMRT) plan was designed to achieve a highly conformal dose distribution while limiting unnecessary irradiation of adjacent normal tissues. Customised immobilisation, image-guided delivery and optimised dose gradients were used to enhance precision, reproducibility and safety.

Technology-Driven Precision: The complex anatomy of the orbit and optic pathway limits the ability of conventional radiation techniques to cover the target optimally while sparing neighbouring critical structures. Combining advanced imaging, three-dimensional planning, image guidance and IMRT allowed differential dose optimisation between the target and organs at risk. This reflects a shift from conventional field-based radiotherapy to a patient-specific, anatomy-driven strategy centred on robust tumour coverage, normal-tissue sparing and functional preservation.

Patient-Centric Oncology: Precision in this case extended beyond dosimetric accuracy. Decisions were tailored to the patient's disease characteristics, functional priorities, anticipated toxicities and potential effects on quality of life. The aim was not only local tumour control but also preservation of function and minimal disruption to daily living, illustrating a practical model of patient-centred oncology.

Conclusion: This case demonstrates the convergence of technology, precision and patient-centred care in managing a rare, anatomically challenging malignancy. Advanced radiotherapy can enable highly individualised treatment by optimising target coverage while reducing dose to critical normal structures. The value of technological sophistication lies in its intelligent application: delivering the right treatment to the right patient while preserving function and what matters most to the individual.

ABS-026

Transforming Cancer Care with Technology Integration, Precision, and Patient-Centric Oncology Concept Validation, Challenges, and the Way Forward

Neharita Jasuja*, G.K. Jadhav, Sapna Manocha, Debashish Tripathi, Bharat Dua, Amita Prakash, Karishma Agarwal

Department of Radiation Oncology, Indraprastha Apollo Hospital, New Delhi

*Senior Resident, Email: neharitajasuja@gmail.com

Background: The global cancer burden is rising sharply. In 2022 there were 20 million new cases and 9.7 million deaths, and incidence is projected to reach 35 million cases by 2050, a 77% increase, with the steepest relative rises expected in Asia and Africa. Meeting this challenge requires more than incremental improvements in care delivery.

Objective: This concept paper synthesises current evidence and practice trends across four converging domains: artificial intelligence (AI) and multimodal data integration, precision oncology through liquid biopsy and circulating tumour DNA (ctDNA), patient-centric models of care, and real-world evidence for advanced therapies. It also outlines the implementation challenges and strategic priorities for translating these innovations into sustainable clinical impact.

Methods: A narrative synthesis of published literature and real-world evidence was undertaken, structured around technology integration, precision diagnostics, patient-centred care delivery and advanced therapeutics. A thematic assessment of implementation barriers and enabling strategies followed.

Results/Discussion: AI-enabled clinical decision support and multimodal data platforms show concordance with oncologists' treatment choices in over 90% of real clinical queries, supporting diagnostic accuracy and workflow efficiency. Liquid biopsy and ctDNA are moving from research into routine practice, enabling earlier detection, molecular profiling, minimal residual disease monitoring and resistance detection, with market growth projected at a double-digit annual rate through 2030 and beyond. In randomised trials, electronic patient-reported outcomes (ePRO) and remote symptom monitoring improve survival and quality of life while reducing unplanned hospitalisations. Real-world registries, exemplified by CAR-T cell therapy, are expanding indications and complementing trial data to define long-term effectiveness, safety and access.

Implementation Challenges: Four recurring barriers emerged: high upfront costs and uncertain reimbursement models; heterogeneous data sources and poor interoperability; inequitable access across regions and health systems; and workforce and infrastructure gaps that demand training and scalable implementation.

Conclusion: Technology integration, precision diagnostics and patient-centric care are converging to deliver measurable clinical benefit. Success, however, depends on strengthening digital and diagnostic infrastructure, ensuring equitable access, generating real-world evidence, enabling multi-stakeholder collaboration and keeping patient priorities central. A sustainable future in oncology will be more precise, more inclusive and more human.

ABS-027

Precision Radiotherapy for SIOP High-Risk Blastemal type Wilms Tumor with Lung Metastases in a one-year-seven-months-Year-Old Child: A Rare Case Report

Manvi Pankaj*, Pradeep Kumar KN
HCG Cancer Hospital, Bangalore
*DNB Resident, Email: keepitupmanvi@gmail.com

Introduction: Metastatic Wilms tumour with high-risk blastemal histology is a therapeutically challenging subgroup. Radiotherapy in very young children presents unique hurdles because of limited cooperation, movement, need for repeated anaesthesia and the vulnerability of normal tissues.

Aim and Objectives: To describe the multidisciplinary management of a one-year-seven-months-old child with Stage IV Wilms tumour, with particular emphasis on radiotherapy planning, customised immobilisation, anaesthesia-assisted treatment to facilitate safe and reproducible treatment delivery.

Materials and Methods: A one-year-seven-months-old girl presented with progressive abdominal distension of approximately two months' duration. Imaging revealed a large left renal mass measuring 10.6 × 7.8 × 8.7 cm with regional lymphadenopathy with bilateral lung nodules. After Multidisciplinary discussion, according to SIOP-RTSG UMBRELLA 2016 protocol she was planned for NACT with six cycles of vincristine, doxorubicin and dactinomycin, followed by laparotomy and left radical nephrectomy. Post- operative histopathology demonstrated a 5.5 × 4.2 × 3.2 cm unifocal residual blastemal- predominant Wilms tumour with negative hilar/para-aortic nodes and negative margins, with 35% necrosis and involvement of extra-renal vasculature., In view of metastatic high-risk disease she was planned for Adjuvant Radiotherapy to post-op bed and later for whole lung
irradiation. High risk consent was taken and prognosis was explained to her parents. CT simulation was performed using an inverted head mask with sedation. Treatment was delivered under sedation using IGRT with 10.8 Gy in six fractions of 1.8 Gy, delivered on alternate days.

Results: The prescribed radiotherapy course was successfully delivered. Diarrhea and fever were the acute treatment-related complications that were managed symptomatically.

Conclusion: This case demonstrates the feasibility of an individually tailored approach for postoperative radiotherapy in a very young child. The same can be given using a half vacloc immobilisation, oral sedatives and alternate day treatment for better compliance.

ABS-028

Lattice Radiotherapy for Bulky and Anatomically Challenging Rare Malignancies: An Institutional Case Series and Literature Review

Manvi Pankaj*, Pradeep Kumar KN, Kirthi Koushik, Lohit G, Krithika S, Anirudh S
HCG Cancer Hospital, Bangalore,
*DNB Resident, Email: keepitupmanvi@gmail.com

Introduction: Lattice Radiotherapy (LRT) is an emerging form of spatially fractionated radiotherapy that enables selective intratumoral dose escalation through high- dose vertices within a lower-dose background. This approach may exploit spatial dose effects, tumour hypoxia modulation, bystander signalling and immunogenic cell death while limiting exposure to surrounding organs at risk. We report our institutional experience of LRT in five patients with rare, bulky and anatomically challenging tumours.

Aim and Objectives: To evaluate the feasibility, dosimetric characteristics, acute toxicity and preliminary clinical outcomes of LRT across diverse rare malignancies and to contextualise our experience within the current literature.

Materials and Methods: This retrospective case series included five patients treated with LRT at a tertiary cancer centre between January 2025 and August 2026. Clinical characteristics, prior treatment, indication for LRT, treatment planning parameters, dosimetry, treatment delivery, toxicity, radiological response and clinical outcomes were reviewed. After Multidisciplinary discussion with patient's consent and after explaining prognosis, they were taken for treatment. Histologies included Recurrent extraosseous Ewing sarcoma of Extremity, Metastatic synovial sarcoma lesion in neck, Axillary soft-tissue sarcoma, Metastatic SCC of Thymus, and undifferentiated carcinoma presenting as a gallbladder lesion with unknown primary. They were prescribed 6 Gy to vertices and 3 Gy to valley per fraction, once a week according to tolerability in Cyberknife, Ethos, Tomotherapy and Halcyon, showing the versatility of the technique.

Results: Four patients successfully completed LRT with satisfactory target coverage while respecting relevant OAR constraints, whereas one received only 2 fractions as he succumbed after that. Treatment was well tolerated with acceptable acute toxicity. Early clinical assessment demonstrated encouraging radiological response and symptomatic benefit across diverse histologies.

Conclusion: LRT is a technically feasible and promising treatment approach for selected patients across diverse histologies with bulky, anatomically challenging and rare malignancies. Further prospective multicentre studies with longer follow-up are required to establish optimal patient selection, dose-fractionation strategies and clinical efficacy.

ABS-029

Beyond the Nodes: Diagnostic Traps and Radiation Dilemmas in Extranodal Non-Hodgkin Lymphoma

Sunav Basu Biswas*, I Jaiswal, P Sen, L Kharbuli, YM Krishna

Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
*Resident, Email: meghbaba@gmail.com

Introduction: Primary extranodal non-Hodgkin lymphomas (pENHL) account for 25%–40% of adult lymphomas but rarely present in the colon, thyroid gland, and extremity soft tissues. Atypical presentations frequently masquerade as carcinomas or sarcomas, creating diagnostic dilemmas that lead to critical delays in definitive management.

Aims and Objectives: To evaluate diagnostic traps, treatment delays, molecular risk markers, and site-specific radiation therapy paradigms across three uncommon primary extranodal presentations in adults.

Materials and Methods: We conducted a retrospective clinical, histopathological, and radiological analysis of three adult patients with pENHL involving the sigmoid colon, thyroid gland, and extremities. We evaluated clinical trajectories, immunohistochemical (IHC) profiles, surgical interventions, systemic regimens, and radiation delivery techniques.

Results:

Case 1: A 24-year-old male with an 11.2 × 13.1 cm abdominal mass underwent laparotomy and excision. IHC confirmed GCB high-grade B-cell NHL. After 6 cycles of R-CHOP and consolidative Involved Site Radiotherapy (ISRT) (36 Gy/20#), the patient achieved complete metabolic remission.

Case 2: A 57-year-old female with anterior neck swelling and stridor was diagnosed with high-grade Double-Expressor B-cell lymphoma. Persistent chemo-refractory disease after R-CHOP led to thyroidectomy for airway decompression, but immediate relapse required salvage chemoimmunotherapy without RT.

Case 3: A 50-year-old female had a 9.6 cm thigh mass misdiagnosed as sarcoma, excised without planning. Scar recurrence in 4 weeks led to IHC diagnosis of DLBCL. Residual disease after chemo was treated with RT (45 Gy/25#) plus Vincristine, and she remains disease-free at over 3.5 years.

Conclusion: Atypical pENHL often leads to diagnostic confusion, resulting in unnecessary surgery and delayed chemoimmunotherapy. Early core biopsy with a broad IHC panel is essential to avoid these pitfalls. ISRT (30–36 Gy) is effective for responsive disease, while chemo-refractory cases may need higher doses (45 Gy).

ABS-030

Predicting Chemoradiotherapy Response in Head and Neck Squamous Cell Carcinoma (HNSCC) Using Inflammatory Markers

Utkarsh Rai*, Samani, T.
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Resident, Email: utkarsh2699@gmail.com

Introduction: Head and neck squamous cell carcinoma (HNSCC) constitute more than 90% of head and neck malignancies and carries substantial morbidity and mortality worldwide. Systemic inflammatory markers, including neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and serum CRP-to-albumin ratio (CAR), are inexpensive and readily accessible biomarkers that may provide prognostic information.

Objective: To compare the prognostic significance of pretreatment NLR, PLR, and CAR in predicting treatment response in HNSCC patients undergoing chemoradiotherapy.

Methods: A total of 100 patients with histopathologically confirmed HNSCC treated between 2024 and 2025 were enrolled in the study. Treatment response was assessed using RECIST 1.1 criteria, based on which patients were categorized as complete responders (CR) or non-complete responders (N-CR). Receiver operating characteristic (ROC) analysis was then performed to determine the optimal threshold values for NLR, PLR, and CAR, and patients were subsequently stratified according to these cut-off values for further statistical evaluation.

Results: Among the three biomarkers, pretreatment CAR showed the strongest association with treatment response, with a cut-off of 1.68 (p=0.02). Higher CAR values were associated with an increased likelihood of non-complete response. NLR (cut-off 1.96; p=0.47) and PLR (cut-off 88; p=0.13) demonstrated comparatively weaker associations.

Conclusion: Pretreatment CAR demonstrated greater prognostic potential than NLR and PLR for predicting treatment response in HNSCC patients receiving chemoradiotherapy. CAR may represent a simple, inexpensive, and readily available biomarker for response prediction.

ABS-031

Multiple Cutaneous Histological Subtypes in a Single Locoregional Area: A Very Rare Case Presentation

Rishabh Bhardwaj*, S Gupta, Z Ashraf, P Raj, S Prajapati, M Yadav
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Junior Resident, Email: 189198128r@gmail.com

Introduction: Primary cutaneous adnexal adenocarcinoma NOS is a rare variety of cutaneous adnexal tumors with incidence as low as 0.7/million population, more common in elderly females. It poses a greater diagnostic and therapeutic difficulty due to an uncommon incidence. The appearance of a synergistic basal cell carcinoma subsequently at the post-treatment site impedes the therapeutic efficacy.

Aim: To describe and outline the clinical presentation and treatment strategy used to identify and manage a case of primary cutaneous adnexal adenocarcinoma with subsequent basal cell carcinoma at same site, as recurrence.

Objectives: To determine and highlight the clinical, diagnostic, and treatment challenges faced by the oncologist in identification and treatment of this very rare case presentation.

Materials and Methods (Case summary): 62-year-old female, presenting with complaints of pain over flap with neck movement restriction for two months post-surgery. Post-operative histopathology was reported as Adnexal Adenocarcinoma (NOS) with metastatic right cervical lymph nodes. Patient underwent IMRT-based CTRT, and after six months, a lesion at post-operative flap site was sent for histopathological evaluation, which was reported as Basal cell carcinoma. Another cutaneous nodule appeared under right submandibular area reported as basaloid carcinoma.

Result: Primary adnexal neoplasm of post-auricular area on histopathology, after receiving treatment with concurrent chemoradiotherapy, six months later developed lesion at same site, reported as basal cell carcinoma, raised the possibility of an unusually rare disseminated cutaneous malignancy. Patient is currently undergoing treatment with electron beam therapy.

Conclusion: The rarity of such cases requires active reporting to understand tumor behavior and its etiopathogenesis so that guidelines can be set for better management.

ABS-032

Small Round Cell Sarcoma of Chest Wall in a Paediatric Patient: A Diagnostic and Therapeutic Challenge

Prateek Raj*, S Gupta, Z Ashraf, R Bhardwaj, S Prajapati, M Yadav
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Junior Resident, Email: prateekraj888@gmail.com

Introduction: Small round cell sarcomas are a rare group of malignant tumors with incidence of ~1.5/million population and pose significant diagnostic and therapeutic challenges. Since its involving the chest wall therefore closeness to critical thoracic structure is of great concern for local control.

Aims and Objectives: To present a case of small round cell sarcoma and to describe the clinical presentation, response during radiotherapy via imaging findings during the treatment course.

Materials and Methods: 12 y/o female presented with complaints of recurrence of lump in p/o region, fever, and generalized weakness since 5 months. P/o CECT thorax suggestive of left anterolateral chest wall lesion (8.9×6.4×6.2 cm), and repeat histopathology was suggestive of small round cell sarcoma. She received 4 cycles of NACT (IE/VAC), then pt was taken on palliative RT initially (15Gy/10#) on Linac but after observing the response plan was shifted to definitive (58.9Gy/39#) with concurrent vincristine and cyclophosphamide (5 cycles).

Results: Baseline chest X-ray revealed a large left thoracic mass leading to mediastinal shift towards right side. Hence, multiple chest X-rays were done on different intervals during the course of radiotherapy, which revealed decrease in size of the lesion, which in turn indicated good response to radiotherapy that resulted in symptomatic relief in the patient. Follow-up imaging one month post-RT revealed marked progression (11×4.4×10 cm) with left lung collapse. She was subsequently referred for surgical evaluation.

Conclusion: This case basically emphasizes the need for early multidisciplinary evaluation including radiotherapy, chemotherapy, and surgical resectability in paediatric small round cell sarcomas with poor treatment response.

ABS-033

Neoadjuvant chemotherapy followed by radical chemoradiotherapy improves outcomes in locally advanced cervical cancer: Mature real-world data from a LMIC

Abhinav Srivastava*, Sushma Agrawal, Treshita Dey
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Senior Resident, Email: abhinavzdx@gmail.com

Introduction: Majority of cervical cancer present as locally advanced disease (LACC) in LMIC. The standard treatment for this is radical chemoradiotherapy (CTRT), which yields 5-year overall survival (OS) rate between 50%-60%. Advanced disease and long waiting list for initiation of radiotherapy necessitates few cycles neoadjuvant chemotherapy (NACT) prior to CTRT. We present our mature 10 -year results of NACT followed by CTRT.

Aims and objective-To see DFS, OS and late toxicity.

Materials and methods: Consecutive patients of de-novo stage 2 and 3 (2014-2023) were initiated on at least 2-3 cycles of NACT (carboplatin 5 AUC and paclitaxel 175mg/m2, 3 weekly). Thereafter, patients were treated with concurrent chemoradiation 50Gy/25fractions/5wks by 3D-CRT, followed by 3 fractions of brachytherapy (7 Gy prescribed to point A). After completion of treatment, patients were followed up in OPD 3 monthly for two years and thereafter 6 monthly. For the purpose of this analysis, patients were also contacted telephonically to know their updated status.

Results: Out of 137 patients (median age 55 yrs,50% stage 2 and 3 respectively, 96% squamous histology), 46% received 2 cycles and 54% received 3 cycles NACT. NACT was well tolerated (grade 2 anaemia 12%, grade 2neutropenia 12%, grade 2 thrombocytopenia 5%, grade 2 diarrhoea 7%, grade 2 neuropathy 3%). Thereafter, all patients completed radical CTRT. The median number of concurrent cisplatin cycles was 5 (IQR 2-5). CTRT was well tolerated (grade 2 anaemia 6%, grade 2 neutropenia 6%, grade 2 urinary symptoms 10%, grade 2 diarrhoea 17%). 96% patients achieved complete response. At a median follow-up of 62 months (IQR 30-93 months), the 5-year disease-free survival is 88% [83%: stage 2 and 91%: stage3, p=ns, Fig. 1b]. The 5-year overall survival (OS) is 91% [83% stage 2 and 95% stage3, p=ns, Fig. 1a]. The overall mortality rate is 15% (13% cancer-specific and 2% due to cardiovascular disease). The incidence of late toxicity was proctitis (4.5%) and cystitis (4.5%). All patients who relapsed locally (n=18) had associated systemic relapse, except 2 patients who had isolated systemic relapse.

Conclusions: Our mature real-world results reveal that NACT followed by Radical CTRT improves overall survival in LACC, and these results are comparable to prospective randomised data. This strategy is easily implementable in a LMIC and has low morbidity.

ABS-034

Demographic Profile and Clinical Outcome in Patients with Krukenberg Tumor: An Experience from a Tertiary Cancer Centre

Thiyagarajan Jeevanantham*, S Arora, P Singh, L Pandey, A Pandey, C.G. Prameela, S Pradhan, S Singhal, A Rajdev, D Chaturvedi
Department of Radiation Oncology, Rohilkhand Medical College and Hospital, Bareilly
*Junior Resident, Email: jeevanantham0609@gmail.com

Introduction: Krukenberg tumors (KT) are ovarian metastases originating from non-gynecological malignancies and are typically associated with a poor prognosis.

Aims & Objectives: To evaluate the demographic profile and clinical outcomes of patients with KT based on institutional experience.

Materials & Methods: A retrospective analysis was conducted on 21 patients diagnosed with KT between 2022 and 2025. Clinical characteristics, treatment modalities, and survival outcomes were assessed.

Results: The mean age of the cohort was 42.5 years. Abdominal pain was the most frequent presenting symptom. Gastrointestinal primaries accounted for 71.42% of cases, predominantly arising from the colon and stomach. Bilateral ovarian involvement was observed in 16 of 21 patients. The median overall survival was 9 months, and 18 patients had succumbed to the disease at the time of analysis. Subset analysis revealed improved survival among patients with an intestinal primary, unilateral ovarian metastasis, and those who completed more than six cycles of chemotherapy.

Conclusion: Despite the generally poor prognosis associated with KT, combined chemotherapy and radiotherapy may offer a survival benefit. Patients with an intestinal primary site appear to have a more favourable outcome compared to other sites.

ABS-035

Comparative Analysis of Conventional Versus Accelerated Radiotherapy with Concurrent Chemotherapy in Locally Advanced Head and Neck Cancer: A Prospective Study

Vikram Kumar Bairwa[*], Seema Devi
State Cancer Institute, Indira Gandhi Institute of Medical Sciences, Patna, Bihar
[*]Junior Resident, Email: vikrambairwa1222@gmail.com

Background: Locally advanced head and neck cancer require effective locoregional treatment while limiting treatment-related toxicity. Accelerated radiotherapy may reduce overall treatment time and counteract accelerated tumour repopulation. This study compared conventional versus accelerated radiotherapy with concurrent chemotherapy in locally advanced head and neck cancer.

Materials and Methods: This hospital-based prospective comparative study was conducted over 18 months at the Department of Radiation Oncology, State Cancer Institute, IGIMS, Patna. Sixty patients were randomly allocated into two groups of 30 each. Arm A received conventional radiotherapy (54–70 Gy in 33–35 fractions, 5 days/week), and Arm B received accelerated radiotherapy with the same total dose and fraction size, delivered 6 days/week. Both arms received concurrent weekly cisplatin 40 mg/m² or carboplatin AUC-2. Tumour response was assessed after treatment and at 1, 3 and 6 months. Acute toxicities were assessed weekly.

Results: Complete response at the end of treatment was 43.3% in Arm A versus 53.3% in Arm B (p=0.581). At 1, 3, and 6 months, complete response rates were 43.3% vs 53.3% (p=0.715), 50.0% vs 56.7% (p=0.875), and 50.0% vs 60.0% (p=0.796), respectively. Thus, accelerated radiotherapy showed a consistent numerical trend toward higher complete response, without statistical significance. Acute toxicities were predominantly grade 1–2 and comparable between groups. Dysphagia was significantly higher in Arm B during weeks 5–6, but differences were not significant during follow-up. Treatment interruptions were comparable (90% vs 86.67%; p=0.697).

Conclusion: Accelerated radiotherapy with concurrent chemotherapy demonstrated a numerical trend toward improved tumour response with an overall comparable and manageable acute toxicity profile.

ABS-036

SMARCA4-deficient undifferentiated carcinoma of the gallbladder: a rare case report

Palak Aggarwal*, Shivani Malik, Paruj Khan, Parul Singh, Renu Singh, Ashok Kumar Arya
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Junior Resident, Email: palakagg1999@gmail.com

Introduction: SMARCA4 undifferentiated carcinomas comprise of rare and highly aggressive group of carcinomas arising from inactivation of the SMARCA4 gene, a key component of SWI/SNF chromatin remodeling complex, thereby causing loss of BRG1 protein. These tumors have been seen in multiple organ systems; gallbladder involvement is highly uncommon, with very few reported cases.

Aim and objectives: To describe a rare case of SMARCA4-deficient undifferentiated carcinoma of gall bladder in a 49-year-old woman with advanced, unresectable disease, emphasizing on its diagnostic challenges, distinct IHC profile, aggressive clinical course, to contribute to the sparse existing literature, and to highlight the need of development of standardized diagnostic and therapeutic approaches.

Case description: A 49-year-old woman presented in RT OPD with progressive right upper abdomen pain and anorexia, with a history of abandoned laparoscopic cholecystectomy attempt due to extensive local disease; only biopsy was obtained. CECT abdomen demonstrated a gallbladder mass with hepatic infiltration and bulky peripancreatic lymphadenopathy, staged radiologically as cT4N2 (stage IVa). Histopathology revealed a poorly differentiated small round cells and IHC confirmed loss of BRG1(SMARCA4) with retained INI-1 expression, focal synaptophysin and TTF1 positivity persistent with SMARCA4-deficient undifferentiated carcinoma. Due to Persistent leukopenia with severe thrombocytopenia, systemic therapy was ruled out for this patient, and palliative radiotherapy was planned for Palliative Radiotherapy by 3-dimensional conformal radiotherapy (3D-CRT) technique in RT dose 30 Gy in10 fractions with 5 fractions /week to the primary disease.

Result: Subjective response after palliative radiotherapy was approximately 70% pain reduction and functional improvement. However, 2 months post RT patient developed progressive ascites with recurrent vomiting, anorexia and was expired 3 months post RT.

Conclusion: SMARCA4-deficient undifferentiated carcinoma of gall bladder is an exceptionally rare and aggressive malignancy with good potential of radiation treatment in symptom palliation. As there is limited literature available, it is important to do further research to establish evidence- based diagnostic and therapeutic guidelines for such rare cases.

ABS-037

Breast Cancer Prevention: A Comparative Analysis of Knowledge, Attitudes, and Practices Regarding Breast Self-Examination Among Female Healthcare Workers in Rural and Urban India

Shashank Singhal*, L Pandey, A Pandey, C.G. Prameela, S Pradhan, S Arora, P Singh, S Singhal, J Thiyagarajan, D Chaturvedi
Department of Radiation Oncology, Rohilkhand Medical College and Hospital, Bareilly
*Junior Resident, Email: dr.shhshank@gmail.com

Introduction: Breast cancer is the most common cancer among Indian women, and many patients present at an advanced stage. Breast self-examination (BSE) is a simple, low-cost tool for early detection, which female healthcare workers are expected to practise and promote.

Aims & Objectives: To assess and compare the knowledge, attitudes, and practices related to breast cancer prevention through BSE among female healthcare workers in rural and urban India. The study also aimed to identify barriers and facilitators influencing BSE practices in these settings.

Materials & Methods: This cross-sectional study was conducted in rural and urban regions of India. A stratified sampling approach was used to ensure diverse representation of healthcare workers, including nurses, medical technicians, and doctors. Data were collected using a structured, pre-validated questionnaire assessing awareness of breast cancer risk factors, attitudes toward BSE, and the frequency and accuracy of BSE practices. Responses were analyzed using descriptive and inferential statistical methods, including chi-square tests and logistic regression, to compare rural and urban participants and determine key predictors of BSE adherence. Focus group discussions explored socio-cultural and institutional barriers to BSE practices.

Results: A significant disparity in knowledge and practice of BSE was observed between rural and urban healthcare workers. Urban participants demonstrated higher levels of awareness and more consistent BSE practices compared to their rural counterparts. Key barriers identified in rural settings included limited training, socio-cultural constraints, and misconceptions about breast cancer and BSE. Despite urban participants exhibiting better outcomes, gaps in both groups highlighted the need for comprehensive educational programs.

Conclusion: This study underscores the importance of targeted educational initiatives and training programs to bridge the gap in knowledge and practice of BSE among female healthcare workers, particularly in rural areas. Strengthening awareness and adherence to breast cancer prevention practices in healthcare professionals can significantly contribute to early detection and improved outcomes.

ABS-038

Impact of Body Mass Index on Treatment Outcomes in Locally Advanced Head and Neck Cancer Patients Treated with Concurrent Chemoradiotherapy

Akansha Rajdev*, L Pandey, A Pandey, C.G Prameela, S Pradhan, S Arora, P Singh, S Singhal, J Thiyagarajan, D Chaturvedi
Department of Radiation Oncology, Rohilkhand Medical College, Bareilly
*Junior Resident, Email: akansha.rajdev2104@gmail.com

Introduction: Nutritional status plays an important role in treatment tolerance and outcomes in patients with head and neck cancer. Body Mass Index (BMI) is an easily measurable indicator of nutritional status; however, its impact on treatment-related toxicity and survival remains inadequately studied, particularly in the Indian population.

Aims & Objectives: To evaluate the association of pre-treatment BMI with treatment-related toxicity, treatment interruption, nutritional support, and survival outcomes in patients with locally advanced head and neck cancer undergoing chemoradiotherapy.

Materials & Methods: This retrospective multi-institutional observational study included 212 patients with histopathologically confirmed locally advanced head and neck squamous cell carcinoma treated between October 2022 and July 2025. Patients aged 18–75 years with ECOG performance status 0–2 who received definitive radiotherapy with or without concurrent weekly cisplatin were included. Pre-treatment BMI was categorized according to WHO criteria. Toxicities were assessed using CTCAE v5.0. Overall survival (OS) and locoregional control (LRC) were analyzed using Kaplan–Meier methods, and prognostic factors were evaluated using Cox regression analysis.

Results: Among 212 patients, 40.1% were underweight, 45.8% normal weight, 12.3% pre-obese, and 1.9% obese. Median follow-up was 14 months. Median OS and LRC were 25 and 24 months, respectively, with a 3-year OS of 46.3%. Underweight patients had significantly higher rates of grade >1 mucositis, dermatitis, and candidiasis (p=0.001) and required nutritional support more frequently (44.7%, p=0.039). Three-year OS was lowest among underweight patients (38%) and highest in obesity class I (100%; p=0.011). On multivariate analysis, BMI category, T stage, and nodal stage were independent predictors of OS.

Conclusion: Pre-treatment BMI is a significant prognostic factor in locally advanced head and neck cancer treated with chemoradiotherapy. Underweight patients demonstrate greater treatment-related toxicity and inferior survival outcomes, highlighting the importance.

ABS-039

Cochlear Delineation on Planning CT for Cochlear-Sparing IMRT in Head & Neck cancers: A CT-Based Approach to Standardization

Tinka Biswas*, Nitin Kumar, Punita Lal, Treshita Dey, Shaleen Kumar, Senthil Kumar
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, Email: biswastinka72@gmail.com

Introduction: Intensity-modulated radiotherapy (IMRT) technique spares organs at risk (OARs) such as parotid glands in Head and neck cancers (HNC). Radiotherapy dose of> 45 Gy to the cochlea leads to sensorineural hearing impairment and therefore needs to be considered as an OAR. It is, however, a very small structure and difficult to delineate on CT scan images, making cochlear sparing IMRT planning tedious. We attempted to standardize the delineation of cochlea in a CT dataset of already treated HNCs.

Methodology: Retrospectively, cochlear delineation was seen in 59 patients of HNCs. Planning CT scans was acquired in all, in supine position with thermoplastic immobilization cast and neck rest. IV contrast 2ml/kg was administered, and a high-resolution planning CT (including bone window) was done on Somatom Sensation open 40 multislice CT scanner, with 2mm slice thickness. Bilateral cochlea were delineated on the acquired scan, setting window level from 2500 to 400 HU (bone window). The cochlea was visualised superior to the lateral-most end of the internal auditory canal. Once the cochlea was identified, an expansion of 3mm circumferentially was given in all, for planning risk volume.

Results: With 2 mm slice thickness, on average, the cochlea was visualised on 2 consecutive (bone window) slices only. The mean cochlear volume was 0.08 cc (range 0.00- 0.48 cc) in this group. The volume was slightly greater in males (0.08cc in 55 males versus 0.05cc in 4 females of the group). In this cohort of HNC, 23 cases were above 60 years (age range: 33 - 86 years). The mean cochlear volume was identical in older versus younger adults (0.08cc).

Conclusion: Cochlea is a small OAR and therefore a high-resolution bone window CT using 2mm or lesser slice thickness, at a defined window level setting of 400 HU, may be considered appropriate for accurate delineation of cochlea. The cochlear volume was greater in males as compared to females.

ABS-040

When Infantile Fibrosarcoma Reaches the Spine: A Rare Thoracolumbar Presentation

Divisha Kumar[1*], Shalini Singh[1], Manoj Jain[2], Vinita Agrawal[2],
Department of Radiotherapy[1], Department of Pathology[2], Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Junior Resident, Email: divisha.kr@gmail.com

Background: Infantile fibrosarcoma (IFS) is a rare malignant mesenchymal tumor occurring predominantly during infancy and the first two years of life. It most commonly arises in the extremities, whereas axial and paraspinal presentations are uncommon.

Case Presentation: A 1-year-old male child, with no significant previous medical or surgical history and age-appropriate development, presented with insidious and progressive bilateral lower-limb weakness for 8 months. Contrast-enhanced MRI of the head and whole spine revealed a 2.8 × 3.6 × 6.4 cm well-defined soft-tissue mass in the right posterolateral D9–L2 region, extending into the spinal canal along the right lateral aspect of the thecal sac, causing dorsal cord compression and cord edema. PET-CT demonstrated a similarly sized non-FDG-avid right paraspinal mass. Surgical excision with frozen-section evaluation was performed on 9 December 2025. Histopathology was suggestive of a mesenchymal neoplasm, favouring infantile fibrosarcoma. Immunohistochemistry showed diffuse strong cytoplasmic vimentin expression, diffuse CD45 positivity, focal CD117 positivity, and occasional CD20 positivity. Myogenin, STAT6, S100, NKX2, TdT, CD34, SMA, and OCT3/4 were negative.

Discussion: The unusual paraspinal location, extensive intraspinal extension, and neurological presentation make this case distinct from the typical extremity-based presentation of IFS. Diagnosis may be challenging because of morphological overlap with other paediatric spindle-cell neoplasms. Molecular characterization, particularly assessment for NTRK fusions, may provide additional diagnostic and therapeutic information.

Conclusion: This case highlights a rare thoracolumbar paraspinal presentation of IFS with spinal cord compression in a one-year-old child. Recognition of this entity is important in the differential diagnosis of paraspinal masses in infants presenting with progressive neurological symptoms. Multidisciplinary evaluation with appropriate histopathological and molecular characterization is essential for management.

ABS-041

Orbital Ewing Sarcoma Masquerading as Orbital Apex Syndrome: A Diagnostic and Therapeutic Challenge

Riddhiman Biswas*, Sunil Choudhary, S Sachin

Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh

*Junior Resident, Email: riddhi.imsbhu@gmail.com

Background: Primary Ewing sarcoma of the orbit and skull base is extremely rare in adolescents, frequently misdiagnosed as invasive sino-orbital infection or orbital apex syndrome.

Case summary: A 17-year-old female presented with progressive vision loss in left eye for 3 months, left facial pain, and pale optic disc. Contrast-enhanced MRI brain demonstrated a 3.7 × 3.4 × 2.0 cm peripherally enhancing mass centered at left orbital apex with diffusion restriction, involving posterior ethmoid/sphenoid sinuses, left cavernous internal carotid artery, and anteromedial temporal lobe. Nasal endoscopy revealed a vascular sphenoid mass. Histopathology with immunohistochemistry showed malignant small round blue cell tumor with diffuse CD99, FLI-1, and NKX2.2 positivity, diagnostic of Ewing sarcoma. Metastatic workup was negative.

Results: Patient received neoadjuvant alternating VDC/IE chemotherapy, achieving partial radiological response. Definitive local control was achieved using external beam radiotherapy (total 54 Gy: 45 Gy initial field followed by 9 Gy boost), followed by adjuvant VDC/IE cycles. Surveillance imaging demonstrated local disease stability with preserved contralateral ocular function.

Conclusion: Orbital Ewing sarcoma should be considered in differential diagnosis of orbital apex syndrome in adolescents. Combined VDC/IE chemotherapy with definitive radiotherapy provides effective local control.

ABS-042

Health-related quality of life among women with cervical cancer after radiotherapy-based management: a single-centre cross-sectional FACT-Cx study

Devansh Chaturvedi*, S Arora, P Singh, L Pandey, A Pandey, C.G. Prameela, S Pradhan, K Grover, S Singhal, A Rajdev, J Thiyagaraja
Department of Radiation Oncology, Rohilkhand Medical College and Hospital, Bareilly, Uttar Pradesh
*Resident, Email: 88devansh88@gmail.com

Introduction: Health-related quality of life (HRQoL) is an important survivorship outcome after cervical cancer treatment, particularly following multimodality pelvic radiotherapy. Indian data using the cervical-cancer-specific Functional Assessment of Cancer Therapy-Cervix (FACT-Cx) instrument remain limited.

Aims & Objectives: To describe multidomain HRQoL using FACT-Cx among women treated for cervical cancer at a tertiary radiation-oncology centre in North India and explore associations with selected clinical variables.

Materials & Methods: This single-centre cross-sectional study included 27 women with cervical cancer who completed a telephone, interviewer-administered licensed Hindi FACT-Cx Version 4 assessment. Clinical and treatment data were abstracted from departmental records. FACT-Cx subscales, FACT-General, Trial Outcome Index (TOI), and total FACT-Cx scores were calculated according to FACIT rules. Exploratory associations used Spearman correlation and Mann-Whitney U tests.

Results: Mean age was 52.4 ± 8.3 years; 22/27 (81.5%) received definitive treatment, and 25/27 (92.6%) had squamous-cell carcinoma. All participants completed all 42 FACT-Cx items. Mean total FACT-Cx was 114.7 ± 8.5 (95% CI 111.3-118.0), with median 117 (IQR 108-119.5). Mean physical, social/family, emotional, functional, and cervix-specific scores were 16.9, 23.6, 15.9, 17.8, and 40.4, respectively. Vaginal discharge/bleeding and odor were uncommon, while psychosexual concerns were prominent: all participants reported no or little interest in sex, 77.8% felt sexually attractive not at all or only a little, and 74.1% liked their body appearance not at all or only a little. Older age showed a modest inverse association with total FACT-Cx score (Spearman ρ=-0.43; p=0.024).

Conclusion: Social/family well-being and illness acceptance were relatively preserved, despite residual physical, functional, emotional, sexual, and body-image burden. Structured patient-reported HRQoL assessment may identify survivorship needs not captured by disease-control endpoints alone.

ABS-043

Central Giant Cell Granuloma of the Hard Palate Along with Renal Cell Carcinoma: A Rare Case Report

Parul Singh*, P Aggarwal, P Khan, A.K. Arya
Department of Radiotherapy, Sarojini Naidu Medical College, Agra, Uttar Pradesh
*Junior Resident, Email: Singhparul8368@gmail.com

Introduction: Central giant cell granuloma (CGCG) is an aggressive and rare benign lesion of maxillofacial region that can cause significant destruction of jaw bone, causing functional impairment and facial deformity. GCG comprises 0.1% of all the tumors of facial bone. These tumors mainly involve long bones; involvement of hard palate is highly uncommon, with few reported cases.

Aim & Objective: To report an uncommon case of unresectable hard palate CGCG with RCC, highlighting diagnostic challenges and multidisciplinary management.

Case Report: A 40-year-old female presented with lower backache for 1.5 years and an ulcer for 6 months. PET-CT whole-body demonstrated metabolically active mass in right pelvicalyceal system involving pelvis and upper ureter, along with FDG avid lytic lesion on hard palate, and the right 1st upper premolar tooth seen. Histopathology from mass in pelvicalyceal revealed dispersed atypical cells with glandular and acinar formation, likely adenocarcinoma, while histopathology from lesion on hard palate stated lesion comprising osteoclast-like multinucleated giant cells, mononuclear stromal cells, haemorrhage, and necrosis, without atypia, suggestive of CGCG diagnosis. Surgical resection of lesion on hard palate was deferred by ENT in view of locally advanced disease. The patient was given radiotherapy by single direct anterior field to local disease over hard palate on cobalt-60 in dose 21 Gy/7# and started on tablet sunitinib (50 mg daily) after RT completion.

Result: Radiotherapy provided 30% subjective relief in pain at local site with no size reduction. After 4 cycles of targeted therapy, patient showed 80% reduction in lesion size on hard palate, accompanied by 70% subjective relief in back pain.

Conclusion: CGCG is a benign but aggressive osseous lesion. Unresectable disease poses therapeutic challenges. In such cases, radiotherapy may provide symptomatic benefit, while systemic therapy may contribute to local disease regression. Further research is needed to establish standardized treatment approaches.

ABS-044

Skull-Base Metastasis in HER2-Positive Breast Carcinoma- A Case Report

Yeshwini M[*], Isha Jaiswal, Sunav Basu Biswas

Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh

[*]Junior Resident, Email: myeshwini13@gmail.com

Introduction: Breast carcinoma commonly metastasizes to bone, predominantly the axial skeleton. Skull and particularly skull-base metastases are uncommon and may remain clinically occult. The sphenoid bone is an unusual site of metastatic involvement and poses diagnostic and therapeutic challenges.

Background: To describe the clinical course, metastatic pattern and multidisciplinary management of a patient with HER2-positive breast carcinoma who developed liver and skull-base metastases, and to highlight the role of local radiotherapy alongside systemic treatment.

Case Presentation and Results: A 48-year-old postmenopausal woman presented in February 2024 with a painless breast lump of 7–8 months duration. Examination revealed a 2 × 2 cm upper inner quadrant lump with ipsilateral axillary lymphadenopathy; ultrasound showed a BI-RADS 4C lesion. Histopathology confirmed grade II invasive ductal carcinoma (3 × 2.5 × 1 cm) with lymphovascular invasion and axillary nodal metastases (pT2N2). The tumour was ER-positive, PR-negative, and HER2-positive. She received six cycles of adjuvant chemotherapy, followed by radiotherapy to the chest wall and regional lymphatics (40.6 Gy in 15 fractions), then endocrine and bone-directed therapy. Ten months after radiotherapy, she presented with occipital pain. Restaging PET-CT demonstrated multiple liver metastases, the largest measuring 5.3 × 3.1 cm, and a lytic lesion of the greater wing of the sphenoid. Systemic treatment was modified to fulvestrant with HER2-directed and endocrine therapy, and palliative radiotherapy (30 Gy in 10 fractions) was delivered to the skull-base lesion. Systemic therapy was continued, with anastrozole later discontinued. At latest follow-up, the patient reported approximately 90% subjective clinical improvement.

Conclusion: Skull-base metastasis from breast carcinoma is uncommon, with limited incidence data. This case highlights the importance of vigilant surveillance and multidisciplinary care. Combining HER2-directed systemic therapy with targeted palliative radiotherapy can provide substantial symptomatic benefit in complex metastatic disease.

ABS-045

Contralateral Nodal Recurrence in Carcinoma Tongue with Ipsilateral Neck Dissection: A Retrospective Analysis

Satyajeet Das[1*], Sambit S Nanda[1,6], Shreya Jain[1], Ashutosh Mukherji[1,6], Ajay Chaubey[1,6], Shubham Dokania[1], Aseem Mishra[4,6], Sunayna Sarkar[4,6], Akhil Kapoor[3,6], Lokendra Gupta[4,6], Ipshita Dhal[2,6], Himani Rai[2,6], Pritam Mondal[1], Sakshi Dard[1], Rahul S Sisodia[1]

Departments of [1]Radiation Oncology, [2]Oncopathology, [3]Medical Oncology, [4]Head and Neck Surgical Oncology, Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) & Homi Bhabha Cancer Hospital (HBCH), (Units of Tata Memorial Centre, Mumbai), Varanasi,[6]Homi Bhabha National Institute, Mumbai

[*]Junior Resident, Email: satyajeetdas98@gmail.com

Aims: To evaluate the incidence and pattern of CLNR, CLNR-free survival (CLNRFS), and risk factors predicting CLNR in well-lateralized early-stage tongue cancers treated with surgery of the primary and ipsilateral neck dissection (ILND) with or without bilateral neck radiotherapy (RT).

Materials and methods: Consecutive patients of well-lateralized tongue cancer treated between 2019 and 2023 were included. The primary endpoint was incidence of CLNR and CLNRFS. Univariate and multivariate analyses were carried out to identify potential factors predicting CLNR.

Results: Among 499 eligible patients, 52(10.4%) developed CLNR at a median follow-up of 40 months. CLNR incidence was 15.9% among patients with node-positive disease, and 28/52(53.8%) patients with CLNR had ipsilateral node-positive disease at presentation. CLNR occurred most frequently in level II. The mean CLNRFS was 85.7 months (95% CI: 75.1–96.2), with 1- and 4, CLNRFS rates of 90.4% and 77.0% respectively. Median overall survival (OS) was 84.5 months (95% CI: 57.8–111.2), with 1 and 4 OS rates of 94.6% and 81.4%, respectively. Patients with CLNR had significantly poorer OS (19.6% vs. 82.2%; $p<0.001$). Analysis of ipsilateral nodal levels identified level II (OR 2.86, $p<0.001$) and level III (OR 3.09, $p=0.004$) involvement as significant predictors of CLNR. On univariate analysis, pN3b (HR 10.9, $p<0.001$) and extra nodal extension (ENE) (HR 8.27, $p<0.001$) were the strongest adverse factors correlating with CLNR. Poor differentiation, ENE, WPOI 4-5, pT4, pN1/N2b disease were independent predictors of CLNR on multivariate analysis.

Conclusion: ILND alone in well-lateralized oral tongue cancer is associated with increased CLNR in high-risk patients, resulting in inferior CLNRFS. pT4 disease, N+ disease with ENE and PPOI 4-5 requires a cautious approach and may warrant comprehensive bilateral dissection and adjuvant RT.

ABS-046

The Bladder Doesn't Stay Still: Interfractional Bladder Volume Variability and Its Dosimetric Implications During CBCT-Guided IGRT for Muscle-Invasive Bladder Cancer

Fatima Zohra Khatoon*, Arun Kumar Verma, Kishore Singh, Faraz Badar, Chirag Saddi
Department of Radiation Oncology, Subharti Medical College, Meerut, Uttar Pradesh
*Resident, Email: khanfatima0106@gmail.com

Introduction: Muscle-invasive bladder cancer (MIBC) treated with bladder-preserving radiotherapy requires adequate bladder filling to maintain reproducible target geometry and spare surrounding organs. Despite standardized bladder preparation, substantial interfractional variation may occur and potentially alter dosimetry.

Aims & Objectives: To quantify interfractional bladder volume variability during CBCT-guided IGRT and evaluate its associated dosimetric implications for the bladder, bowel, and rectum.

Materials & Methods: This retrospective dosimetric study included MIBC patients treated with 64.5 Gy in 30 fractions using CBCT-guided IGRT and a standardized full-bladder protocol. Bladder volume and mean doses to bladder, bowel, and rectum were recorded at planning CT and on treatment CBCTs at fractions 5, 10, 15, 20, 25, and 30. Percentage change from planning bladder volume and corresponding dosimetric deviations were assessed.

Results: Eight patients with complete serial data were analyzed. Mean planning bladder volume was 180.2 cc, decreasing to 144.8, 158.8, 130.7, 110.7, 95.7 and 95.9 cc at fractions 5, 10, 15, 20, 25 and 30, respectively. Mean percentage volume change from planning was −17.9%, +0.4%, −17.3%, −29.9%, −34.8% and −34.6%, with a mean absolute percentage deviation of 35.2% across treatment fractions. Despite marked volume variability, mean bladder dose remained relatively stable, with deviations from planning ranging from −0.23 to +0.07 Gy across fraction time points. In contrast, mean bowel and rectal doses were consistently higher than planning values, by approximately 10.3–12.3 Gy and 4.4–6.3 Gy, respectively.

Conclusion: Considerable interfractional bladder volume variability was observed despite standardized bladder preparation, with progressive reduction in bladder volume during treatment. Although bladder mean dose showed minimal variation, changes in bowel and rectal dosimetry were evident. These findings highlight the potential limitations of relying solely on planning-CT anatomy and support further evaluation of adaptive or response-guided strategies in MIBC radiotherapy.

ABS-047

Beyond the Invasive Front: Association of Tumour Budding and WPOI with Adverse Pathological Features and Outcomes in Resected Oral Cavity Squamous Cell Carcinoma

Aishna*, Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava, Kanchan Kumari, Vaishnav Tripathi, Ashish Singhal, Akash Agarwal, Vikas Sharma

Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh

*Senior Resident, Email: kaashyapaishna@gmail.com

Introduction: Oral cavity squamous cell carcinoma (OCSCC) shows considerable biological heterogeneity, with some tumours behaving aggressively despite similar TNM stage. Histopathological features at the invasive tumour front, particularly tumour budding (TB) and Worst Pattern of Invasion (WPOI), may provide additional prognostic information.

Aim: To evaluate the prognostic significance of TB and WPOI, their association with adverse histopathological features, and their impact on survival in resected OCSCC.

Methods: This retrospective study included 169 patients with OCSCC treated between 2019 and 2025 with upfront surgery followed by adjuvant radiotherapy ± chemotherapy. TB was classified as positive or negative, and TILs as high (+++/more) or low (+/++). Associations were assessed using Chi-square test and survival using Kaplan–Meier analysis, with $p<0.05$ considered significant.

Results: Among 169 patients, 87.6% were male; buccal mucosa (52.1%) and tongue (32.5%) were the predominant sites, and 72.8% had stage III–IV disease. DOI ≥10 mm, PNI, LVI, positive margins, and ENE were present in 52.1%, 36.1%, 32.5%, 22.5%, and 17.2%, respectively. TB was present in 58.0% and WPOI-5 in 16.6%. TB was significantly more frequent in WPOI-5 than WPOI ≤4 tumours (88.0% vs 62.9%; p=0.016) and was associated with an infiltrative pattern of invasion (70.7% vs 36.4%; p=0.020). WPOI-5 was associated with LVI (53.6% vs 29.8%; p=0.017) and TILs (39.1% vs 16.4%; p=0.014), with a trend for ENE (p=0.059). Among 166 evaluable patients, 22 deaths and 45 recurrences occurred. Estimated 2-year OS and DFS were 86.7% and 70.0%, respectively. Neither TB nor WPOI-5 significantly influenced DFS (p=0.520 and p=0.907, respectively) or OS.

Conclusion: TB was significantly associated with WPOI-5, while WPOI-5 correlated with LVI and TILs, supporting their association with invasive tumour biology. However, neither independently translated into significant survival differences, warranting longer follow-up and multivariable analysis.

ABS-048

Computed Tomography-Based Customized High-Dose-Rate (HDR) Surface Mould Brachytherapy (SMB) for Superficial Tumors: Experience of 16 Patients

Sarsij Mishra*, Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, Email: sarsijmishra007@gmail.com

Introduction: For accessible superficial and cutaneous tumors, SMB yields promising outcomes. This study evaluates local control, functional outcomes, and acute toxicities.

Aims & Objectives: To evaluate feasibility, dosimetric characteristics, treatment efficiency, toxicity, and clinical outcomes of customized CT-based HDR SMB for superficial tumors.

Materials & Methods: Sixteen patients (July,2018–June,2026) were retrospectively analyzed. Histologies included H&N BCC(n=5) and SCC(n=5), SCC of cervix with digital metastasis(n=1), chest wall myxoliposarcoma(n=1), right great toe giant cell tumor(n=1), left toe leiomyosarcoma(n=1), scalp Bowen's disease(n=1), and scalp dermatofibrosarcoma protuberans(n=1). Indications were definitive radiotherapy(n=9), close/margin-positive disease(n=6), oligometastatic skin SCC(n=1) and reirradiation(n=1). Customized patient-specific moulds with embedded catheters were fabricated for target coverage using rapid dose fall-off. CT simulation with radiopaque wires guided planning with 5-mm dwell spacing and normalization at basal points for 95% CTV coverage via an Iridium-192 HDR afterloading unit. Lesion coverage factor (LCF) was calculated. Acute toxicity was assessed using CTCAE v5.0.

Results: Median age was 59 years (18–91) with a 3:1 male: female ratio and median follow-up of 44.8 months (1–50). Median dose was 36 Gy (30–39 Gy) at 3.5 Gy per fraction (3–4.5 Gy), twice daily. Median planning and delivery times were 20 and 15 minutes; LCF was 95–100%. Grade II and III skin reactions occurred in 62% and 25%, peaking at a median of 14 days and healing within 4- 8 weeks. Late toxicity occurred in 50%. Local recurrence in 1 patient yielded 93.75% local control.

Conclusion: Customized CT-based SMB provides reproducible delivery, high lesion coverage, rapid treatment times, and excellent local control for superficial tumors, though larger cohorts are needed.

ABS-049

Characteristics of patients who underwent non-surgical management in locally advanced rectal carcinoma [LARC]

Abhishek Rathi*, Aditi Agrawal, Sushma Agrawal
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Resident, Email: rathi.abhi18@gmail.com

Background: Neoadjuvant concurrent chemoradiation is an established treatment modality for LARC, which yields modest response rates. High response rates are desirable for organ preservation, especially in lower third rectal cancer, to avoid permanent colostomy. Thus, there is a need for escalating neoadjuvant treatment for better outcomes, which is possible with total neoadjuvant treatment approach (TNT) with/without high-dose external beam radiotherapy.

Aims and Objectives: To evaluate the patient characteristics who underwent unintentional non-surgical management (NOM) in LARC.

Materials and Methods: Patients were treated with induction CT (3 cycles) followed by long-course CTRT (LCRT, 45Gy/25#/5wk) followed by consolidation CT (n=2-3cycles depending upon tolerance). All patients received concurrent capecitabine @1650 mg/m2 (d1-5, weekly). We evaluated characteristics of 5 patients who had good response to TNT (by RECIST criteria). Those with complete clinic-radiological response were kept on NOM and followed up 3 monthly with clinical examination, colonoscopy, and MRI in first two years and thereafter 6 monthly for next 5 years. Demographic data, treatment characteristics, and outcomes were collated.

Results: The median age was 47.5 years, with male: female ratio of 2:3. TNM stage was: T2 (n=1), T3 (n=3), T4 (n=1), N0 (n=2), N1(n=1), N2 (n=2). According to site, they were upper one-third (n=2), middle one-third (n=1), lower third disease (n=2). Length of disease was <6 cm (n=3) and > 6 cm in (n=2). 4 had MRF involvement. All received 3-4 cycles induction CT, followed by LCRT, followed by 1-2 cycles consolidation CT. At a median FU of 24 months, presently all are disease free.

Conclusions: Based on our data, we can conclude that preferably T3, N0 are suitable candidates for NOM. Apart from this, TNT and LCRT facilitates organ preservation.

ABS-050

Neuroblastoma of the Palate Masquerading as Melanotic Neuro-Ectodermal Tumor of Infancy: A Rare Presentation with Diagnostic Dilemma

Chetna*, Shreya Jain, Ashutosh Mukherji, Sambit Swarup Nanda, Ajay Kumar Choubey, Ajay S Krishnan, Jhansi Pattanaik, Zachariah Chowdhury, Soumitra Saha, Raghwesh Ranjan, Satyajeet Das
Department of Radiation Oncology, Homi Bhabha Cancer Hospital (HBCH) & Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC), (Units of) Tata Memorial Centre (TMC), Varanasi, Homi Bhabha National Institute, Mumbai
*Junior Resident, Email: chetnahbch@gmail.com

Introduction: Neuroblastoma (NB) is the most common extracranial solid tumor in children, arising from neural crest progenitor cells. It accounts for approximately 15% of pediatric cancer-related deaths and most commonly originates in the adrenal glands. Hard palate involvement is exceedingly rare. We report a rare case of hard palate neuroblastoma initially misdiagnosed as melanotic neuroectodermal tumor of infancy (MNTI).

Aims & Objectives: To describe the diagnostic challenges, imaging characteristics, and multimodal management of hard palate neuroblastoma mimicking MNTI.

Materials & Methods: Clinical records, imaging, histopathology, immunohistochemistry (IHC), molecular investigations, and treatment details of a child managed at a tertiary cancer center were reviewed.

Results: A female child initially presented at 2.5 months of age with a small round cell tumor of the upper jaw. Surgical debulking and histopathology suggested MNTI, and she was kept under observation without adjuvant treatment. Three years later, the lesion recurred and was re-resected, with findings again suggestive of MNTI. Rapid progression occurred within three months, presenting as a 5.0 × 4.3 × 5.6 cm hard palate mass extending into the nasal bridge and right infraorbital region, with erosion of the orbital floor and cribriform plate. Histopathological review demonstrated poorly differentiated neuroblastoma, supported by IHC positivity for synaptophysin and chromogranin. Molecular analysis revealed gains involving chromosomes 1p, 3p, and 4p. Staging investigations showed no distant metastases. The patient received carboplatin and etoposide chemotherapy, resulting in significant tumor reduction after four cycles, followed by definitive radiotherapy (25.2 Gy in 14 fractions) using volumetric modulated arc therapy. Treatment was well tolerated, with only Grade 1 toxicities, and further tumor regression was observed.

Conclusion: Hard palate neuroblastoma can closely mimic MNTI, creating a significant diagnostic dilemma. Comprehensive histopathological, immunohistochemical, and molecular evaluation is essential for accurate diagnosis. Multidisciplinary management incorporating chemotherapy and radiotherapy can achieve meaningful tumor regression and disease control.

ABS-051

Beyond the Uterine Wall: Target Coverage and Organ-at-Risk Dosimetry in Tandem Perforation During Cervical Brachytherapy

Chirag Saddi*, Arun Kumar Verma, Kishore Singh, Faraz Badar, Fatima Zohra
Department of Radiation Oncology, Subharti Medical College, Swami Vivekanand Subharti University, Meerut, Uttar Pradesh
*Resident, Email: drchiragsaddi@gmail.com

Introduction: Tandem perforation is a complication of intracavitary cervical brachytherapy and may alter the relationship between the applicator, high-risk clinical target volume (HR-CTV), and adjacent organs at risk (OARs). Its dosimetric impact remains incompletely characterized.

Aims & Objectives: To determine the frequency and anatomical distribution of uterine tandem perforation and evaluate its association with HR-CTV coverage, OAR dosimetry, and Point A dose during CT-guided high-dose-rate (HDR) cervical brachytherapy.

Materials & Methods: This retrospective single-institution study included 16 patients contributing 48 CT-guided HDR brachytherapy fractions. Definite perforation was defined by CT evidence of the tandem traversing the uterine wall. All fractions used an intracavitary ovoid technique without interstitial needles. HR-CTV D90, rectum D2cc, bladder D2cc, and sigmoid D2cc were prespecified endpoints. Patient-clustered regression adjusted for prescribed dose and fraction number, with wild-cluster bootstrap inference. Within-patient analysis was performed in patients with both perforated and non-perforated fractions.

Results: Definite perforation occurred in 15/48 fractions (31.3%) involving 8/16 patients (50.0%). Posterior perforation was most frequent (9/15, 60.0%), followed by anterior (3/15, 20.0%) and fundal (3/15, 20.0%). Adjusted patient-clustered analysis showed lower HR-CTV D90 with perforation (7.97 vs 8.97 Gy; difference −1.24 Gy; p=0.24). Rectum D2cc was similar (5.56 vs 5.71 Gy; p=0.88), bladder D2cc was numerically lower (5.76 vs 7.46 Gy; difference −1.12 Gy; p=0.11), and sigmoid D2cc was slightly higher (5.00 vs 4.82 Gy; difference +0.92 Gy; p=0.25). HR-CTV D98 and D100 showed similar non-significant reductions. Among five patients with mixed exposure, D90 was lower during perforation in four; mean within-patient difference was −1.10 Gy (p=0.31).

Conclusion: Tandem perforation occurred in one-third of fractions and one-half of patients. Perforated insertions showed a numerical tendency toward lower HR-CTV dose, but no primary endpoint was statistically significant after patient-level adjustment. Larger datasets are needed to determine whether these patterns are reproducible.

ABS-052

Adenoid Cystic Carcinoma of the Head and Neck: Demographic Profile, Treatment Outcomes and Follow-up - A Retrospective Case Series

Anvesh Agrawal*, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava, Gandhi A.K.
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, anveshagrawal333@gmail.com

Introduction: Adenoid cystic carcinoma (ACC) is a rare malignancy with indolent growth, perineural invasion, and late recurrence. Population-based survival after resection falls from 77% at 5 years to 60% at 10 and 26% at 25 years; the benefit of postoperative radiotherapy (PORT) remains debated.

Aims and Objectives: To describe the demographic profile, treatment, and follow-up outcomes of head and neck ACC at our institute.

Materials and Methods: A total of 40 patients of ACC of head and neck were registered between 2014-2025 in our institute; however, 28 patients were excluded (due to unavailability of medical records). So, this is a retrospective review of 12 histologically confirmed head and neck ACC patients. Demographic, clinicopathological, treatment, recurrence, and last follow-up data were analysed descriptively.

Results: Eight patients (67%) were female; median age was 42 years (range 23–68); five (42%) used tobacco. Primary sites: major salivary glands seven (parotid 3, sublingual 2, submandibular 2), sinonasal three, oral cavity two. T stage was pT1 in two, pT2 in two, pT3 in three, unrecorded in five. Preoperative biopsy was discordant in three (pleomorphic adenoma 2, mammary analogue secretory carcinoma 1). Perineural invasion occurred in seven (58%). Nine received adjuvant 3D-conformal radiotherapy and one with concurrent cisplatin; three defaulted. Median follow-up of nine evaluable patients was 76 months: six (66.67%) were in complete response, one partial response, two progressive disease. Three recurred (nodal; local plus distant; nodal plus distant) 2.6–6.2 years after registration; salvage surgery with RT achieved complete response in one, progression with chemotherapy in two, and one death was recorded.

Conclusion: Our patients were younger than registry cohorts (median 42 versus a mean of 57 years), with female predominance. Late recurrences up to six years and frequent defaults support multimodality management and surveillance beyond five years.

ABS-053

A Prospective Study to Compare Radiotherapy Versus Chemotherapy in Palliative Treatment of Unresectable Gallbladder Cancer

Utkarsha Singh*, Tabassum Samani, Deepshikha Narain
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Senior Resident, Email: utkarsha11.singh@gmail.com

Introduction: Advanced gallbladder cancer is often unresectable and has a poor prognosis. Palliative chemotherapy may provide limited survival benefits and cause significant toxicity. Radiotherapy is a shorter treatment option that may improve symptoms and quality of life with fewer side effects. However, evidence regarding its role in advanced gallbladder cancer remains limited.

Objectives: To compare quality of life, treatment-related toxicities, and tumor response between radiotherapy and chemotherapy in patients with unresectable gallbladder cancer.

Methods: Patients fulfilling the inclusion and exclusion criteria were included and divided into two groups. Arm A received radiotherapy (30 Gy in 10 fractions over 2 weeks), planned using CT simulation. Arm B received gemcitabine (1000 mg/m² on days 1 and 8) and cisplatin (75 mg/m² on day 1) every 21 days for six cycles. Quality of life was assessed using the EORTC QLQ-C30 and QLQ-BIL21 questionnaires. Tumor response was evaluated using RECIST 1.1, and toxicities were graded according to CTCAE version 5. Statistical analysis was performed using SPSS version 28, with $p<0.05$ considered statistically significant.

Results: The post-treatment quality-of-life score was 55.11±15.3 in Arm A and 62.10±3.21 in Arm B, with no statistically significant difference ($p=0.06$). Tumor response was observed in 11 (50%) patients receiving radiotherapy and 13 (59.09%) receiving chemotherapy. Nausea, vomiting, diarrhea, anemia, leukocytopenia, and thrombocytopenia were more common in the chemotherapy group. Three patients in the radiotherapy group developed cholangitis, while none did in the chemotherapy group.

Conclusion: Radiotherapy showed quality-of-life outcomes and tumor response comparable to chemotherapy, with fewer treatment-related toxicities overall and a shorter treatment duration of two weeks. It may be considered a useful palliative treatment option for unresectable gallbladder cancer.

ABS-054

Suburethral Deposit in Locally Advanced Carcinoma Cervix: An Unusual Pattern of Spread with Complete Metabolic Response

Divya Hasija*; Ajeet Kumar. Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava

Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh

*Junior Resident, Email: divyahasija909@gmail.com

Introduction: Suburethral involvement is an uncommon pattern of disease spread in carcinoma cervix, with limited cases reported in the literature. We present a rare case of locally advanced squamous cell carcinoma of the cervix with lower vaginal suburethral deposit demonstrating complete metabolic response following definitive treatment.

Aims & Objectives: To highlight an unusual pattern of suburethral involvement in locally advanced carcinoma cervix and describe the clinical and radiological outcome following definitive treatment.

Materials & Methods: A 55-year-old woman presented in December 2025 with per-vaginal bleeding and lower abdominal pain, on and off for 3 months. Evaluation revealed squamous cell carcinoma of the cervix, FIGO stage IIIB (cT3bN0M0), with a clinically evident suburethral deposit. Pretreatment contrast-enhanced MRI pelvis dated 30/12/25 demonstrated a cervical mass measuring approximately 2.8 × 4.9 × 4.7 cm, with parametrial involvement and an additional 3.2 × 1.6 cm lesion involving the lower vagina/anterior vulval region, corresponding clinically to the suburethral deposit. She received definitive concurrent chemoradiation with 40 Gy in 16 fractions external beam radiotherapy (EBRT) by VMAT and three cycles of concurrent cisplatin from 23/01/26 to 17/02/26, followed by interstitial brachytherapy (ISBT) at 7 Gy × 4 fractions, completed on 12/03/2026.

Results: MRI pelvis dated 06/03/2026, following EBRT and prior to ISBT, demonstrated marked reduction of the primary cervical lesion, with residual disease measuring approximately 15.6 × 21.9 × 19 mm. Following completion of definitive treatment, PET-CT dated 01/06/2026 showed no metabolically active disease. At approximately 6 months of follow-up, the patient remains asymptomatic with no current complaints.

Conclusion: Suburethral deposits represent a rare pattern of disease spread in carcinoma cervix. Definitive chemoradiation followed by brachytherapy achieved complete metabolic response and favorable clinical outcome at 6-month follow-up.

ABS-055

Shortening Overall Treatment Time in Cervical Cancer: A Randomized Comparison of Twice-Weekly versus Once-Weekly HDR Intracavitary Brachytherapy

Sonali Gupta*, K Srivastava, R Gupta
Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow, Uttar Pradesh
*Senior Resident, Email: Sonaligupta0023@gmail.com

Introduction: Prolonged overall treatment time (OTT) worsens outcomes in locally advanced cervical cancer through accelerated tumour repopulation. Twice-weekly HDR brachytherapy may shorten OTT compared to the conventional once-weekly schedule.

Aims & Objectives: To compare twice-weekly versus once-weekly HDR intracavitary brachytherapy in locally advanced carcinoma cervix in terms of OTT, treatment response, 1-year disease-free survival (DFS), and acute and late toxicity.

Materials & Methods: 220 previously untreated patients with FIGO stage IB3–IVA (excluding IIIC2) carcinoma cervix were randomized 1:1. All received pelvic EBRT (50 Gy/25 fractions) with weekly concurrent cisplatin (40 mg/m²). Arm A (n = 110) received HDR brachytherapy of 5.7 Gy × 4 fractions twice weekly; Arm B (n = 110) received 7 Gy × 3 fractions once weekly. Toxicity was graded by RTOG criteria, response at 3 months by RECIST, and 1-year DFS was assessed.

Results: Baseline characteristics were comparable between arms. Total EQD2 was equivalent (79.76 vs 79.84 Gy; $p > 0.4$). Mean OTT was significantly shorter in Arm A (47.55 vs 57.45 days; $p < 0.001$). Complete response at 3 months was 95.5% vs 86.4% ($p = 0.035$), and 1-year DFS was 90.0% vs 77.3% ($p = 0.018$), both favouring Arm A. Grade 3 acute genitourinary toxicity was numerically higher in Arm A (15 vs 5; $p = 0.059$). Late grade 3 genitourinary (3 vs 6) and gastrointestinal (4 vs 7) toxicities did not differ significantly, and no grade 4 events occurred.

Conclusion: At equivalent biological dose, twice-weekly HDR brachytherapy shortened OTT by about 10 days and improved complete response and 1-year DFS, with a modest, manageable rise in acute toxicity and no increase in late toxicity. It is an effective, pragmatic option, particularly for resource-limited, high-volume centres.

ABS-056

A Prospective comparison of Induction Chemotherapy and chemo-radiation with chemo-radiation alone in advanced cervical cancer

Jnanaranjan Biswal*, Ritusha Mishra, Himanshu Mishra, Pamela Sen, Shubham Lahane, Amar Yadav, Abhijit Mandal, Shikha Sachan
Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
*Junior Resident, Email: Kanha878551@gmail.com

Introduction: Concurrent chemoradiation (CRT) followed by brachytherapy is the standard treatment for locally advanced cervical cancer. Induction chemotherapy (NACT) before CRT may improve tumour response and provide early systemic treatment.

Aims & Objectives: To compare the efficacy and toxicity of induction chemotherapy prior to chemoradiation compared to chemoradiation alone in locally advanced cervical cancer. Primary endpoints were locoregional control (LRC) and acute toxicity. Secondary endpoints were disease-free survival (DFS), overall survival (OS), late adverse events, and quality of life.

Materials & Methods: This prospective randomized study included 24 patients with histologically proven FIGO 2018 stage IB3–IVA cervical cancer. Patients were randomized equally into Arm A (NACT followed by CRT) and Arm B (CRT alone). Arm A received two cycles of paclitaxel and carboplatin followed by pelvic external beam radiotherapy with weekly cisplatin and brachytherapy. Arm B received CRT with weekly cisplatin followed by brachytherapy. Tumour response, acute and late toxicities, and disease status during follow-up were assessed.

Results: Twelve patients were included in each arm. At 3 months, complete response was observed in 12/12 (100%) patients in Arm A and 11/12 (91.7%) in Arm B, with partial response in 1 patient (8.3%) in Arm B. Grade ≥2 acute toxicity occurred in 2/12 (16.7%) patients in Arm A versus 4/12 (33.3%) in Arm B (Fisher's exact test, p=0.64). Grade 3 toxicity occurred in 1 patient (8.3%) in each arm. Late grade 1 skin toxicity occurred in 1/12 (8.3%) versus 2/12 (16.7%) patients, respectively. No grade ≥2 late gastrointestinal or genitourinary toxicity was observed. No recurrence or death was documented during available follow-up.

Conclusion: NACT followed by CRT showed a higher numerical complete response rate and fewer grade ≥2 acute toxicities compared with CRT alone. However, no statistically significant difference was observed, and the small sample size and limited follow-up preclude definitive conclusions regarding LRC, DFS, and OS.

ABS-057

Analysis of feasibility & Tolerability of Hypo fractionated Radiotherapy in Carcinoma Urinary Bladder Treated with Radical intent: A Preliminary case series Analysis

Saket Agrawal*, Nitin Kumar, Treshita Dey, Shaleen Kumar, Senthil Kumar
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, Email: saketagrawal1519@gmail.com

Introduction: Choudhury et al., using individual patient data from the BC2001 and BCON trials, reported comparable long-term outcomes and toxicity with hypofractionation (55 Gy in 20 fractions) as compared to Conventional radiotherapy (64 Gy in 32 fractions).

Aims & Objectives: To assess acute genitourinary, gastrointestinal, and hematological toxicity and treatment completion with 55 Gy in 20 fractions combined with concurrent chemotherapy.

Materials & Methods: Five patients of Urothelial carcinoma of Urinary bladder treated with Radical intent with Hypofractionated radiotherapy to 55 Gy in 20 fractions over 4 weeks with IMRT/VMAT technique. Eligible patients received concurrent chemotherapy also. Acute toxicities were defined as treatment-related toxicities during and up to 6 weeks after completion & graded using CTCAE v5.0.

Results: Mean age was 58 years (Range 39– 86 years); all patients were male, 3 Patients were non-metastatic MIBC & two patients were oligometastatic (Had completed remission at metastatic site after Gemcitabine-Cisplatin-based chemotherapy). All five patients completed treatment without interruption, and treatment was completed as scheduled. Four patients received concurrent chemotherapy in form of weekly Cisplatin or Gemcitabine in 3 & 1 patients respectively, while one patient was not fit for concurrent chemotherapy. GU toxicity was Grade 1 in 2 (40%) and Grade 2 in 3 (60%) patients. GI toxicity was Grade 1 in 1 (20%) and Grade 2 in 4 (80%) patients. Hematological toxicity was Grade 1 in all 5 (100%) patients. No Grade ≥3 GU, GI, or hematological toxicity was observed.

Conclusion: In this small preliminary cohort, 55 Gy in 20 fractions with or without concurrent chemotherapy was well tolerated, with treatment completion rate of 100%, and no acute Grade ≥3 acute toxicities were observed. Small sample size and absence of camparison arm is a limitation.

ABS-058

Pattern of Care and Clinical Outcome of Locally Advanced Cervical Cancer Treated with Induction Chemotherapy Followed by Concurrent Chemoradiotherapy and Brachytherapy

Saumya Kumari*, Ajeet. Kumar. Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava

Department Of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh

*Junior Resident, Email: saumyariya0809@gmail.com

Introduction: Following INTERLACE trial, induction chemotherapy followed by definitive concurrent chemoradiotherapy (IC-CTRT) is one of standards of care for locally advanced cervical cancer (LACC). Real world outcome of IC-CTRT limited.

Aims and objectives: We retrospectively evaluated pattern of care, treatment characteristics, toxicities, clinical outcomes of LACC treated with IC-CRT followed by brachytherapy (BT) at our centre.

Material/Methods: Clinical records of 109 patients (2019-2025) LACC treated was retrieved. 86 patients treated with Paclitaxel/carboplatin (PC) regimen analyzed. Baseline demographic, disease characteristics, NACT regimen, number of cycles, external beam radiotherapy (EBRT), dose, concurrent chemotherapy, BT dose schedule, treatment interruptions, acute toxicity, treatment response, disease failure analyzed.

Results: Median age 53 years (range, 29–72 years). 96.5% (83/86) patients had SCC. FIGO 2018 I B2 (1.2%), IIA/IIB predominantly IIB (33/86, 38.4%), IIIA (1.2%), IIIB (5.8%), IIIC1 (35/86, 40.7%), IIIC2 (7.0%) IVA (5.8%). Patients received PC based NACT (62 received weekly, 24 patients received 3 weekly). Median number NACT cycles for 3 weekly regimen - 2 (range 2-3), weekly- 4 (range, 1–6). EBRT by 3D-CRT (91.9%), 7 patients (8.1%) IMRT. Used doses 50 Gy (44/86, 51.2%) 45 Gy (35/86, 40.7%). Concurrent cisplatin in 84 patients, with median 4 cycles (range, 1–6) ,5 cycles - 25 patients (29.7%). BT completed in 85 patients. Dose 7 Gy /3# (49%),7 Gy /4# (32.9%), 16.3% received others. Overall median radiation treatment time - 59.5 days. Median follow up time -22.6 months. 19 (22.3%) failed (distant 11, regional 4, local 4). Grade ≥3 anemia in 12.7 %, 38.3% (33/86) required blood transfusion during entire treatment. Acute toxicity predominantly grade 1–2. Late Grade 2 rectal toxicity in 9/86 (10.4 %).

Conclusion: Retrospective cohort of 86 patients with LACC treated with IC-CTRT, predominant pattern of failure was distant highlighting need for effective systemic therapy in LACC.

ABS-059

Breast Cancer in Women Under 50 Versus Older Women: A Real -World Comparison of Clinicopathological Characteristics and Treatment Outcomes

Maya-i-ka Marbanian*, Mohsin Khan, Mohd. Shadab Alam, Rohit Jakha
Department Of Radiation Oncology, Jawaharlal Nehru Medical College Hospital, Aligarh Muslim University, Aligarh, Uttar Pradesh
*Junior Resident, Email: mayaikamarbaniang@gmail.com

Introduction: Breast cancer in younger women represents an important clinical subgroup and may be associated with distinct tumour biology, stage at presentation, and treatment outcomes. Recent real-world data have highlighted the clinicopathological characteristics and treatment outcomes of women diagnosed with breast cancer before 50 years of age. Comparative data between younger and older women in routine clinical practice remain limited.

Aims & Objectives: To compare clinicopathological characteristics, molecular subtype, and treatment outcomes between women with breast cancer aged <50 years and ≥50 years in a real-world cohort.

Materials & Methods: This retrospective cohort included 150 women with breast cancer: 85 aged <50 years and 65 aged ≥50 years. Stage, molecular subtype, baseline metastatic disease, treatment response, and tumour-size reduction were evaluated. Molecular subtypes were categorized as triple-negative breast cancer (TNBC), HER2-positive, and hormone receptor-positive/HER2-negative disease. Objective response rate (ORR) was defined as complete response plus partial response. Patients lost to follow-up were excluded from response analysis. Tumour reduction was calculated using the longest recorded pre- and post-treatment dimensions. Categorical variables were analysed using Chi-square/Fisher's exact tests and continuous variables using the Mann–Whitney U test.

Results: Median age was 40 versus 55 years. Stage III disease predominated in both groups (54.1% vs 60.0%), followed by stage II (28.2% vs 18.5%) and stage IV (17.6% vs 18.5%), with comparable stage distribution (p=0.229). Molecular subtype distribution was similar: TNBC (29.4% vs 27.7%), HER2-positive (41.2% vs 40.0%), and hormone receptor-positive/HER2-negative (29.4% vs 32.3%) (p=0.927). ORR was 85.4% (70/82) versus 75.4% (43/57) (p=0.209). Median tumour reduction was 50% in both groups (p=0.481). Baseline metastatic disease was comparable (p=0.757). Among manually adjudicated pathological response cases, pCR was documented in 76.2% versus 60.0% (p=0.437).

Conclusion: Women aged <50 and ≥50 years demonstrated broadly comparable stage and molecular subtype distributions. Younger women showed numerically higher treatment response and pCR proportions, although differences were not statistically significant. Larger real-world cohorts with standardized pathological response assessment are warranted.

ABS-060

Clinical Outcomes of Carcinoma Cervix with Inadvertent Hysterectomy treated with Radiotherapy with or without Chemotherapy: A Retrospective Study

Mantasha Layeeq*, Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, Email: mantashalayeeq15@gmail.com

Introduction: Cervical cancer remains major health burden in India, with many patients presenting with locally advanced disease. Inadvertent/Incomplete hysterectomy (IN-H) performed without preoperative diagnosis or adequate staging poses therapeutic challenge, particularly with residual or nodal disease. We evaluated outcomes of such patients treated definitively with radiotherapy with or without chemotherapy.

Aims & Objectives: To retrospectively evaluate clinical characteristics, treatment response, toxicities, and survival outcomes in patients with carcinoma cervix after IN-H.

Materials & Methods: We retrospectively analysed 93 histologically proven carcinoma cervix patients who underwent IN-H (January 2022–December 2025) and received definitive radiotherapy with or without chemotherapy, excluding planned hysterectomies and incomplete records. Demographic, clinical, pathological, imaging, treatment, toxicity, and follow-up data were retrieved, and treatment response, recurrence, disease status, and survival outcomes were analysed.

Results: The median age was 48 years (range 33–73), and 66 (71.0%) patients had KPS 90. Squamous cell carcinoma predominated (n=76, 81.7%). Pathological pT stage was available in 27 patients (pT1: 22, pT2: 5), while pN stage was available in 4 (pN0: 2, pN1: 2). Margins were reported in 17 (19%), with 8 (47%) positive; parametrial status was available in 9 (10%), with involvement in 2 (22%). Median EBRT dose was 50 Gy (45–55 Gy), and concurrent weekly cisplatin (40 mg/m²) was given to 88 (94.6%) patients. IVBT was received by 73 and ISBT by 20 patients, with a median brachytherapy dose of 8 Gy/fraction for 2 fractions. Among 91 evaluable patients, 80 (87.9%) achieved complete and 11 (12.1%) partial response after completion of brachytherapy. Distant progression occurred in 10 (10.8%) and vault recurrence in 5 (5.4%) patients; 15 (16.1%) died. Acute grade ≥2 GI/GU toxicity occurred in 9 (9.7%)/4 (4.3%), while late rectal/GU toxicity was 2.2%/1.1%. At a median follow-up of 18.5 months, estimated 3-year OS and DFS were 67.7% and 62.6%, respectively.

Conclusion: Definitive concurrent chemoradiotherapy followed by brachytherapy in patients of carcinoma cervix who underwent IN-H yielded decent survival outcome with acceptable toxicities. Further follow-up of these patients would yield long-term clinical outcome and also late toxicities.

ABS-061

Plasmacytoid Myoepithelioma Presenting as Parotid Gland Mass with Multiple Intracranial & Systemic Metastases: A Case Report

Vaishnav Tripathi[*], Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Junior Resident, Email: itsvaishnavtripathi283@gmail.com

Introduction: Malignant salivary gland tumours are uncommon and comprise heterogeneous group of neoplasms with variable metastatic potential. Distant metastases occur in approximately 15–20% of salivary gland carcinomas, whereas intracranial metastases are distinctly uncommon.

Aims and Objectives: To describe rare case of Plasmacytoid myoepithelioma presenting as parotid gland mass with widespread systemic and multiple intracranial metastases, highlighting the diagnostic challenges and role of multimodal evaluation.

Materials and Methods: A 37-year-old female presenting with a right preauricular swelling and headache was evaluated with ultrasonography, FNAC, core biopsy, immunohistochemistry, and FDG PET-CT. Histopathological and immunohistochemical findings were correlated with imaging findings to establish diagnosis and assess the extent of disease.

Results: Ultrasonography revealed 21×17×12 mm right parotid lesion with hepatic lesions. FNAC and core biopsy demonstrated malignant plasmacytoid epithelial neoplasm. Immunohistochemistry showed diffuse CK7 positivity, while p63, p40, GFAP, S100, SOX10, CK20, mammaglobin, GATA3, WT1, and TTF-1 were negative, with a Ki-67 proliferation index of 20–25%. FDG PET-CT demonstrated extensive metastatic disease involving the bilateral cerebral and cerebellar hemispheres, right lung/hilar region, mediastinal and hilar lymph nodes, liver, pancreas, bilateral adrenal glands, and right parotid/intraparotid region. Palliative whole-brain radiotherapy was delivered to 30 Gy in 10 fractions for symptomatic intracranial metastases.

Conclusion: Unclassified epithelial neoplasms presenting as parotid mass with widespread systemic and intracranial metastases are uncommon and diagnostically challenging. Integration of histopathology, immunohistochemistry, and whole-body imaging is essential for diagnostic evaluation. In symptomatic multiple brain metastases, palliative radiotherapy remains an important component of multidisciplinary management.

ABS-062

Can Nano-curcumin Improve the Speech and Swallow Functions of Head and Neck Cancer Patients Undergoing Concurrent Chemoradiation?

Arshida. P*, Arshida.P, Mohsin Khan, Bilal Hussain, Jaskaran Singh Sethi, Shaifali Mahajan, Honey Sharma, Richa Garg, Nikita Singh
Rajiv Gandhi Cancer Institute and Research Centre, Delhi
*Senior Resident, Email: arshidapulimala@gmail.com

Introduction: People with head and neck malignancies (HNC) often report difficulty in speech and swallowing, either as a presenting symptom or as a side effect of cancer therapy. Radiation therapy, an organ preservation approach, may negatively affect speech and swallowing function, immediately or over time. We compared treatment outcomes, speech and swallow function before and after chemoradiation (CRT), and assessed whether curcumin supplementation affects these outcomes.

Materials and methods: This single-blinded randomized controlled trial included 70 patients with locally advanced head and neck cancer undergoing concurrent CRT. After inclusion and exclusion criteria, 64 patients were randomized: 32 (Arm A) received 1 g nano curcumin, and 32 (Arm B) received placebo, with concurrent cisplatin. Treatment outcome was assessed after 4-6 weeks of completion of CRT using contrast-enhanced CT scan (CECT). Speech and swallow function were assessed using the Voice Handicap Index (VHI-10) and Penetration-Aspiration Scale (PAS) on modified barium swallow.

Results: The overall response rate was 93.75 % in arm A compared to 81.25 % in arm B ($p=0.131$). Baseline VHI-10 (11.1 ± 6.0 vs 14.2 ± 8.0, $p = 0.091$) and PAS (median 3 [IQR 2-3] in both arms, $p = 1.000$) were comparable. In Arm A, mean VHI-10 changed by 0.5 ± 3.73 (11.1 to 11.6, $p = 0.454$); In Arm B, it increased by 3.03 ± 3.67 (14.2 to 17.2, $p < 0.001$). Median PAS change in Arm A was 0 (IQR −1 to 1; 3 to 3; $p = 1.000$); in Arm B it was 1 (IQR 0 to 1; 3 to 4), significant worsening ($p = 0.001$). Between-arm comparison showed significantly less deterioration in Arm A for both VHI-10 ($p = 0.008$) and PAS ($p = 0.006$).

Conclusion: Nano curcumin significantly attenuated CRT-induced decline in speech and swallow function in HNC patients compared to placebo, potentially improving patient compliance and quality of life.

ABS-063

Salvage Re-irradiation With EBRT and Intraluminal Brachytherapy for Recurrent Esophageal Cancer

Vaani Goel*
Department of Radiation Oncology, Subharti Medical College & Hospital, Meerut, Uttar Pradesh
*Resident, Email: vaanigoel2000@gmail.com

Introduction: Locoregionally advanced mid-thoracic esophageal squamous cell carcinoma was initially treated with external beam radiotherapy (EBRT) and chemotherapy. After one year, dysphagia recurred with biopsy-proven local recurrence. Salvage re-irradiation with hypofractionated EBRT followed by intraluminal radiotherapy (ILRT) brachytherapy was undertaken.

Aims & Objectives: To describe the presentation, prior treatment, salvage radiation technique, brachytherapy dosimetry, and findings in a patient with locally recurrent esophageal squamous cell carcinoma.

Materials & Methods: Male, age documented inconsistently as 69 and 71 years, initially presented with dysphagia. Biopsy showed moderately differentiated squamous cell carcinoma. Computed tomography demonstrated circumferential mid-thoracic esophageal thickening; positron emission tomography-computed tomography (PET-CT) showed an FDG-avid approximately 5-cm transmural lesion with luminal narrowing. Initial treatment was 41.4 Gy in 23 fractions by three-dimensional conformal radiotherapy (3D-CRT) with weekly paclitaxel and carboplatin. On recurrence, PET-CT showed increased esophageal activity (SUV_{max} 20.8); endoscopy showed mid-esophageal ulceration, and biopsy documented poorly differentiated squamous cell carcinoma. Salvage EBRT was delivered by 3D-CRT on a TrueBeam linear accelerator: 30 Gy in 12 fractions over 2.5 weeks. Concurrent chemotherapy: [MISSING: not documented]. ILRT used a Buggiee applicator under upper gastrointestinal endoscopy and C-arm guidance. Two sessions were planned; 5 Gy was prescribed at 8 mm from the source axis per session. CTV D90 was 4.0 Gy and 4.9 Gy.Overall treatment time 2 weeks.

Results: Endoscopy during brachytherapy showed a residual lesion at 26 cm, approximately 3 cm long, during one session, and a small ulceration suspicious for residual disease at 25 cm, approximately 2 cm long, during the other. Post-treatment response: partial response. Current follow-up status: monthly follow-up.

Conclusion: Salvage hypofractionated EBRT followed by ILRT was used for biopsy-proven local recurrence after prior chemoradiation. The case highlights endoscopic assessment during salvage re-irradiation.

ABS-064

Short-Course Radiotherapy versus Long-Course Chemoradiotherapy in View of Internal Anal Sphincter Preservation in Locally Advanced Lower Rectal Cancer

Yogesh Shera*, Kirti Srivastava, Naseem Akhtar, Adnan Akhtar
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: yogeshshera2@gmail.com

Introduction: Locally advanced lower rectal cancer presents a challenge for sphincter-preserving surgery because of the close relationship of the tumor to the anal sphincter complex. Neoadjuvant short-course radiotherapy (SCRT) and long-course chemoradiotherapy (LCRT) are established treatment approaches. This study compares both regimens with emphasis on internal anal sphincter preservation.

Aims and Objectives: To compare SCRT and LCRT regarding internal anal sphincter preservation, tumor response, pathological response, sphincter-preserving surgery, treatment toxicity, and postoperative outcomes.

Materials and Methods: This prospective comparative study will include patients with biopsy-proven locally advanced lower rectal adenocarcinoma. Patients will receive either SCRT (25 Gy in 5 fractions) or LCRT (50–50.4 Gy in 25–28 fractions with concurrent fluoropyrimidine-based chemotherapy), followed by restaging and surgery. Internal sphincter preservation will be assessed clinically, radiologically, and intraoperatively. Acute toxicity and pathological response will also be evaluated.

Results: A total of 60 patients were included, with 30 patients in each group. Internal anal sphincter preservation was achieved in 40 patients in the SCRT group versus 20 patients in the LCRT group. Tumor response, pathological complete response, sphincter-preserving surgery, toxicity, and postoperative outcomes were compared.

Conclusion: This study will evaluate whether SCRT provides comparable internal anal sphincter preservation and tumor response to LCRT, with the potential advantages of shorter treatment duration and reduced treatment burden.

ABS-065

Primary Breast Lymphoma: A Rare Presentation of High-Grade B-Cell Non-Hodgkin Lymphoma- A Case Report

Muskan Bhasin*, Partha Sarathi Sutradhar, Arindam Bhaumik, Partha Das Gupta, Jaichand L.
Department of Radiation Oncology, Agartala Government Medical College & Govind Ballabh Pant Hospital, Agartala, Tripura
*Junior Resident, Email: muskanbhasin99@gmail.com

Introduction: Primary breast lymphoma (PBL) is an exceptionally rare neoplasm with prevalence ranging from 0.04–0.7%. It constitutes less than 2% of extranodal non-Hodgkin lymphomas (NHLs) and under 0.1% of breast cancers. It can closely mimic primary breast carcinoma, often presenting as a painless, mobile lump. Diagnosing PBL is challenging, particularly when breast mass and regional adenopathy coexist. Diffuse large B-cell lymphoma is the most frequent histological subtype seen in breast. Diagnosis requires histopathological and immunohistochemical evaluation, while 18F-FDG PET/CT is essential for assessing disease extent. We present a rare case of multifocal primary breast lymphoma diagnosed as high-grade B-cell non-Hodgkin lymphoma.

Materials & Methods: A 55-year-old female presented with a six-month history of painless swelling in the right breast without any systemic symptoms. Examination revealed two mobile, non-tender lumps measuring 4 × 4 cm (upper outer quadrant) and 2 x 1 cm (lower inner quadrant), with clinically suspicious regional nodal involvement. Ultrasonography, mammography, HRCT thorax (before biopsy), and 18F-FDG PET/CT (after biopsy) were performed. HRCT thorax demonstrated two well-defined soft-tissue attenuating lesions in the right breast, largest measuring 4.01 × 3.61 cm. Mammography showed an irregular isodense mass with obscured margins and architectural distortion, categorized as BI-RADS 4C. Core biopsy revealed high-grade B-cell NHL. Immunohistochemistry showed diffuse positivity for CD20, MUM1, BCL2, and c-MYC, with Ki-67 approximately 70%. 18F-FDG PET/CT showed multifocal FDG-avid right breast masses, largest 3.5 × 4.7 cm (SUVmax 31.4), with FDG-avid right axillary level I–III lymph nodes. Left axillary nodes showed low-grade uptake and benign morphology. No other significant metabolically active lesion was identified.

Results: The patient received four cycles of R-CHOP. Interim CECT thorax demonstrated partial response with reduced disease burden (size 1.4 cm x 2.4 cm x 2.5 cm) compared with baseline PET. Current PET scan report awaited. After six cycles of chemotherapy, evaluat ion for radiotherapy planned.

Conclusion: PBL can mimic breast carcinoma clinically and radiologically. Multifocal or atypical breast masses warrant consideration of lymphoma. Histopathology with immunohistochemistry is essential for diagnosis, while 18F-FDG PET/CT aids staging and assessment of extra-mammary disease.

ABS-066

Pattern of Recurrence and Metastases in Post-Operative, Post-Chemoradiotherapy Patients of Locally Advanced Squamous Cell Carcinoma of Oral Cavity- A Retrospective Analysis

Tukadiya Rajkumar Naranbhai*, S uboohi Jafar, Neha Gupta, Ankita Patel, Gaurav Goswami, Naina Gupta, Aditya Shete, Sonashree Sahoo
Department of Radiation Oncology, Apex Super Speciality Hospital and Post Graduate Institute, Varanasi.
*Junior Resident, Email: rajtukadiya7073@gmail.com

Objective: Locally advanced Head and Neck cancer is the most common cancer in North-Eastern part. Even with the advent of chemo-radiotherapy, the loco-regional recurrence rates are high, so we retrospectively analysed the treatment results of locally advanced oral cavity cancer at our institute with the intent to define the prevalence and patterns of failure.

Materials and Methods: It is a retrospective study. We analysed 500 cases of post-operative locally advanced oral cavity cancer between January 2022 to December 2024, who took concurrent chemoradiotherapy treatment in our institute.

Results: Median follow-up was 24 months. Treatment failure after chemoradiotherapy at primary site, nodal site and distant metastases were 10-15 %, 10% and 30% respectively. Metastasis at extra-nodal sites was seen in lungs, followed by bone and brain.

Conclusion: Even after giving complete treatment consisting of surgery and radiotherapy with concurrent chemotherapy, the overall survival rate in locally advanced head and neck cancer is very low (<50%). Majority of failures were extranodal site/ distant metastases. It seems that some other strategy in the form of adjuvant chemotherapy can improve OS, PFS, DFS, and locoregional control.

ABS-067

Hirudotherapy as an Adjunctive Treatment for Pain and Edema in Cancer Patients: A Single-Arm Pilot Study

Faizan Khan[*], Mohd. Akram, Asiya Sultana,Alam Shadab, Mohsin Khan, Samreen Zaheer[2]
[1]Department of Radiation Oncology, Jawaharlal Nehru Medical College Hospital, Aligarh Muslim University, Aligarh, Uttar Pradesh
[2]Department of Ilaj Bit Tadbeer, Faculty of Unani Medicine, Aligarh Muslim University, Aligarh, Uttar Pradesh
[*]Junior Resident, Email: faizan.khan.fk0810@gmail.com

Introduction: Pain and edema cause significant morbidity in cancer patients. Medicinal leech therapy (hirudotherapy) utilizes salivary bioactive compounds like hirudin and hyaluronidase, offering analgesic and anti-edematous benefits. However, prospective clinical data in oncology remain limited.

Aims & Objectives: To evaluate the safety, preliminary efficacy in pain/edema control, quality of life, and tumor response of adjunctive hirudotherapy in cancer patients.

Materials & Methods: In this prospective single-arm pilot study at JNMCH, AMU, 15 adult cancer patients (ECOG ≤2) with moderate-to-severe pain (VAS ≥4) or localized edema were enrolled. Participants received standard palliative care combined with bi-weekly hirudotherapy (4–8 leeches per session) over an 8-week duration. Endpoints included VAS pain scores, edema circumference, EORTC QLQ-C30 scores, CECT tumor response, and adverse events graded by CTCAE v5.0 criteria, focusing on post-hirudotherapy bleeding, hypersensitivity, and infection risk.

Results: Of 15 enrolled patients, 5 were lost to follow-up. Effective pain and edema control was achieved in 80% (8/10) of evaluable patients, with mean VAS score decreasing from 6.8 ± 1.2 to 2.9 ± 0.9. EORTC QLQ-C30 scores showed variable, ECOG-dependent improvements. Radiographic evaluation was completed in 5 patients, showing no direct tumor response; however, the 8-week timeframe is relatively short to evaluate objective tumor response. The remaining 5 patients had incomplete imaging. Adverse events categorized by CTCAE v5.0 criteria demonstrated Grade 2 toxicity in 2 patients (prolonged localized bleeding and cutaneous hypersensitivity); all other patients experienced Grade 1 or less toxicity. No secondary infections occurred under prophylactic antibiotics.

Conclusion: Adjunctive hirudotherapy is a feasible, safe (mostly CTCAE v5.0 Grade ≤1) modality for cancer pain and edema. Although it produces no direct tumor response within this short 8-week duration, symptom relief is significant and QoL improvements correlate with baseline ECOG status.

ABS-068

Chemotherapy combined with low-dose immunotherapy in Neoadjuvant setting in locally advanced gastric carcinoma- A case series

Aditi Agrawal[1*], Sushma Agrawal[1], Ashish Singh[2]
Department of Radiotherapy[1], Department of Gastrosurgery[2], Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Resident, Email: aditiagrawal2510@gmail.com

Introduction: The prognosis of locally advanced gastric cancer is unfavourable, with high recurrence risk and poor long-term survival. Management includes an integrated approach of chemotherapy, targeted therapy/immunotherapy followed by surgery in responders. Chemoimmunotherapy has shown enhanced but administration of full-dose immunotherapy cannot be afforded by our patients; hence, low-dose immunotherapy is an alternate option. We report our short experience low dose chemo-immunotherapy in neoadjuvant setting.

Aims and Objectives: To evaluate low dose chemo-immunotherapy in neoadjuvant setting in overall response rate and surgical feasibility in advanced gastric cancer.

Materials and Methods: Seven patients of advanced gastric adenocarcinoma (n=6) and GEJ squamous cell carcinoma Siewert type II (n=1) with median age of 53 years, male: female ratio was 3:4, T2 (n=1), T3 (n=3), T4 (n=3) and N0 (n=2), N1 (n=1), N2 (n=2), N3a (n=1), N3b (n=1) have been recruited till now. Chemotherapy regimen included: CAPOX (n=1), FLOT (n=3), single-agent oxaliplatin (n=1), Paclitaxel and Carboplatin (n=2). Immunotherapy regimen included: Durvalumab 120 mg (n=1), Nivolumab 40 mg (n=3), and Serplulimab 100 mg (n=3).

Results: After neoadjuvant treatment, response assessment with CECT overall response rate of 100% (complete response [n=2] and partial response[n=5]). All patients became surgically resectable [n=4 underwent R0 resection, n=2 awaiting surgery]. Out of three resected cases, 1 achieved Pathological CR, while others were ypT2ypN0 and ypT3ypN0. Higher rates of post-operative nodal downstaging was noted. 3 patients had immunotherapy-related Grade 2 GI toxicity, which abated with conservative management.

Conclusion: Neoadjuvant low dose chemo-immunotherapy yields high ORR rate and high R0 resection rate in advanced gastric carcinoma. This strategy allows significant downstaging at lower cost with acceptable toxicity profile. The recruitment of further patients is ongoing, and further analysis will reveal full potential of this strategy.

ABS-069

Pilot feasibility dosimetric evaluation of Hybrid SIB radiotherapy technique in Carcinoma breast patients

Aditi Agrawal*, S.Indumaya, Shagun Misra, Punita Lal, SK Senthil Kumar
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Resident, Email: aditiagrawal2510@gmail.com

Introduction: Breast-conserving surgery followed by radiotherapy is standard treatment for stage I–II invasive breast carcinoma. RTOG 1005 evaluated accelerated simultaneous integrated boost (SIB), delivering 40 Gy in 15 fractions to whole breast with concurrent boost to 48 Gy in 15 fractions, to preserve tumor-bed dose escalation without extending treatment time.

Aims and Objectives: Dosimetric evaluation of proportion of breast cancer patients planned with hybrid 3DCRT FIF and VMAT boost (SIB) technique who achieve ideal and acceptable dose constraints for target coverage and organs at risk (OARs) as defined by RTOG.

Materials and Methods: This retrospective analysis was conducted in 10 patients, planned using hybrid SIB technique, and proportion meeting ideal and acceptable dose constraints by RTOG were evaluated for target and OARs, with separate heart constraints for left- and right-sided tumors. ≥70% achieved constraints were considered good. We included 7mm PTV around cavity as Lumpectomy target, while RTOG included cavity with 1 cm CTV and 7 mm PTV , responsible for difference in target volumes.

Results: In our study, dosimetric evaluation of Breast and lumpectomy target volumes showed 100% complaince for all acceptable dose constraints; however, ideal V_{95Gy} showed 40 % complaince. OARs constraints demonstrated 100% compliance for all contralateral lung parameters. All cardiac constraints showed 100% complaince in right-sided cases, while 83.33% complaince for mean heart dose, V_{16Gy}, and V_{20Gy} in left-sided cases. All ipsilateral lung dose constraints showed good complaince, except ideal V_{16Gy} (10% complaince). For contralateral breast, only 10% cases and 20 % cases met ideal and acceptable dose constraints, respectively.

Conclusion: The RTOG 1005 SIB regimen appears dosimetrically feasible for target and several OARs constraints but cannot be extrapolated to all whole-breast irradiation patients. Failure to satisfy 95% target dose coverage, contralateral breast, and high-dose constraints for ipsilateral lung support a tailored and individualized approach.

ABS-070

Primary Non-Hodgkin Lymphoma of the Uterine Cervix Masquerading as Metastatic Cervical Carcinoma: A Case Report

Ammar Ahmad[*], Mohsin Khan
Department of Radiation Oncology, Jawaharlal Nehru Medical College & Hospital, Aligarh Muslim University, Aligarh, Uttar Pradesh
[*]Junior Resident, Email: ammar611611ahmad@gmail.com

Introduction: Primary non-Hodgkin lymphoma (NHL) of the uterine cervix is a rare extranodal malignancy that can clinically and radiologically mimic carcinoma cervix, particularly in the presence of disseminated disease. Accurate diagnosis requires histopathological examination and immunohistochemical characterization. We present a case of cervical B-cell NHL masquerading as metastatic cervical carcinoma with rapid progression despite chemotherapy.

Aims & Objectives: To highlight the diagnostic challenge of differentiating primary cervical lymphoma from metastatic cervical carcinoma. To emphasize the role of cervical biopsy and immunohistochemistry in establishing the diagnosis. To describe the clinical course, treatment, and rapid progression of disseminated cervical NHL.

Materials & Methods: A case of a postmenopausal woman presenting with headache, vomiting, and generalized weakness was evaluated. Whole-body FDG PET-CT, contrast-enhanced MRI brain, and subsequent imaging were reviewed. Cervical biopsy was performed for histopathological diagnosis followed by immunohistochemical evaluation. The treatment course and clinical outcome were documented.

Results: Initial FDG PET-CT revealed an FDG-avid cervical mass with extensive abdominopelvic, retroperitoneal, renal, and peritoneal metastases. Cervical biopsy and immunohistochemistry (CD20+, CD3+) confirmed non-Hodgkin lymphoma (NHL). Brain MRI subsequently demonstrated dural and left cavernous sinus involvement with trigeminal neuropathy. Due to financial constraints, the patient received CHOP instead of R-CHOP. Following two cycles, she developed right hemiparesis, with head CT revealing frontal-parietal hypodensities. Repeat PET-CT confirmed rapid multi-organ progression involving the uterus, adnexa, pleura, liver, adrenal gland, and parietal bone. Salvage R-ICE was planned, but the patient succumbed prior to treatment.

Conclusion: Primary cervical NHL is a rare entity that may closely mimic metastatic cervical carcinoma. Early tissue diagnosis with appropriate immunohistochemistry is essential for accurate diagnosis and timely systemic therapy. This case highlights the aggressive nature of disseminated cervical lymphoma and the potential impact of treatment accessibility on clinical outcomes.

ABS-071

Low-Grade Myofibroblastic Sarcoma of the Breast: A Case Report

Adhyan Shakya*. Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop Kumar Srivastava
Department Of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow
*Junior Resident, Email: adhyan.shakya123@gmail.com

Introduction: Low-grade myofibroblastic sarcoma is rare spindle-cell neoplasm with myofibroblastic differentiation. Primary breast involvement is extremely uncommon and may mimic benign and malignant fibroepithelial breast neoplasms, creating diagnostic challenge.

Aims and Objectives: To describe rare case of low-grade myofibroblastic sarcoma of breast, highlighting diagnostic dilemma, characteristic histopathological and immunohistochemical findings, and multidisciplinary management, including adjuvant radiotherapy.

Materials and Methods: A 31-year-old female with recurrent left breast lump following previous excision was evaluated with ultrasonography, biopsy, modified radical mastectomy, histopathology, and immunohistochemistry. Imaging findings were correlated with pathological findings to establish diagnosis and assess local and nodal disease.

Results: Initial ultrasonography showed 4.8×5.3cm hypoechoic lesion, considered fibroadenoma. Biopsy suggested malignant phyllodes tumour. Subsequent imaging demonstrated progressive multifocal disease, with largest lesion measuring 8.7 ×9×8.3cm. Modified radical mastectomy revealed 9×9×8cm infiltrative tumour with clear margins. Histopathology showed spindle cells in bundles and fascicles, moderate pleomorphism, 10–15 mitoses/10 HPF, and necrosis. Lymphovascular and perineural invasion were absent (pT2N0). IHC showed BSB-15 and vimentin positivity; ER, PR, TLE1, SMA, S100, desmin, Pan-CK, and CD34 negative. Ki-67 was 10–20%. Following multidisciplinary tumour-board discussion, adjuvant chest-wall radiotherapy was delivered to 40Gy/15#, completed with Grade I skin toxicity. At 3-month follow-up, a 3×2cm palpable left infraclavicular swelling was noted, and further evaluation was planned.

Conclusion: Breast LGMS is a rare and diagnostically challenging entity that may mimic fibroadenoma radiologically and malignant phyllodes tumour histologically. Integration of morphology and immunohistochemistry is essential for diagnosis. Multidisciplinary management is important in large tumours with adverse pathological features and significant tumour burden.

ABS-072

Maintenance capecitabine after consolidation chemoradiation in unresectable gallbladder cancer (GBC): a pilot study

Gaurav Kumar Mallick*, Sushma Agrawal
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Resident, Email: gauravm378@gmail.com

Introduction: Cisplatin plus gemcitabine remains the standard CT in unresectable GBC, and consolidation chemoradiotherapy (CTRT) after four cycles of CT has been found to double median overall survival from 7 months to 13 months. But soon, these patients start progressing.

Aims & Objectives: To evaluate the efficacy and tolerability of maintenance capecitabine following consolidation chemoradiotherapy in fit patients with unresectable gallbladder cancer.

Materials and methods: Patients with unresectable GBC were initiated on induction chemotherapy [NACT], and after 4 cycles, response assessment with CT angiography and PET-CT. Those who were still unresectable were treated with consolidation CTRT (45Gy/25#/5 weeks) to GBC and LN and a 9 Gy boost to GBC. Thereafter, patients who were still unresectable were kept on maintenance capecitabine@2 gm/m2, q 3 weekly until disease progression or intolerance.

Results: Twelve patients were recruited. Median age was 51 years, M: F ratio was 2:1, 18% had co-morbidity, 50% underwent stenting. Fifty percent of patients had T3, 42% had T4, and 8% was T2; 8% were N0, 33% were N1, N2, and rest had para-aortic lymph nodes (LN) at presentation. After NACT, response assessment by RECIST criteria in primary revealed 8% CR, 75% PR, and 17% SD, while that in the LN was 25% CR, 67% PR, and 8% SD. After Consolidation CTRT, primary showed CR in 25%, PR in 58%, and PD in 17%. A median of 5 cycles of maintenance capecitabine was given, which was well tolerated. At a median FU of 20 months, the median PFS was 14 months, and the median OS was 20 months.

Conclusions: In this pilot study, maintenance capecitabine after consolidation CTRT resulted in prolongation of PFS by 4 months and OS by 7 months in fit patients (as compared to the RACE-GB data).

ABS-073

Accelerated versus Conventionally Fractionated Radiotherapy in Locally Advanced Cervical Cancer: A Prospective Randomized Study

S Sachin*, Sunil Choudhary, Lalit Mohan Aggarwal, A Verma, A. S Agarwal
Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
*Senior Resident, Email: sachinsdpi98@gmail.com

Introduction: Prolongation of overall treatment time (OTT) compromises locoregional control in cervical cancer due to accelerated tumor repopulation. Pure accelerated radiotherapy (ART) delivered six fractions per week can counteract repopulation and shorten overall duration.

Aims & Objectives: To evaluate and compare ART against conventionally fractionated radiotherapy (CRT) regarding locoregional control (LRC), acute/late toxicities, quality of life (QoL), and survival outcomes.

Materials & Methods: In this prospective randomized study (March 2023–October 2024), 45 patients with cervical cancer (FIGO 2018 stages IB3–IVA) were randomized to either CRT (n = 25; 45 Gy in 25 fractions, 5 fractions/week over 5 weeks) or ART (n = 20; 45 Gy in 25 fractions, 6 fractions/week over 4.2 weeks), both planned with volumetric modulated arc therapy (VMAT) with concurrent weekly cisplatin (40 mg/m²). Nodal boost (55 Gy) utilized simultaneous integrated boost (SIB). High-dose-rate brachytherapy (HDR-BT) delivered 28 Gy in 4 fractions. Toxicities were graded per RTOG criteria; QoL was assessed via EORTC QLQ-C30 and QLQ-CX24.

Results: Median follow-up was 9.95 months. OTT was shorter in the ART arm compared to CRT (mean 8.00 vs. 9.23 weeks; p = 0.187), with fewer patients exceeding 8 weeks (31.6% vs. 62.5%). Complete response rates were 96% (CRT) and 90% (ART). One-year overall survival was 96% versus 89% (p = 0.099), and cause-specific survival was comparable (96% vs. 100%; p = 0.488). Grade 2 acute gastrointestinal (60% vs. 28%; p = 0.031) and genitourinary (40% vs. 4%; p = 0.010) toxicities were significantly higher in the ART arm. Grade 2 late rectal toxicity was also increased (20% vs. 4%; p = 0.022). Post-treatment global QoL improved significantly from baseline in both groups, showing no statistically significant inter-arm difference (p = 0.890).

Conclusion: Pure accelerated radiotherapy achieves comparable locoregional control and cause-specific survival while reducing overall treatment time; however, it produces significantly higher manageable acute gastrointestinal and genitourinary toxicities.

ABS-074

Digital Acrometastasis from Squamous Cell Carcinoma of the Cervix: Digit-Preserving Palliation with Mould Interstitial Brachytherapy

Aditya Ambesh*, Ajeet Kumar Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Shantanu Sapru, Anoop Kumar Srivastava, A Gupta, S Shukla
Department Of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow
*Senior Resident, Email: aaditya.ambesh@gmail.com

Introduction: Acral metastases - deposits distal to the elbow or knee - are rare: osseous acrometastases comprise approximately 0.1% of bony metastases, usually from pulmonary, gastrointestinal, or genitourinary primaries. Fewer than ten digital acrometastases from cervical carcinoma are reported.

Aims & Objectives: To report a digital acrometastasis from cervical squamous cell carcinoma (SCC) and assess mould interstitial brachytherapy (ISBT) as a digit-preserving alternative to amputation.

Materials & Methods: A woman in her late 30s with cervical SCC (FIGO 2018 stage IIIB) received chemoradiotherapy (45 Gy/25 fractions with weekly cisplatin) and image-guided intracavitary brachytherapy (4 × 7 Gy to the high-risk CTV). At three months, PET-CT showed bilateral pulmonary nodules; biopsy confirmed metastatic SCC (p40 positive, p16 negative). Six cycles of nab-paclitaxel, carboplatin, and bevacizumab gave a partial response. Twelve months after intracavitary brachytherapy, a painful 1 × 1 cm proliferative swelling over the proximal phalanx of the right fifth digit was confirmed cytologically as metastatic SCC. A patient-specific dental-wax mould with four high-dose-rate catheters at 10-mm spacing delivered 30 Gy in 10 twice-daily fractions over five days (5 mm prescription depth, iridium-192 afterloader).

Results: Digital pain fell by approximately 70% at treatment completion. The only local morbidity was pressure-induced cutaneous ischaemia beneath the mould, with no acute radiation-related skin toxicity. Eschar separation and near-complete re-epithelialisation occurred by ten weeks, with sustained resolution of the deposit. The digit remained free of local progression with preserved function until death. Systemic disease progressed despite second-line gemcitabine–cisplatin; the patient died one year after mould ISBT, overall survival approximately 2.5 years from diagnosis.

Conclusion: Digital acrometastasis is a rare, late manifestation of haematogenous spread in cervical SCC, readily mistaken for benign pathology. Mould ISBT achieved durable local palliation with digit preservation, and merits consideration before amputation where the deposit spares the underlying cortex.

ABS-075

Adjuvant concurrent chemoradiotherapy in postoperative buccal mucosa and gingivobuccal sulcus squamous cell carcinoma with multiple minor risk factors: a prospective single-arm study of disease-free survival and toxicity

Aditya Ambesh[*], Rahat Hadi, Madhup Rastogi, Rohini Khurana, Shantanu Sapru, Ajeet Kumar Gandhi, Anoop Kumar Srivastava, S. P. Mishra
Department Of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow
[*]Senior Resident, Email: aaditya.ambesh@gmail.com

Introduction: Positive margins and extranodal extension (ENE) are the only accepted indications for adjuvant concurrent chemoradiotherapy (CCRT) in oral cavity squamous cell carcinoma. Patients with multiple minor risk factors (MMRFs) alone remain at substantial recurrence risk, with inconclusive guidance.

Aims & Objectives: To evaluate disease-free survival (DFS) and toxicity in postoperative buccal mucosa (BM) or gingivobuccal sulcus (GBS) squamous cell carcinoma treated with CCRT for MMRFs.

Materials & Methods: Prospective single-arm study. Twenty postoperative BM/GBS patients with two or more of six predefined MMRFs were enrolled; positive margins and ENE were excluded. All received conformal radiotherapy 60–66 Gy/30–33 fractions with concurrent weekly cisplatin 40 mg/m². Toxicity used CTCAE v5.0 (acute) and RTOG (late) criteria. DFS, from surgery to first recurrence or death, was estimated by Kaplan–Meier method.

Results: Median age was 47 years (35–60), 95% male; sites BM 65%, GBS 35%; stage IVA 55%, III 30%, II 15%. Risk factors: pT3/pT4 65%, DOI >10 mm 40%, LVI 40%, deep bone involvement 25%, PNI 20%, ≥2 positive nodes 10%; close margins 35%. All completed treatment (median 60 Gy, 6 cisplatin cycles). Maximum acute toxicity: grade 3 mucositis 55%, dysphagia 15%; grade 2 oral pain 70%, dermatitis 20%. No grade 4 toxicity or treatment-related death occurred; all acute toxicity resolved within three months. At six months (n=19), grade 1 xerostomia 73.7%, grade 2 neck fibrosis 5.2%. At median follow-up 15.05 months, two patients (10%) developed locoregional recurrence, one of whom died of progression; one further patient died of unrelated causes. Seventeen (85%) remained disease-free; Kaplan–Meier DFS was 85%.

Conclusion: Adjuvant CCRT was completed by all patients, with 85% disease-free at median 15.05 months and transient, manageable toxicity. As a single-arm study with short follow-up, these data support feasibility rather than superiority over radiotherapy alone; randomised validation is needed.

ABS-076

Recurrent Ameloblastic Carcinoma of the Mandible: A Rare Diagnostic and Therapeutic Challenge

Kritika Mahajan*, Isha Jaiswal, Sunav Basu Biswas
Department of Radiotherapy and Radiation Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
*Senior Resident, Email: kritika26092001@gmail.com

Introduction: Ameloblastic carcinoma (AC) is an exceedingly rare and aggressive odontogenic malignancy, with a reported SEER incidence of 1.79 per 10 million person-years. Its rarity, histological variability, and locally destructive behaviour can result in diagnostic delays and pose significant therapeutic challenges.

Case Presentation: A 63-year-old male, chronic smoker and tobacco chewer, initially presented in 2020 with a painful, ulcerated lesion involving the anterior mandible and mobility of the lower central incisors. Following dental extraction and excision, histopathological examination was initially reported as pleomorphic adenoma. Over the subsequent five years, the lesion demonstrated multiple local recurrences with progressive destruction.

By 2026, CECT images showed a 5.3 × 4.5 cm destructive anterior mandibular mass with full-thickness bicortical perforation, without cervical lymphadenopathy. In February 2026, the patient underwent definitive anterior segmental mandibulectomy with bilatera1 modified radical neck dissection and pectoralis major myocutaneous flap reconstruction. Histopathology confirmed ameloblastic carcinoma with R0 resection and pathologically negative lymph nodes (pN0). Staging revealed no distant metastasis, and the disease was staged pT4aN0M0 (Stage IVA).

Considering the extensive local destruction, large tumor size, and history of repeated local recurrences, the patient received adjuvant VMAT to 60 Gy in 30 fractions @ 2Gy/#, 5# per week on 6MV Linear Accelerator in August 2026. After that, the patient is on regular follow-up with no evidence of disease.

Conclusion: This case highlights the diagnostic and therapeutic challenges associated with recurrent ameloblastic carcinoma. The extensive local destruction and recurrent nature of the disease supported the use of adjuvant radiotherapy despite the absence of nodal disease. Given the rarity and potential for aggressive local behaviour and recurrence, early diagnosis, adequate surgical resection, individualized consideration of adjuvant radiotherapy, and long-term surveillance are essential.

ABS-077

When Biology Meets Disease Burden: Association of Receptor Phenotype with Stage at Presentation in Breast Cancer

Megha*
Department of Radiotherapy, King George's Medical University, Lucknow, Uttar Pradesh
*Junior Resident, Email: jankimegha@gmail.com

Introduction: Breast cancer stage at presentation remains a major determinant of treatment intensity and outcome. Whether the burden of advanced disease differs across receptor-defined phenotypes in real-world practice warrants evaluation.

Aims and Objectives: To determine the distribution of breast cancer receptor phenotypes and assess their association with stage at presentation.

Materials and Methods: This retrospective institutional audit included 619 breast cancer records from a 2023–2024 database. Oestrogen receptor, progesterone receptor, and human epidermal growth factor receptor 2 status were used to classify patients as hormone receptor-positive/HER2-negative, hormone receptor-positive/HER2-positive, hormone receptor-negative/HER2-positive, or triple-negative breast cancer. Stage I–II was categorized as early disease and stage III–IV as advanced disease. Patients with complete receptor and composite-stage information were included in the association analysis. Categorical variables were compared using the chi-square test, with $p<0.05$ considered statistically significant.

Results: Complete receptor information was available for 543/619 patients (87.7%). The most frequent phenotype was hormone receptor-positive/HER2-negative disease (210/543, 38.7%), followed by triple-negative breast cancer (182/543, 33.5%), hormone receptor-negative/HER2-positive disease (86/543, 15.8%), and hormone receptor-positive/HER2-positive disease (65/543, 12.0%). Both phenotype and composite-stage information were available for 384 patients. Overall, 251/384 patients (65.4%) presented with advanced disease. Advanced-stage presentation occurred in 80.0% of hormone receptor-positive/HER2-positive, 77.0% of hormone receptor-negative/HER2-positive, 61.9% of hormone receptor-positive/HER2-negative, and 58.8% of triple-negative cases. Receptor phenotype was significantly associated with stage at presentation ($p=0.011$). Median age did not differ significantly across phenotypes ($p=0.294$).

Conclusion: Advanced-stage breast cancer constituted nearly two-thirds of the evaluable cohort and was particularly frequent among HER2-positive phenotypes. These findings support earlier detection strategies and timely biomarker-guided referral, particularly for patients with HER2-positive disease.

ABS-078

Impact of Metal Artifact Reduction Technique in Pelvic Radiotherapy: A Comparison of Dose Calculation Algorithms

Anupama N V*, Sumanta Manna, Ragul T, Sushma Evangelin
Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow, Uttar Pradesh
*Medical Physics Resident, Email: anupamanv1998@gmail.com

Introduction: Metal artifact reduction (MAR) techniques such as O-MAR reduce artifacts but may alter CT numbers and dose calculation.

Aims & Objectives: This study evaluated the dosimetric impact of O-MAR and compared two dose calculation algorithms in pelvic radiotherapy.

Materials and Methods: An IMRT Pelvic 3D Phantom with a titanium metallic implant was scanned using a CT simulator (Philips: BigBore RT) with and without O-MAR reconstruction (Philips Healthcare System). An artifact-free reference dataset was also acquired. Identical treatment planning parameters were used for all datasets. VMAT plans were generated using two dose calculation algorithms. CT numbers in artifact-affected regions and corresponding dose distributions were evaluated. Dose volume parameters for the targets and organs at risk were evaluated, and monitor units were compared. Differences between the algorithms were assessed for conventional and O-MAR datasets. In addition, a retrospective analysis was performed on pelvic patient datasets with metallic implants with significant metal artifacts. O-MAR reconstructions were generated from the corresponding CT datasets using the same acquisition data.

Results: Conventional CT showed pronounced streaking artifacts and substantial CT-number variations around the metallic implant. O-MAR reduced visible artifacts and altered CT numbers in affected regions. Compared with the reference dataset, O-MAR shifted calculated dose distributions toward the reference condition in selected regions. However, agreement varied with the dose calculation algorithm and anatomical location.

Conclusion: Metallic implants can alter CT numbers and consequently influence radiotherapy dose calculation. O-MAR reduced metal-induced artifacts and produced measurable changes in dose distributions compared with conventional CT images. The dosimetric impact of MAR was algorithm-dependent, particularly near the metallic implant. Therefore, both CT reconstruction technique and dose calculation algorithm should be considered when evaluating pelvic radiotherapy plans in patients with metallic implants.

ABS-079

Dosimetric Evaluation of Simulated Setup Errors in Craniospinal Irradiation: A Comparative Study of VMAT and 3DCRT

Jesmi Sunny*, Senthil Kumar S K, Shagun Misra, Shaleen Kumar
Department of Radiotherapy, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow
* Medical Physics Resident, Email: jesmisunny99@gmail.com

Background: Craniospinal irradiation (CSI) requires accurate and reproducible patient positioning because of the large and anatomically extended treatment volume. Setup deviations may alter the planned dose distribution and potentially affect target coverage and organ-at-risk (OAR) doses. This study aim was to evaluate the dosimetric impact of simulated 3, 5, and 7 mm lateral and longitudinal setup errors in CSI plans using volumetric modulated arc therapy (VMAT) and three-dimensional conformal radiotherapy (3DCRT).

Materials and Methods: Treatment data from 10 patients who received craniospinal irradiation (CSI) between 2021 and 2026 were retrospectively analysed. Treatment plans were generated using the Monaco treatment planning system (version 5.11.03) with a 6-MV photon beam and delivered on an Elekta Versa HD linear accelerator equipped with the Agility 160 MLC. Different patient cohorts were treated using VMAT and 3DCRT. The original treatment plans were evaluated by introducing simulated setup errors of 3, 5, and 7 mm independently in the lateral and longitudinal directions. The resulting dose distributions were compared with the corresponding original plans. Target coverage and relevant dose-volume parameters, along with OAR dose parameters, were evaluated for both treatment techniques.

Results: With increasing simulated setup deviations, significant changes in the dose distribution were observed in both VMAT and 3DCRT plans. Despite the introduced setup errors, target coverage was maintained within the evaluated dosimetric criteria. However, an increase in dose to selected OARs was observed with increasing displacement, although the evaluated OAR dose parameters remained within clinically acceptable limits. The dosimetric changes were more evident with larger setup deviations of 7 mm compared with 3 and 5 mm. VMAT provided improved conformity in the respective patient group, while the observed dose variations with simulated shifts demonstrated the importance of maintaining accurate patient positioning with image guidance.

Conclusion: The simulated setup errors evaluated in this study did not compromise target coverage, although they resulted in increased OAR doses that remained within clinically acceptable limits. The findings emphasize the importance of accurate and reproducible patient positioning during CSI. Daily image guidance is valuable for detecting setup deviations and enabling correction before treatment delivery.

ABS-080

Comparative Assessment of Conventional CT and MIP-4DCT for Respiratory Motion Evaluation and 3DCRT Planning in Thoracic Tumors

Shubham Das[1*], Asita Kulshreshtha[1], Anoop Srivastava[2]
[1]Amity School of Applied Sciences, Amity University, Lucknow, [2]Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Ph.D. Scholar, Email: shubhdas17@gmail.com

Introduction: Accurate delineation of the tumor and organs at risk (OARs) is essential for effective and safe thoracic radiotherapy. Conventional CT inadequately represent respiratory-induced tumor and OAR motion. Four-dimensional CT (4DCT), particularly the Maximum Intensity Projection (MIP), can incorporate the full respiratory motion and thereby improve target volume assessment and treatment planning accuracy.

Aims & Objectives: To compare and evaluate conventional CT and MIP-based 4DCT for thoracic tumor, emphasizing accurate tumor localization, OAR sparing, planning parameters, and dose distribution using Three-Dimensional Conformal Radiotherapy (3DCRT).

Materials & Methods: Ten patients with thoracic tumors underwent conventional CT simulation and 4DCT simulation (Philips Big Bore RT). Tumor location and adjacent OARs were identified for respiratory-related motion. Treatment plans were generated using 3DCRT technique on the Treatment Planning System (TPS) (Elekta- Monaco 6.2.2.0). For the same cohort, MIP images derived from the 4DCT dataset were used for target and OAR delineation, followed by 3DCRT planning. Conventional CT-based and MIP-4DCT-based plans were subsequently compared with respect to target coverage, OARs dose, and respiratory motion related planning parameters.

Results: Conventional CT and MIP-4DCT differed consistently in visualization and delineation of mobile target and adjacent OARs. MIP-4DCT-based plans achieved 3-4% higher D95 (Dose to 95% of target volume) relative to conventional CT-based plans. Respiratory-induced tumor motion revealed a superior displacement approximately 0.5-0.6 cm, directed away from the lung and heart. The lung volume showed noticeable displacement approximately 0.5-0.6 cm on MIP-4DCT relative to conventional CT, corresponding to lung V_{20} (Volume receiving $\geq$ 20 gray) sparing of approximately 3-4% in MIP-4DCT-based plans. No, clinically significant difference was observed in mean heart dose (MHD).

Conclusion: MIP-based 4DCT provides valuable information regarding respiratory motion missed by conventional CT. Its incorporation in thoracic radiotherapy planning improves target definition, enables more accurate OAR motion assessment, and yields superior target coverage with comparable cardiac dose, supporting it as a more reliable simulation modality.

ABS-081

Enhancing Intrafraction Treatment Accuracy in Non-Coplanar Lung SBRT with Real-Time SGRT

Sushma Evangelin S*, Sumanta Manna, Ragul T, Sharad Singh, Pramod Kumar Gupta, Rumita Singh, Ritika Ranjan, Himanshu Verma, Anupama N V
Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow
*Medical Physics Resident, Email: ssushmaevangelin1998@gmail.com

Introduction: Non-coplanar stereotactic body radiotherapy (SBRT) enables highly conformal treatment of lung tumours but introduces additional positional uncertainties during gantry and couch rotation. Surface-guided radiation therapy (SGRT) provides non-ionising, real-time monitoring of patient surface position and may improve intrafraction positional assurance.

Aims & Objectives: To evaluate the feasibility and clinical utility of AlignRT-based SGRT for patient positioning and continuous intrafraction motion monitoring during non-coplanar lung SBRT, using pre- and post-treatment cone-beam computed tomography (CBCT) to assess residual positional changes.

Materials & Methods: 24 pre- and post-treatment CBCT scans of 6 patients with lung lesions treated using non-coplanar SBRT were retrospectively evaluated. All underwent 4DCT simulation and Eclipse-based treatment planning. Patient positioning and continuous intrafraction monitoring were performed using the AlignRT system with a suitable region of interest (ROI). CBCT verification and six-degree-of-freedom couch correction were performed before treatment. Translational (0.2 cm) and rotational (1.2°) monitoring thresholds were applied. Pre- and post-treatment CBCT scans were compared with SGRT observations to assess residual intrafraction positional changes.

Results: Following AlignRT-guided positioning and CBCT-based correction, residual setup errors were approximately found to be 0.14 ± 0.31 cm, -0.16 ± 0.24 cm, 0.15 ± 0.37 cm, 0.03° ± 0.91°, -0.34° ±0.9°, 0.19° ±0.61° in the vertical, longitudinal, lateral, pitch, roll, and rotational movement, respectively. Continuous SGRT monitoring enabled real-time assessment of patient positional stability during non-coplanar SBRT delivery. Post-treatment CBCT provided an independent assessment of residual intrafraction positional changes, supporting the complementary role of SGRT and image guidance in treatment accuracy.

Conclusion: AlignRT-based SGRT provides continuous, non-ionising intrafraction monitoring during non-coplanar lung SBRT, complementing CBCT-based target localisation and setup verification. Appropriate ROI selection and QA assessment across clinically relevant gantry and couch angles are essential for reliable monitoring. Larger prospective studies are warranted to validate these findings and establish clinically relevant monitoring thresholds for individualised margin optimisation.

ABS-082

Breast Spindle Cell Sarcoma

Gargi Khandelwal*
Apex Superspeciality Hospital, Varanasi, Uttar Pradesh
*Resident, Email: gargijhalani23@gmail.com

Objective: Breast spindle cell sarcoma is a rare and aggressive form of cancer, and the surgery represents the only potentially curative therapy. Due to the low incidence of the disease, not enough studies have been conducted on its clinic-pathological characteristics so as to define an adequate and consolidated therapeutic approach.

The objective of this paper is to report a case of breast sarcoma to highlight the importance of early diagnosis and treatment.

Materials and Methods: We report a case of a 21-year-old woman with right breast sarcoma, who underwent right Modified Radical Masectomy (MRM) and axillary LN dissecton on 13/7/26.Histopathology and IHC were suggestive of spindle cell sarcoma with vimentin positive, CD68 +VE, CD 10 +VE.She then received adjuvant External Beam Radiation Therapy (EBRT) to right chest wall to a dose of 50Gy/25# @2Gy/ # over 5 week. She is now planned to receive adjuvant chemotherapy.

Results: Patient well tolerated to radiotherapy. Presently, she is disease-free, and now she is planned to receive adjuvant chemotherapy.

Conclusion: This case report underlines the importance of early and timely intervention of the aggressive form of breast sarcoma.

ABS-083

Eye-Sparing Trimodality Management of Locally Advanced Upper Eyelid Sebaceous Carcinoma with Orbital Extension: A Case Report

Kanchan Kumari*
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Resident, Email: kanchansingh0803@gmail.com

Introduction: Sebaceous carcinoma (SC) is an aggressive periocular adnexal malignancy, disproportionately common in Asian-Indians, where Indian multicentre data identify it as the leading eyelid cancer (42.6%). In a SEER review of 1,349 cases, nearly one-third of deaths were cancer-related. Nodal metastasis rises steeply with AJCC T category, reaching 44% for T4 tumours, and orbital disease has traditionally required exenteration.

Aims and Objectives: To report eye-sparing multimodal management of a locally advanced eyelid SC and its outcome.

Materials and Methods: A 47-year-old male presented with a 9-month left upper eyelid swelling. MRI (February 2024) showed a ~4×6 cm lid lesion; needle biopsy confirmed SC. CECT (May 2024) showed a 3.0×4.4×3.6 cm soft-tissue component at the lateral orbital apex involving the lacrimal gland. Neck ultrasound showed small cervical nodes (levels IB–V). Contrast MRI (June 2024) showed a 47×54×40 mm exophytic lesion reaching the medial canthus (AJCC 8th cT4a). He received 10 cycles of neoadjuvant paclitaxel (260 mg) and carboplatin (550 mg), last dose January 2025. This was followed by wide local excision with primary closure in February 2025, and adjuvant EBRT of 54 Gy in 27 fractions, completed June 2025.

Results: Histopathology confirmed SC, with pan-cytokeratin and EMA positivity. All treatment was completed as planned. At 15 months after radiotherapy, the patient is asymptomatic with no clinical evidence of local recurrence or nodal or distant metastasis.

Conclusion: For orbit-invading eyelid SC, neoadjuvant chemotherapy followed by eye-sparing excision and adjuvant radiotherapy is a feasible alternative to exenteration. Because most recurrences occur within two years, continued close surveillance remains essential.

ABS-084

Quantifying Interfraction Motion in Rectal Cancer to Inform Differential PTV Expansion: A Retrospective kV-CBCT Study

Nilanjana Dahiya*, Shagun Misra, Senthil Kumar SK
Department of Radiotherapy, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
*Junior Resident, Email: nilanjana09@gmail.com

Background: Conventional radiotherapy uses uniform CTV-to-PTV expansions, although inter-fraction motion may vary by rectal subsite. Upper rectal tumours are more susceptible to bowel peristalsis, luminal distension, and bladder filling, whereas lower rectal tumours are relatively fixed. Differential margins demonstrated in MR-Linac studies remain insufficiently explored using conventional kV-CBCT during long-course radiotherapy (LCRT).

Aim: To evaluate inter-fraction GTV variation across rectal subsites using pretreatment kV-CBCT and determine the minimum isotropic expansion of baseline CTV-total required to encompass the observed GTV envelope.

Materials and Methods: This retrospective study included 21 patients with rectal carcinoma treated with VMAT-based LCRT, with or without concurrent chemotherapy. Tumours were classified as lower (0-5 cm), middle (5-10 cm), or upper (10-15 cm) according to distance from the anal verge. Patients with fewer than three evaluable kV-CBCT datasets were excluded. CBCTs were registered to baseline planning CT using bony anatomy. Two observers independently delineated GTVs, blinded to baseline GTV. Serial contours were combined using Boolean union to generate a composite GTV envelope. Baseline CTV-total was expanded isotropically in 5-mm increments to determine the minimum margin encompassing the entire envelope.

Results: Of 21 patients, 6 had upper, 9 middle, and 6 lower rectal tumours, with a mean of five evaluable CBCTs per patient. Upper rectal tumours required the greatest expansion (1.5-3.0 cm), followed by middle rectal tumours (0.5-1.0 cm). In all lower rectal tumours, the composite GTV envelope remained within the existing PTV.

Conclusion: Inter-fraction GTV variation differed by rectal subsite, with upper rectal tumours demonstrating the greatest geometric variation. These findings suggest that uniform margins may inadequately account for subsite-specific motion and warrant further evaluation of tumour height-adapted PTV expansion strategies in conventional image-guided radiotherapy.

ABS-085

Metastatic Disease at Presentation, Treatment Response and Locoregional Treatment Across Molecular Subtypes in Breast Cancer Patients Receiving Upfront Chemotherapy: A Real-world Cohort Study

Rohit*, Mohd. Shadab Alam, Mohsin Khan, Maya-i-ka Marbaniang
Department of Radiation Oncology, Jawaharlal Nehru Medical College and Hospital, Aligarh Muslim University, Aligarh.
*Junior Resident, Email: rj02061999@gmail.com

Introduction: Molecular subtype shapes chemosensitivity and metastatic behaviour of breast cancer, and pathological complete response (pCR) after neoadjuvant chemotherapy predicts survival most strongly in triple-negative (TNBC) and hormone receptor-negative, HER2-positive disease. Indian patients often present with advanced disease and limited access to HER2-targeted therapy.

Aims & Objectives: To compare metastatic disease at presentation, response to upfront chemotherapy, pCR, and locoregional treatment across four immunohistochemical subtypes.

Materials & Methods: Retrospective cohort of patients receiving upfront chemotherapy (151 records; 1 without clinical data excluded). Subtypes were hormone receptor (HR)-positive/HER2-negative (HR+/HER2-), HR+/HER2+, HR-/HER2+, and TNBC. Clinical response was as recorded by the treating team; pCR was ypT0/is ypN0 on post-operative histopathology. Subtypes were compared with chi-square tests (Monte Carlo exact for small cells).

Results: Of 150 patients (median age 46.5 years; stage III-IV 74.7%), 46 (30.7%) were HR+/HER2-, 26 (17.3%) HR+/HER2+, 35 (23.3%) HR-/HER2+, and 43 (28.7%) TNBC. Distant metastasis at presentation affected 27/149 (18.1%), from 14.3% (TNBC) to 22.9% (HR-/HER2+) (χ^2 (3) =0.98, p=0.79). Objective response was 81.4% (114/140), similar across subtypes (77.5-83.3%; χ^2 (3) =0.57, p=0.93). pCR was achieved in 15/104 (14.4%) operated patients with histopathology: HR+/HER2- 6.2%, HR+/HER2+ 21.1%, HR-/HER2+ 12.5%, and TNBC 20.7% (χ^2 (3) =3.40, p=0.34); 8 were indeterminate. Only 4/61 (6.6%) HER2-positive patients received neoadjuvant trastuzumab. Surgery was performed in 107 (71.3%; modified radical mastectomy 86.0%) and locoregional radiotherapy documented in 80 (74.8%) of them, without subtype differences (χ^2 (3) =0.09, p=0.99 and χ^2 (3) =0.74, p=0.88).

Conclusion: In this largely advanced-stage cohort, metastasis at presentation, chemotherapy response, and locoregional treatment did not differ significantly by subtype, although subgroups were small. pCR was low; in HR-/HER2+ disease it was well below the 35.4% reported from an Indian centre where most HER2-positive patients received HER2-targeted therapy [2], consistent with rare neoadjuvant trastuzumab use here. Wider access to HER2-targeted therapy and complete nodal reporting are needed.

ABS-086

Wilms Tumour in incomplete Denys-Drash syndrome associated with a rare WT1 exon 1 frameshift mutation and 46XY disorder of sex development: A Case report and review of literature

Jaishree Patel[1*], Shalini Singh[1], Tinka[1], Nilanjana Dahiya[1], Arun K. Yadav[1], Pallavi Prasad[2], Dipti Saxena[3], Basant Kumar[4] Departments of Radiotherapy[1], Pathology[2], Medical Genetics[3] and Pediatric Surgical Superspecialities[4]
Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Uttar Pradesh
[*]Junior Resident, Email: pjaishree8@gmail.com

Background: Denys-Drash syndrome (DDS) is a rare WT1-associated disorder defined by the triad of progressive nephropathy, 46XY disorder of sex development (DSD), and Wilms tumour. Most pathogenic variants are missense mutations in exons 8 and 9; truncating variants are uncommon and may produce incomplete phenotypes. Exon 1 mutations are reported only sporadically, and DDS presenting without nephropathy is rare.

Case Presentation: A 15-month-old phenotypic female with ambiguous genitalia since birth presented with one month of progressive left-sided abdominal swelling, weight loss, poor appetite, weakness, and low-grade fever. Ultrasonography showed a large left renal mass replacing the kidney. MRI pelvis and karyotyping revealed a 46XY karyotype with persistent Müllerian structures, bifid clitoris, and streak gonadal tissue; congenital adrenal hyperplasia was excluded hormonally. Left radical nephrectomy showed favorable-histology triphasic Wilms tumour with renal sinus and renal pelvis invasion. Whole-exome sequencing identified a heterozygous WT1 exon 1 frameshift variant, c.549del p. Phe185SerfsTer106, classified as likely pathogenic. Proteinuria, edema, hypertension, nephrotic syndrome, and renal dysfunction were absent.

Conclusion: This case represents incomplete DDS with 46XY DSD and unilateral Wilms tumour without nephropathy. The coexistence of a rare exon 1 frameshift mutation, persistent Müllerian structures, absent renal manifestations and early-onset favourable-histology Wilms tumour broadens the phenotypic spectrum of WT1-associated disorders. Early recognition in unexplained 46XY DSD enables tumour surveillance, nephrological monitoring, genetic counseling and multidisciplinary management.

ABS-087

Recurrent Soft Tissue Sarcoma with Synchronous Renal Cell Carcinoma: A Rare Case Report

Karan Arora*, Mohd. Shadab Alam, Mohsin Khan, Samreen Zaheer, Aditi Agarwal
Jawaharlal Nehru Medical College & Hospital, Aligarh Muslim University, Aligarh
*Junior Resident, Email: karanarora8021@gmail.com

Introduction: Soft tissue sarcomas (STS) are rare malignant tumours with a high propensity for local recurrence. Management becomes more complex when synchronous malignancies, such as renal cell carcinoma (RCC), are present. This case highlights the therapeutic challenges and decision-making process in treating recurrent high-grade STS alongside RCC in an elderly patient.

Case Presentation: The case of a 55-year male diagnosed as recurrent spindle cell neoplasm of left shoulder with history of prior excision of left shoulder mass, histopathologically confirmed as soft tissue sarcoma, with prior history of ATT intake for 6 months, 5 years back. Incidental finding of exophytic soft tissue mass in right kidney was seen on CECT abdomen on presentation.

Treatment: He underwent right radical nephrectomy with right adrenal gland and perinephric fat and post op histopathological findings revealed clear cell RCC (grade 2, pT1), leading to no evidence of metastatic lesion on CECT abdomen.

Thereafter, he was planned for chemotherapy. He received 5 cycles of IAP, after which he underwent wide local excision of the residual lesion followed by radiotherapy, 40Gy/20#.

Outcome: There was no evidence of residual lesion on post-treatment CECT. Pt. is on follow-up for last 6 months.

Conclusion: This case underscores the importance of a multidisciplinary approach in managing recurrent STS with synchronous RCC. Timely intervention, adherence to treatment, and integrated oncological planning are crucial in optimizing patient outcomes, particularly when dealing with complex multimorbidity.

ABS-088

A Customized Immobilization for Penile Carcinoma Using a Penis Holder and Surface-Guided Radiation Therapy

Kavinraj R*, Ragul T, Ritika Ranjan, Sumanta Manna, Sharad Singh, Pramod Kumar Gupta, Rumita Singh, Sushma Evangelin S, Anupama N V, Vishnu Kumar.
Department of Radiation Oncology, Kalyan Singh Super Speciality Cancer Institute, Lucknow
*Radiotherapy Technologist, Email: rkavinraj00@gmail.com

Aim: To describe the clinical implementation of a customized frog-leg positioning technique for penile carcinoma radiotherapy using a half-body Vac-Lok, a customized penis holder, wax bolus, and surface-guided radiation therapy (SGRT), with cone-beam computed tomography (CBCT) verification.

Methods: A patient diagnosed with penile carcinoma stage $cT_2N_3M_0$, with partial penectomy, was positioned in the frog-leg position for external beam radiotherapy. A half-body Vac-Lok cushion (65 × 65 cm^2) was moulded to elevate the knee region and maintain the intended treatment geometry, with the aim of minimizing unwanted skin folds and potential skin reactions. The penis was positioned within a customized penis holder and surrounded by a single layer of 2-mm-thick wax bolus to provide the intended superficial dose build-up. The holder was shaped and positioned to facilitate reproducible geometry during computed tomography (CT) simulation and subsequent treatment fractions.
CT simulation was performed using a Philips Brilliance Big Bore CT scanner. A total dose of 59.4 Gy in 33 fractions was prescribed, and volumetric modulated arc therapy (VMAT) planning was performed using the Eclipse treatment planning system. Before each treatment fraction, patient positioning was performed using the Vision RT AlignRT system, followed by CBCT verification. Image-guided setup corrections were recorded.

Results: The customized half-body Vac-Lok facilitated frog-leg positioning, while the penis holder and wax bolus established the intended treatment geometry. AlignRT supported initial surface-guided positioning, and CBCT provided additional verification of patient alignment. Fraction-wise image-guided setup corrections were recorded to assess positioning variation. Quantitative analysis of these corrections is required to characterize setup reproducibility.

Conclusion: The integration of a customized half-body Vac-Lok, penis holder, wax bolus, and SGRT provided a structured workflow for frog-leg positioning during penile carcinoma radiotherapy. AlignRT facilitated initial patient positioning, while CBCT enabled image-guided verification of the treatment setup. This approach represents a practical, customized immobilization strategy for radical radiotherapy in a case of Ca Penis.

ABS-089

A Rare Presentation of Chest Wall Recurrence Following Neoadjuvant Chemotherapy, Mastectomy, and Adjuvant Radiotherapy in HER2-Positive Breast Carcinoma: A Case Report

Namrata Dixit*, Ajeet K. Gandhi, Madhup Rastogi, Rohini Khurana, Rahat Hadi, Anoop K. Srivastava
Department of Radiation Oncology, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow
*Junior Resident, Email:namratadixit59@gmail.com

Introduction: Cutaneous metastasis is uncommon manifestation of breast cancer that may mimic radiation-induced dermatitis or radiation recall. Histopathological confirmation is essential for accurate diagnosis and appropriate management.

Aims and Objectives: To describe rare case of chest wall cutaneous recurrence following neoadjuvant chemotherapy, modified radical mastectomy, and adjuvant radiotherapy in patient with HER2-positive breast carcinoma, highlighting the diagnostic challenge of differentiating cutaneous metastasis from radiation-induced dermatitis.

Materials and Methods: A 49-year-old female with right breast invasive carcinoma of no special type and HER2-positive status was treated with neoadjuvant docetaxel, carboplatin, and trastuzumab, followed by right modified radical mastectomy. Histopathological findings and surgical margins were assessed. Adjuvant external beam radiotherapy of 40Gy/15# was delivered to right chest wall and supraclavicular region, followed by maintenance Trastuzumab. Subsequently, erythematous, scaly plaques developed over irradiated chest wall, axilla, shoulder, and upper arm. The lesions were evaluated clinically and initially considered to represent radiation recall dermatitis. Persistent and progressive lesions despite topical corticosteroid therapy prompted skin biopsy for histopathological confirmation.

Results: The patient developed persistent and progressively enlarging erythematous, scaly lesions involving previously irradiated chest wall, axilla, shoulder, and upper arm. Despite topical corticosteroid treatment, lesions did not resolve. Skin biopsy performed metastatic adenocarcinoma, establishing diagnosis of cutaneous metastasis. Capecitabine-based systemic therapy was subsequently initiated.

Conclusion: Cutaneous metastasis following radiotherapy may clinically mimic radiation dermatitis or radiation recall, particularly when occurring within previously irradiated field. Persistent, progressive, or treatment-resistant skin lesions should prompt early histopathological evaluation.

ABS-090

Rotational Setup Errors and Their Implications on Target Volumes and Dosimetry in Cancer Cervix Patients

Himanshi Aggarwal*, Arvind Kumar Chauhan, Himanshi Khattar, Jitendra Nigam, Piyush Kumar
Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly
*Junior Resident, Email: drhimanshiaggarwal01@gmail.com

Introduction: Accurate positioning is essential in cervical cancer radiotherapy. Although image-guided radiotherapy (IGRT) corrects translational errors, residual rotational errors may affect target coverage and dose to organs at risk (OARs). This study evaluates rotational setup errors and their dosimetric implications.

Aims and Objectives:

Primary objective:

- To evaluate rotational setup errors in carcinoma cervix patients.

Secondary objectives:

- To compare planning target volume (PTV) dosimetry with and without rotational correction.
- To evaluate OAR dose changes after correction.

Materials and Methods: Sixteen patients with carcinoma cervix undergoing radiotherapy were studied. Cone-beam CT (CBCT) images were registered with planning CT to assess residual translational and rotational (pitch, yaw, roll) setup errors. PTV parameters (V95, D95, D98, Dmean, Dmax, homogeneity and conformity indices) and OAR doses (bone marrow, rectum, bladder, femoral heads, bowel) were compared between plans with and without rotational correction using t-tests; $p<0.05$ was significant.

Results: Mean age was 54.8 ± 11.6 years; stage (documented in 12 patients) ranged from IIA2 to IIIC2. Only pitch showed a significant systematic error (0.72 ± 0.56°, $p<0.001$); other translational and rotational errors were not significant. After rotational correction, mean PTV dose increased significantly from 50.25 ± 1.40 to 51.67 ± 1.98 ($p = 0.027$), while maximum PTV dose ($p = 0.082$), other PTV parameters, and all OAR parameters showed no significant change. Rectal V30 decreased, but not significantly ($p = 0.077$).

Conclusion: Pitch was the only axis with a significant systematic setup error. Rotational correction significantly increased mean PTV dose, while other target and OAR parameters remained comparable. Rotational setup errors merit assessment in cervical cancer radiotherapy; larger studies are needed to establish clinical significance and the benefit of routine correction.

ABS-091

Interfractional Variations in Target Volume, Organs at Risk and Dosimetry During CT-Based Brachytherapy in Carcinoma Cervix: An Interim Analysis

D Baijal*, P Kumar, A Kumar, H Khattar, NS Silambarasan
Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly
*Junior Resident, Email:divyanshibaijal18@gmail.com

Introduction: High-dose-rate (HDR) intracavitary brachytherapy is essential for definitive treatment of locally advanced cervical cancer. Interfractional anatomical changes may affect target volume, dose coverage, and organs-at-risk (OAR) dosimetry. CT-based image-guided brachytherapy enables volumetric assessment and individualized treatment planning.

Aims and Objectives: To evaluate interfractional variations in high-risk clinical target volume (HR-CTV) and HR-CTV D_{90} across three successive CT-based HDR brachytherapy fractions, and assess changes in bladder, rectal, and colon volumes and bladder, rectal, and sigmoid colon D_{2cc}.

Materials and Methods: This prospective observational study is being conducted at the Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly, Uttar Pradesh, India. Interim analysis included 15 patient records with complete observations per parameter across three fractions. Repeated-measures analysis of variance (ANOVA) was used to compare target and OAR volumes and dosimetric parameters. Statistical significance was set at $p < 0.05$.

Results: HR-CTV volume differed significantly across fractions ($F(2,26) = 7.806$, $p = 0.002$), with mean values of 109.42, 88.77, and 79.16. HR-CTV D90 also varied significantly ($F(2,26) = 4.454$, $p = 0.022$), with means of 4.58, 5.34 and 4.91, respectively. No significant differences were observed in colon ($p = 0.600$), rectal ($p = 0.379$), or bladder volumes ($p = 0.283$), bladder D2cc ($p = 0.054$), rectal D2cc ($p = 0.174$), or sigmoid colon D2cc ($p = 0.077$).

Conclusion: Significant interfractional variations in HR-CTV volume and D90 highlight the importance of fraction-specific target assessment during CT-based HDR brachytherapy. Although OAR parameters showed no statistically significant overall changes, dosimetric equivalence and clinical safety cannot be inferred. Completion of the planned cohort and further analysis are needed to establish the clinical implications of these preliminary findings.

ABS-092

Variations in Target Volumes, Organs at Risk, and Dosimetry in Adaptive Radiotherapy of Head and Neck Cancers

Diksha*, P Kumar, P Kumar, H Khattar, J Nigam
Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly
*Junior Resident, Email: dikshalaura242@gmail.com

Introduction: Anatomical changes during head and neck cancer (HNC) radiotherapy, including tumor regression and weight loss, may alter target volumes, organs at risk (OARs), and dose distribution. Adaptive radiotherapy (ART) uses interval imaging and replanning to address these changes.

Aims and Objectives: To evaluate variations in target volumes, OARs, and dosimetric parameters between non-adaptive and adaptive radiotherapy approaches in locally advanced HNC.

Materials and Methods: This prospective observational study included 12 patients with AJCC stage III or higher HNC receiving definitive radiotherapy to 70 Gy in 35 fractions using IMRT/VMAT. Planning CT was performed before treatment and repeated during the fourth week (18–22 fractions). Target volumes and OARs were re-delineated. Deformable image registration facilitated dosimetric comparison between continuation of the original plan and adaptive replanning. Paired comparisons were performed, with $p<0.05$ considered statistically significant.

Results: Significant differences were observed in PTV V_{95} ($p=0.006$), D_{95} (68.64±0.67 vs 63.07±7.68 Gy; $p=0.022$), D_{98} (66.97±1.59 vs 58.54±8.83 Gy; $p=0.007$), D_{mean} (70.13±0.31 vs 69.33±0.99 Gy; $p=0.003$), D_{max} (72.99±0.86 vs 72.04±0.54 Gy; $p=0.001$), D_2 ($p=0.035$), homogeneity index ($p=0.004$), and conformity index ($p=0.005$). Overall planning target volume (PTV) differences were not significant ($p=0.112$). Among OARs, only mandibular Dmax differed significantly (69.74±5.70 vs 69.11±5.71 Gy; $p=0.043$); other OAR dose differences were non-significant.

Conclusion: Mid-treatment assessment revealed significant differences in multiple target dosimetric parameters despite non-significant changes in overall PTV volume. OAR differences were limited in this interim cohort. These findings support interval assessment during definitive HNC radiotherapy to identify patients who may benefit from adaptive replanning.

ABS-093

Radiation-Induced Hypothyroidism Following Intensity-Modulated Radiotherapy Versus Volumetric Modulated Arc Therapy in Head and Neck Cancer: A Dosimetric Analysis and Clinical Implications

Darshit H. Godiwala*, Pavan Kumar, Piyush Kumar
Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly
*Junior Resident, Email: dikshalaura242@gmail.com

Introduction: Radiation-induced hypothyroidism is an important late toxicity of head and neck radiotherapy because of the thyroid gland's proximity to the treatment volume. It may impair quality of life and require long-term hormone replacement. Although intensity-modulated radiotherapy (IMRT) and volumetric modulated arc therapy (VMAT) provide conformal dose delivery, thyroid exposure may differ. Thyroid dosimetry and serial function tests may help identify patients at risk.

Aims and Objectives: To evaluate radiation-induced hypothyroidism in patients with head and neck squamous cell carcinoma treated with IMRT or VMAT, assess thyroid dose-volume parameters, thyroid function changes, clinical toxicities, and treatment compliance, and compare outcomes between techniques.

Materials and Methods: This prospective comparative study was conducted at the Department of Radiation Oncology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly. The preliminary dataset included 16 IMRT and 7 VMAT records. Patients received planned radiotherapy of 70 Gy in 35 fractions, with concurrent cisplatin where indicated. T3, T4, and thyroid-stimulating hormone (TSH) were measured before treatment and during follow-up. Dosimetric parameters included mean, maximum, and minimum thyroid doses and V_{30}, V_{40}, V_{45}, V_{50}, V_{55}, and V_{60}. Clinical features, treatment compliance, and radiation-related toxicities were documented. Data were reviewed descriptively; complete follow-up and statistical comparisons remain pending.

Results: The preliminary dataset comprised 23 records: 16 IMRT and 7 VMAT. At the recorded three-month assessment, elevated TSH was noted in 5/16 IMRT records (25%) and 2/7 VMAT records (28%). These biochemical findings alone do not establish clinical or subclinical hypothyroidism. Missing entries and incomplete follow-up prevented reliable comparative statistical analysis. Six-month outcomes and associations between thyroid dose-volume parameters and dysfunction require further evaluation.

Conclusion: Thyroid dysfunction should be monitored systematically after head and neck radiotherapy. These preliminary findings support evaluating serial thyroid function alongside thyroid dosimetry in patients treated with IMRT and VMAT. Complete follow-up and statistical analysis are needed to determine differences between techniques and clarify relationships between thyroid dose-volume parameters and hypothyroidism. Thyroid-sparing planning should be considered when feasible without compromising target coverage.

ABS-094

A Prospective Randomized Comparison of Two Simultaneous Integrated Boost Dose Schedules of Intensity-Modulated Radiotherapy in Head and Neck Cancer

Anil Kumar Jaiswal[1*], Sunil Choudhary[2], Abhijit Manadal[2], Ishan Kumar[2], Sushil K aggarwal[2], Nilesh Mani[3]

[1]Jawaharlal Nehru Cancer Hospital and Research Centre Bhopal, [2]IMS, BHU, Varanasi, [3]AIIMS Patna

[*]Junior Consultant, Email: dr.aniljaiswal109@gmail.com

Introduction: Simultaneous integrated boost intensity-modulated radiotherapy (SIB-IMRT) can shorten treatment while delivering different dose levels to target volumes, but comparative evidence for specific schedules is limited.

Objectives: To compare survival outcomes and toxicity between two SIB-IMRT dose schedules in locally advanced head and neck squamous cell carcinoma.

Methods: This prospective randomized comparative study enrolled 20 patients with stage III–IVA HNSCC between August 2019 and August 2021. Nine patients received SIB-70 (70/61/54 Gy in 35 fractions), and 11 received SIB-66 (66/60/54 Gy in 30 fractions). Overall survival (OS) and disease-free survival (DFS) were estimated using the Kaplan–Meier method. Toxicities were graded using Radiation Therapy Oncology Group criteria. Survival status was updated using Kaplan Meier test.

Results: Median treatment duration was significantly shorter with SIB-66 than with SIB-70 (44 versus 53 days; $P = 0.018$). Two-year OS was 72.7% versus 88.9%, and five-year OS was 45.5% versus 55.6%, respectively (log-rank $P = 0.906$). Five-year DFS was 45.5% with SIB-66 and 55.6% with SIB-70 (log-rank $P = 0.954$). No significant differences were observed in acute toxicity distributions. Exploratory analyses identified differences in late mucosal ($P = 0.018$), salivary-gland ($P < 0.001$), and laryngeal toxicity ($P = 0.003$), with grade 2 events predominantly observed in the SIB-70 group. No grade 3–4 late toxicities were recorded.

Conclusion: SIB-66 significantly reduced treatment duration, with no statistically significant differences in OS, DFS, or acute toxicity. The late-toxicity findings require cautious interpretation. Larger prospective studies are needed to establish comparative efficacy and long-term safety.

ABS-095

Clinicopathological Features of Carcinoma Rectum and Their Correlation with Response to Neoadjuvant Treatment: A Real-World Retrospective Cohort Study

Abhimanyun Dubey*, Mohd Akram, Shadab Alam, Mohsin Khan, Samreen Zaheer
Department of Radiation Oncology, JNMCH, Aligarh Muslim University, Aligarh
*Junior Resident, Email: abhimanyundubey818@gmail.com

Introduction: Neoadjuvant treatment is an integral component of management for locally advanced rectal cancer. Understanding the relationship between baseline clinicopathological characteristics and treatment response may facilitate risk stratification and individualized treatment planning.

Aim: To evaluate the clinicopathological profile of patients with rectal carcinoma and explore its association with response to neoadjuvant treatment.

Materials & Methods: A retrospective analysis of 30 LARC patients treated with total neoadjuvant therapy (TNT) at JNMCH, AMU. Demographic characteristics, clinical T and N stages, tumour distance from the anal verge, baseline carcinoembryonic antigen (CEA), histological subtype, tumour differentiation, extramural venous invasion (EMVI), meso rectal fascia (MRF) involvement, treatment regimen, follow-up MRI findings, and available post-treatment pathological data were analysed descriptively.

Results: The overall complete response rate was 23.3% (7/30). Baseline primary tumor stage was a major predictor of response; 43.8% (7/16) of cT3 tumors achieved complete response compared to 0% (0/14) of cT4 tumors ($p = 0.0073$). Absence of high-risk baseline MRI features strongly correlated with favorable response: EMVI-negative tumors demonstrated a significantly higher response rate than EMVI-positive tumors (46.2% vs. 5.9%, $p = 0.0247$), while MRF-negative status yielded a 54.5% response rate versus 5.3% in MRF-positive disease ($p = 0.0045$). Continuous biomarker analysis demonstrated that post-neoadjuvant serum CEA levels were significantly lower in complete responders compared to non-responders. Baseline CEA levels and nodal status showed non-significant trends towards response. The median CEA decreased from 9.85 ng/mL at baseline to 3.60 ng/mL at follow-up.

Conclusion: Baseline cT3 stage, EMVI negativity, and clear MRF status predict a better response to total neoadjuvant therapy (TNT) in rectal adenocarcinoma, with cT3 tumors achieving higher response rates than cT4. Additionally, post-treatment CEA normalization serves as a reliable non-invasive marker for risk stratification, whereas EMVI positivity, MRF involvement, and high initial CEA trend toward poorer outcomes.

ABS-096

Quality of life after Palliative Radiotherapy Treatment in stage III and stage IV Carcinoma Gall Bladder Patients

Yashpal Singh[*], S.N. Prasad
Department of Radiation Oncology, J.K. Cancer Institute, Kanpur
[*]Junior Resident, Email: yashpalsingharyan@gmail.com

Background: Carcinoma of the gallbladder (Carcinoma GB) is a rapidly progressive malignancy of the biliary tract that frequently presents at an unresectable stage. Palliative radiotherapy (RT) aims to alleviate symptoms, enhance quality of life (QOL), and improve short-term survival.

Methods: A hospital-based observational study was conducted on 60 histologically confirmed Carcinoma GB patients in Stage III and IV who underwent palliative RT at a tertiary cancer centre between 2024 to 2025. Data were obtained from two treatment arms: ARM A (25 Gy/5#) and ARM B (30 Gy/10#). Demographic, clinical, and radiotherapeutic variables were analysed. Statistical analysis included descriptive distribution, frequency comparison, and cross-tabulation by stage, arm, and post-treatment status.

Results: The mean age of patients was 56.3 years, with females comprising 70%. Stage IV disease accounted for 86.7% of cases. At sixth-month follow-up, 60% of patients were alive and 40% had expired. Pain relief was achieved in 80% (53.3% complete, 26.7% partial) and QOL improved in 60%. Stage III patients demonstrated 76% short-term survival versus 54% in Stage IV. Toxicity was predominantly Grade I–II. ARM B (30 Gy/10#) showed slightly higher complete pain response (56.6%) and survival (63.3%) than ARM A.

Conclusion: Palliative radiotherapy provides meaningful symptomatic relief (pain) and short-term survival benefit for advanced Carcinoma GB patients with minimal toxicity. Early integration of RT within multimodal palliative care substantially improves comfort and functional status.

Supported by

















































Oncobiotek Formulations Pvt. Ltd.

MEDION BIOTECH

Masttree Formulations Pvt. Ltd.

AUREATE

KRS Kalyani Radiotherapy Specialty India (P) Lt

Selway Life Sciences Pvt. Ltd.

POCL MEDICAL SOLUTIONS
PEOPLE YOU KNOW, PRODUCTS YOU TRUST !
Since 1980

Elekta

PTW THE DOSIMETRY COMPANY

WEEMBRACE™

Otitius Care Remedies Pvt. Ltd.

Integrin Health Care

TORRENT PHARMA

AEGIS ONCOLOGY
SUPPORTING HANDS THAT HEALS

CADILA ONCOLOGY
Care Continues through innovation...

ADULATE HEALTHCARE

TRUST YOURSELF

Best Wishes to all

Distinguished Doctor's and Delegates

attending the Annual

37th UPAROICON 2026



Warm Regards From The

ADULATE HEALTHCARE

PEOPLE
PLACES
CELEBRATIONS

DARBHA
HOTELS

STAYS | DINING | BANQUETS
ACROSS UTTAR PRADESH

HOTEL
HOMANSH
BY GOLDSUM

LUCKNOW



18 Well Appointed Rooms

Restaurant (Curry Bliss)

Banquet Hall for all occasions

No. G, 2/0058, Business Plot, 2/0058, Golf City, Pocket-2, Sector G, Lucknow, Uttar Pradesh 226002

FOR BOOKINGS

+91 90058 50104 | +91 90058 50101

www.darbhahotels.com

KAUSTUBH

MISHTI & DINING

Where Tradition Meets Taste



Authentic Flavours for Every Occasion

From traditional Indian sweets to delicious dining, Kaustubh Mishti & **Dining** offers a perfect blend of taste, quality and warm hospitality.





Premium Mithai | Delicious Dining | Perfect for Family & Friends | Hygienic & Quality Food

Pushpa Tower Nahar Road Gaya Ji Tiraha Jankipuram
Lucknow 226021

Sweetness | Food | Togetherness

PTW THE DOSIMETRY COMPANY

Dosimetry Pioneers Since 1922...

BEAMSCAN® Water Phantoms

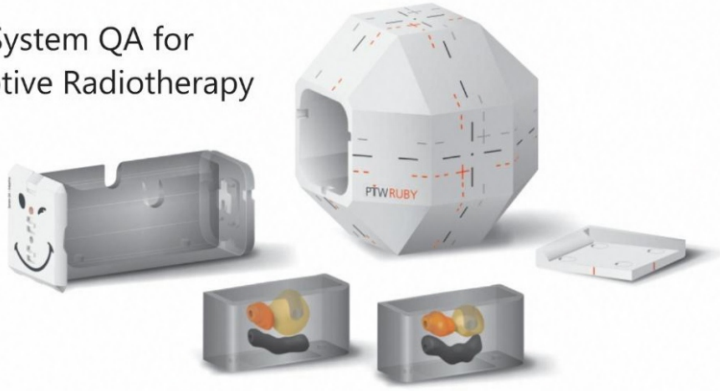


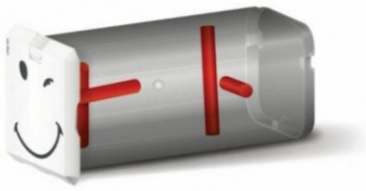


RUBY

One Phantom. All tasks.

System QA for
Adaptive Radiotherapy





LINAC QA

PTW DOSIMETRY INDIA PVT. LTD.

Chennai, Tamil Nadu, India.

Phone:+91 44 42079999 / Email: info.india@ptwdosimetry.com / Web:ptwdosimetry.com

Scan to know more

SIEMENS Healthineers

RapidArc Dynamic

A turning point for arc therapy



Published by Varian Medical Systems, Inc. – a Siemens Healthineers company • QR700034613
© Varian Medical Systems, Inc.– a Siemens Healthineers company, 2026.
All trademarks are the property of their respective owners. Not available for sale in all markets.

RaySearch Laboratories

[CODING] ENERGY TO #END_CANCER;

At RaySearch Laboratories, we transform energy into intelligence.

Innovative yet refined radiotherapy software has always been at the core of our technology. Through advanced algorithms, we shape emergent therapeutical energy into optimized cancer care.

Our software solutions are more than just lines of code — they empower energy to fight cancer.

SYSTEMS

RayStation
Comprehensive cancer treatment planning

RayCare
The next generation oncology information system

RayIntelligence
Advancing cancer treatment through machine learning

RayCommand
A unified treatment control system

OUR SOLUTIONS

Machine Learning
Intelligent treatment planning

Liver Ablation
Image-guided planning for interventional radiology

DrugLog
Control in every compound, confidence in every patient

RayMigrate
Transfer your pinnacle data with ease

µ-RayStation
Planning and evaluation for pre-clinical research

RayPlan
Fast, efficient, and straightforward to use

Explore our solutions

◀ LEARN MORE

RaySearch products are subject to regulatory clearance in some markets.

50 YEARS
EXCELLENCE IN RADIATION ONCOLOGY

ASSOCIATION OF RADIATION ONCOLOGISTS OF INDIA
तमसो मा ज्योतिर्गमय
UPAROI SOCIETY

37th UPAROICON Lucknow 2026



Organised by

Department of Radiation Oncology

Kalyan Singh Super Speciality Cancer Institute, Lucknow

