

AROI Newsletter

Jun 2023 Vol.19, Issue 2



FROM THE OFFICE OF AROI

Dear All,

Greetings from AROI !!!

AROI is growing leaps and bound. Every year new MD/DNB students are offered AROI membership and AROI is taking all necessary steps to maintain and deliver high standards of academic and professional wisdom to all radiation oncology fraternity. AROI is giving tremendous opportunities to all students, trainee and its members to grow professionally through its various programs, teaching courses, fellowships and conferences. As we are nearing towards Indian Cancer Congress at the end of year, we are determined to continue our academic endeavor. We are looking forward to meet you all again at Mumbai in November 2023 and create new memories.

Long Live AROI !!!



Dr. Rajesh Vashistha
Chair AROI



Dr. Manoj Gupta
President AROI



Dr. V Srinivasan
Secretary General AROI



Dr. S N Senapati
President Elect AROI

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On behalf of Association of Radiation Oncologists of India (AROI)

The views expressed are that of authors/contributors

From Newsletter Editors



MESSAGE FROM THE NEWSLETTER EDITORIAL BOARD

Dear Readers,

It is indeed a great honour to be the Newsletter Editor for the Association of Radiation Oncologists of India (AROI)

In this issue, we will recount the various meetings and activities in which AROI members were actively involved since March 2023 till Jun 2023. The main point to highlight is AROI has conducted first AROI – ESTRO Head & Neck Oncology Course successfully at TMH, Mumbai

Furthermore, AROI which is well known for the hard work, dedication and brotherhood of its members and especially for its academic initiative. AROI has conducted various ICRO SUN courses and ESTRO courses.

We will also have a chance to read articles from esteemed members focusing of survivorship in Gyn cancers, Artificial intelligence in radiation and radiological anatomy of cranial nerves. A huge thank you to all the persons who contributed writing the

wonderful and inspiring articles for the newsletter. We also have Winners from 43rd ICRO courses who will be felicitated during national conference.

AROI is also inviting applications for future National conference and AROI-ICRO & AROI-ESTRO courses and we hope that the members will be enthusiastic to put their nominations to hold these meetings at respective places. Also we request all AROI members and PG students to participate for various fellowships and best paper awards for upcoming national conference at Mumbai.

We would like to thank AROI Chair, President, President elect and Secretary for giving us the opportunity to publish this newsletter.

We will highly appreciate AROI members suggestions and comments to improve this newsletter and make it a readers issue in future.

We look forward to meet you all at ICC Mumbai.



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SURVIVORSHIP IN GYNECOLOGICAL CANCERS

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Introduction:

Gynecological cancers namely malignancies of ovary, uterine corpus, cervix, vulva, vagina etc. contribute to a significant burden both in developed as well as developing countries. Advances in early detection, better treatment modalities (surgery, chemoradiotherapy), and supportive care have significantly improved the prognosis for many gynecological cancer patients, leading to longer survival rates. As per the National Cancer Institute, "an individual is considered a cancer survivor from the time of diagnosis, through the balance of his or her life." Their care-givers, family members and friends, being also affected, were included in this definition (1). These cancer survivors face various challenges, encompassing a range of physical, emotional, and psychosocial challenges after completing their cancer treatment. Physical survivorship issues, namely fatigue, pain, sexual dysfunction, infertility, lymphedema, and hormonal imbalances may arise due to the treatments, such as surgery, radiation therapy, and chemotherapy. These physical changes can impact their body image, self-esteem, and intimate relationships. Emotional and psychosocial survivorship issues are also prevalent as they may experience anxiety, depression, fear of recurrence, and post-traumatic stress symptoms. The emotional toll of the diagnosis and treatment can be long-lasting, affecting their mental health and daily

functioning. Additionally, survivors may face challenges in resuming work, social activities, and fulfilling their roles within the family and community. Survivorship care for gynecological cancer patients requires a comprehensive approach. It involves regular follow-up, monitoring for recurrence, managing treatment-related side effects, and supportive care. Survivorship programs may include counseling, support groups, sexual health counseling, fertility preservation, and rehabilitation services. Healthcare providers play a crucial role as they need to be knowledgeable about specific challenges faced by cancer survivors and provide personalized care tailored to individual needs. Promoting survivorship care also involves raising awareness among patients, caregivers, and the general public about the long-term effects of gynecological cancers and available resources for support.

Sexuality related concerns:

Sexuality related concerns are very important while discussing survivorship issues. It includes both physiologic and psychologic aspects namely dyspareunia, vaginal dryness, vaginal shortening or narrowing, fear or anxiety about intercourse, decreased arousal etc. Those who had radiation reported more dyspareunia while those who received chemotherapy were more likely to suffer lower sexual desire (2,3).



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The negative effects of sexual side effects on relationships were mentioned by survivors, who also expressed the need for better information about how cancer affected their sexuality.

As per the EMBRACE-I study, grade 2 vaginal stenosis (VS) was observed in 20% patients and only 3% showed grade 3 and the rates of VS were found to be steadily rising in the first two years following treatment using image-guided adaptive brachytherapy (IGABT). The vagina has historically been thought to as a somewhat radio-resistant organ, with the distal portion of the vagina being more susceptible to necrosis at doses more than 98 Gy and the upper vaginal mucosa tolerating doses of 140–150 Gy (4). It was observed that higher doses to PIBS, PIBS+2cm and recto-vaginal reference point was associated with significantly higher rates of grade ≥ 2 VS (5). Here comes the role of vaginal dose de-escalation in the era of IGABT in order to reduce vaginal toxicities (6). It was observed that by reducing the vaginal loading to one-third as compared to 50% of the total loading, vaginal dose was significantly reduced without compromising the target dose which is expected to reduce VS.. Premature menopausal symptoms are brought on by pelvic irradiation, particularly when the ovaries are in-situ. These symptoms can include vaginal and vulvar atrophy, vaginal dryness, moodiness, irritability, and vasomotor symptoms like night sweats and hot flashes (7). In younger women who have experienced early ovarian failure following radiation treatments for gynecologic malignancies, systemic and local HRT should thus be seriously explored. Treatment should be started when symptoms are most likely to manifest, within 3 to 4 months after completing irradiation (8). In the EMBRACE-1 study, women who were sexually active and <50 years old who used regular HRT (either systemic, vaginal, or both) reported considerably decreased vaginal dryness, vaginal shortening, and discomfort during sexual activity. They discovered that, depending on the

symptom, individuals who used HRT had a relative risk reduction of 35 to 50% compared to those who did not, including a nearly 50% decrease in the percentage of respondents who reported suffering pain during sex (9). A new vaginal tissue selective estrogen receptor modulator, ospemifene has been recently approved by US FDA for dyspareunia in patients with vaginal atrophy (10). In early stages for adolescents and young adults, fertility sparing surgeries (FSS) are being used increasingly in order to preserve fertility as well as the hormonal function of the ovaries. For early cervical cancer (till stage IB1), options for FSS include conization or trachelectomy, which leaves behind the uterine body intact and has comparable oncological outcomes as that of radical hysterectomy. Similarly in young females with ovarian cancer in early stage, use of FSS may be permitted by sparing the uterus and contralateral ovaries.

Physical needs:

Physical symptoms usually include fatigue, lymphedema, urinary and bowel dysfunction, weight changes, menopausal symptoms, pain etc. Most gynecological cancer survivors remain unprepared for treatment related toxicities due to the limited information they receive prior to treatment and are hence ill-equipped to manage their own symptoms. With improved survival rates, more information needs to be dissipated about how to adjust to life after cancer including health promotion and healthy living. Post pelvic radiation, the gastrointestinal tract is considerably affected which may be acute or chronic injury. . GI symptoms in cancer survivorship after pelvic RT may also be due to causes that are not directly related to RT; likely differentials include relapse of primary tumor, secondary tumor, bowel stricture, bowel fistula, and flare of preexisting GI disease (20). The incidence of late bowel and rectal toxicities has been closely associated with the radiation dose received and the technique used for treatment.



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With the advent of new RT techniques, use of IG-IMRT has resulted in significantly less incidence of grade ≥ 2 late GI toxicity (21.2% vs 42.4%) and significantly less diarrhea and bowel symptoms as shown by the PARCER study(21). Similarly, in the EMBRACE-1 trial, it was reported that D2cc \geq 75Gy was associated with 12.5% risk of rectal fistula at 3years (11). Another study from the same trial group showed that incidence of late diarrhea was affected by D2cc of bowel and rectum during brachytherapy as well as determined by dosimetric EBRT parameters of V43Gy, V57Gy and use of para-aortic radiation (12).

Late urinary toxicities are also observed in such patients, of which radiation cystitis and ureteral stricture are the most common. Women who undergo treatment for cervical cancer regardless of treatment modality have been observed to frequently experience pelvic floor dysfunction namely urinary frequency, urge/stress incontinence, incomplete emptying, stool incontinence for which pelvic floor strengthening physiotherapeutic exercises should be recommended. In the EMBRACE trial, the most frequently reported grade ≥ 2 symptoms were frequency/urgency, incontinence, and cystitis with an incidence of 4.3%, 5.0% and 1.7% respectively at 3-years. Using bladder D2cc of 100 Gy as cutoff with IGABT, an increase in the incidence of grade ≥ 2 was observed (9% with ≤ 100 Gy vs 13% with >100 Gy) (13).

Approximately half of ovarian cancer patients report fatigue and one-fourth of long-term survivors still experience persistent fatigue. It has been demonstrated that educating patients about leading healthy lifestyles that include physical activity, better sleep hygiene, and psychological treatments can reduce fatigue.

Lower extremity lymphedema poses a significant concern for patients having pelvic surgery, which has a detrimental effect on quality of life. Decongestive therapy, including physiotherapy and compression

therapy, is the main therapeutic strategy. Micro vascular surgery has been proven to be a successful therapeutic option if conservative measures fail (14). A neglected long-term adverse effect of chemotherapy including taxanes and/or platinum-based drugs is neuropathy. Taxane-related peripheral sensory neuropathy is dose-dependent and more prevalent in individuals with co-morbidities including sensory diabetes and advanced age that are also linked to neuropathy. Supportive care, such as physical therapy, exercise, acupuncture, vitamin B supplementation, patient education on proper footwear, referrals to podiatrists, and assistance with daily tasks can all be beneficial. Patients who experience persistent pain due to neuropathy may be sent to a neurologist for medications such gabapentin, venlafaxine, or norepinephrine reuptake inhibitors (15).

Patients with gynecologic cancer are more likely to develop osteoporosis, especially if they go through an early menopause brought on by an oophorectomy, or chemotherapy, and/or pelvic radiation, which increases the risk of bone loss and insufficiency fractures (16). All patients treated for gynecologic cancer are advised to undergo an immediate post-treatment baseline dual absorptiometry (DEXA scan), with frequent long-term surveillance being taken into consideration if the baseline results are aberrant. When dietary calcium consumption is insufficient to meet 1300 mg/day, supplementation with calcium is advised. Vitamin D, weight-bearing activity, diet, and quitting smoking are all advised. Denosumab, vitamin D, and bisphosphonates are used to treat osteoporosis.

Altered self-image:

After having their reproductive organs surgically removed, several survivors described feeling incomplete and having a mistrust of their bodies, that impactstheir sense of self-worth, womanhood, and relationships (17).



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Overall, younger survivors had worse ability to adapt, a worse body image, and more unmet needs than older survivors following treatment, which appeared to be mostly brought driven by worries about infertility.

Psychological and emotional needs:

Fear and worry about recurrence, concerns about their family, anxiety, depression, stress, PTSD are commonly observed in cancer survivors. Almost 30% of patients developed acute stress disorder and 41% experienced PTSD. About half of the patients reported fear of recurrence in a survey 17 followed by stress, anxiety and depression in 23.4% participants. The importance of personal communication with healthcare professionals is pivotal to successful adjustment of these survivors and their understanding of recurrence.

Occupational and social support:

Reduced confidence, difficulty concentrating, fatigue etc. often bar these cancer survivors from joining their job. The need for continued social support is very critical for survivors having an urge to connect with similar survivors.

Conclusions:

Because having a history of cancer requires establishing an entirely new balance, the completion of cancer treatment does not mark the end of the cancer experience. In order to create effective, individualized survivorship care, it is critical that we first identify the main survival problems of gynecologic cancer survivors. Therefore, patients require and merit individualized survivorship care that caters their specific circumstances. Personalized survivorship programs have the potential to revolutionize survivorship care, much as focused molecular medicines and precision medicine have changed the landscape of cancer therapy.

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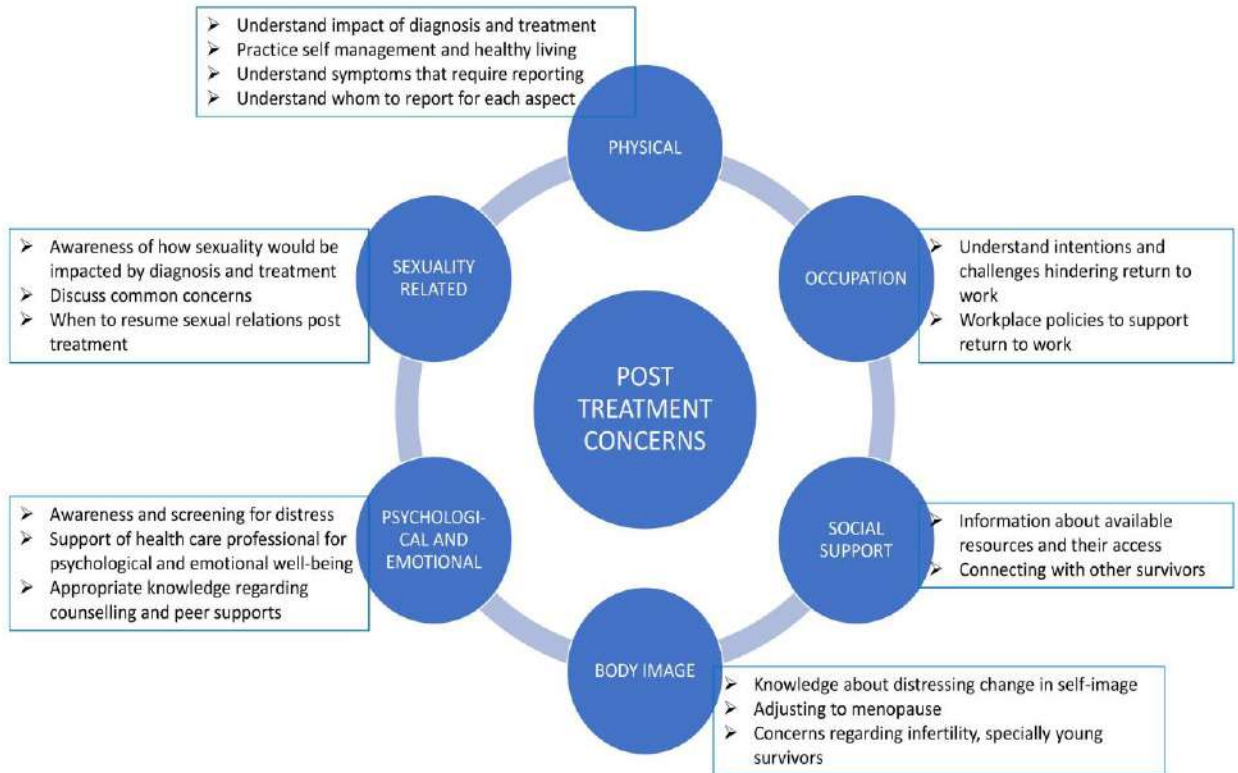


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SURVIVORSHIP IN GYNECOLOGICAL CANCERS





MRI OF CRANIAL NERVES

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The cranial nerves (TA: nervi craniales) are the twelve paired sets of nerves that arise from the brain or brainstem and leave the skull through cranial foramina. The cranial nerves are numbered one to twelve, using Roman numerals, i.e. I to XII. Most of them have their cranial nerve nuclei located in the brainstem.

Visualisation of cranial nerves in routine clinical practice can be challenging as most of them are quite small and difficult to appreciate on CT scan. Within the brain, the nerves are readily appreciated in the cisternal portion as the nerves here are surrounded by CSF. [1] As the nerves exit the skull, their location can be implied by knowledge of normal anatomy, but due to the complicated anatomy of the base of the skull and head and neck, visualizing these small structures is challenging on all imaging modalities.

For proper visualization of cranial nerves, MRI is better. Fast imaging employing steady-state acquisition (FIESTA) / constructive interference in steady-state (CISS) sequences of MRI are usually chosen for visualization of cranial nerves [2]

Imaging the cranial nerves as they pass from the brain to their respective foramina is best achieved

with high-resolution high-T2-contrast sequences that can, ideally, be reformatted in other planes (e.g. various implementations of steady-state sequences: steady-state free precession (SSFP), FIESTA or CISS). The cranial nerves appear as dark structures surrounded by high-signal intensity CSF.

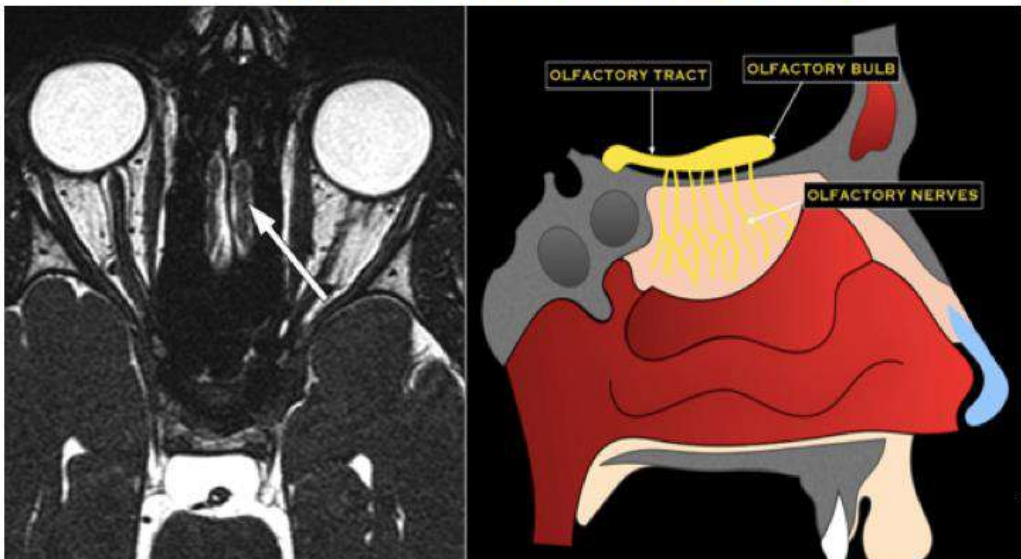
Locations of the Cranial Nerves	
LOCATION	NERVES
Anterior of Brain (Front of Brain)	1, 2
Midbrain	3, 4
Pons	5, 6, 7, 8
Medulla	9, 10, 11, 12

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<https://mrimaster.com/anatomy%20brain%20cranial%20nerves.html>

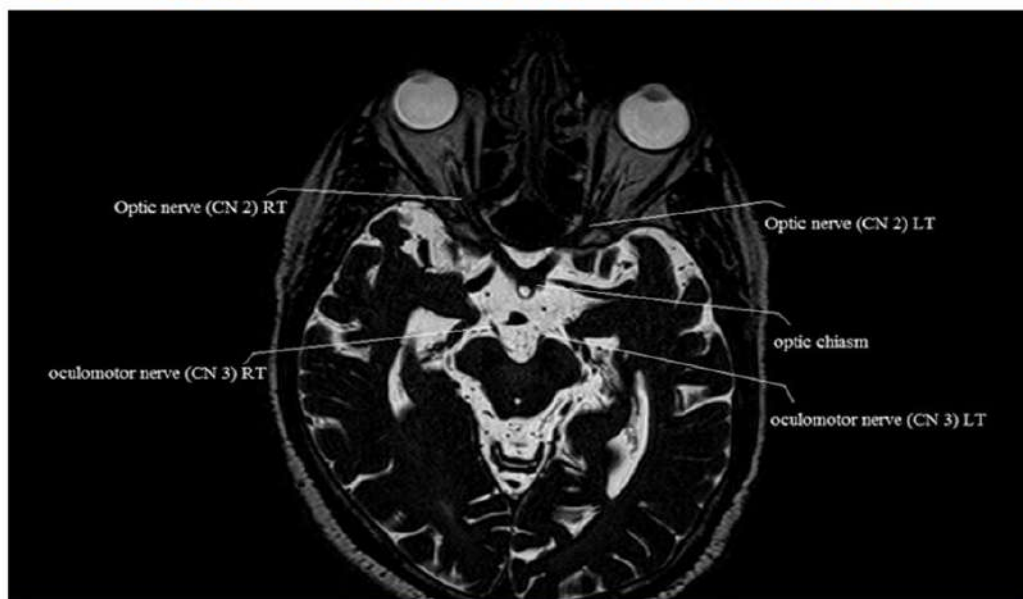


MRI OF CRANIAL NERVES

1ST CRANIAL NERVE



2ND & 3RD CRANIAL NERVE



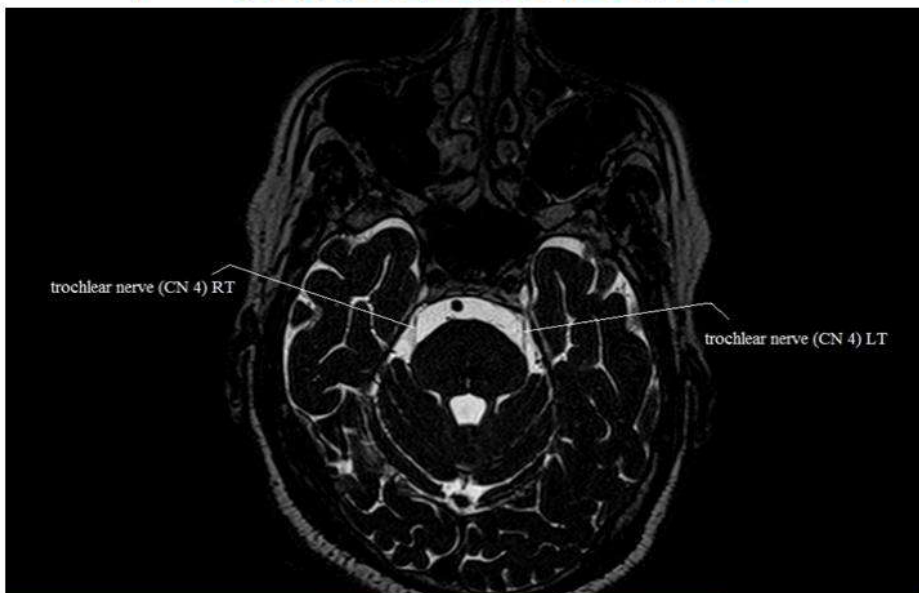


MRI OF CRANIAL NERVES

3RD CRANIAL NERVE



4TH CRANIAL NERVE





MRI OF CRANIAL NERVES

5TH CRANIAL NERVE



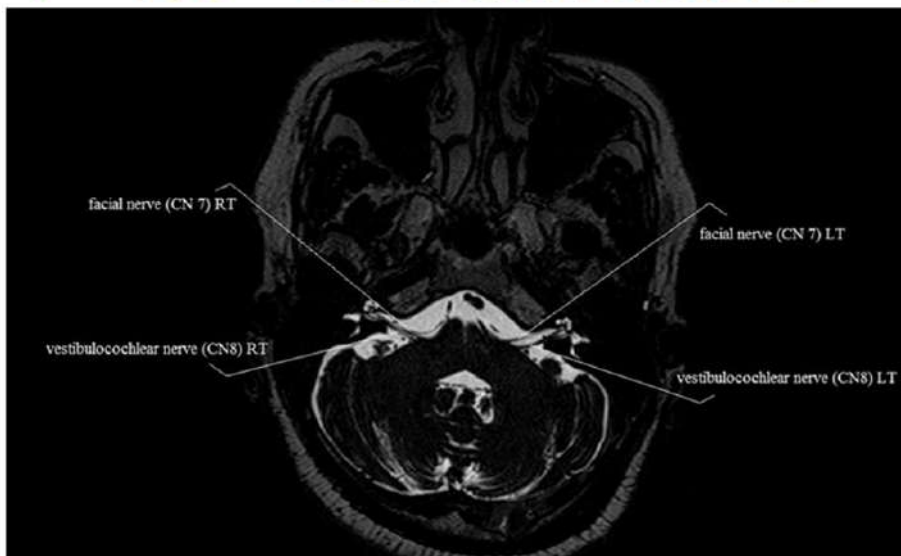
6TH CRANIAL NERVE



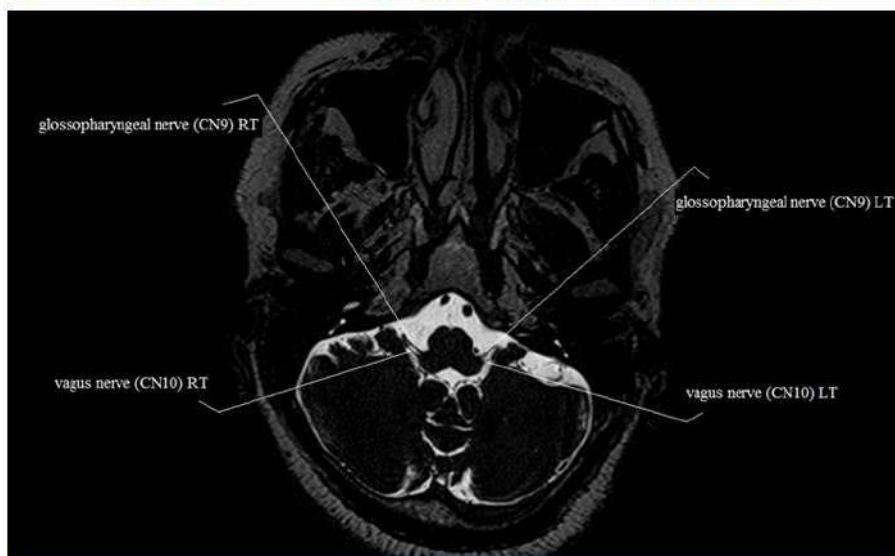


MRI OF CRANIAL NERVES

7TH & 8TH CRANIAL NERVE



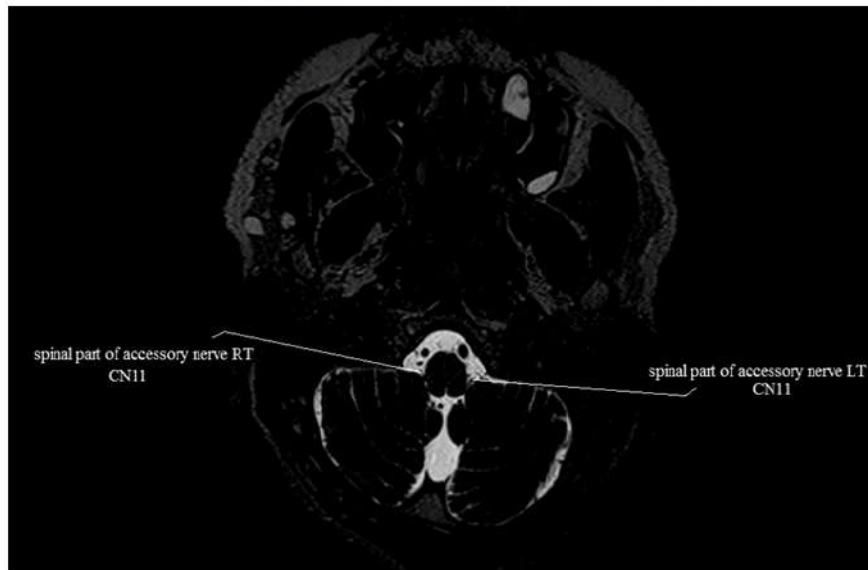
9TH & 10TH CRANIAL NERVE



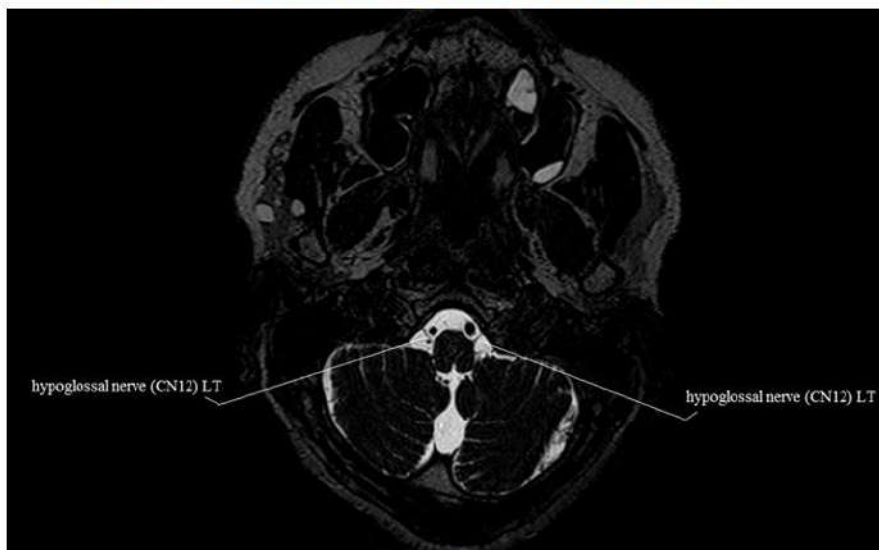


MRI OF CRANIAL NERVES

11TH CRANIAL NERVE



12TH CRANIAL NERVE





CHARTING THE COURSE: NAVIGATING THE CHALLENGES AND EMBRACING THE AI REVOLUTION IN RADIATION ONCOLOGY

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Artificial intelligence (AI) is poised to transform the field of Radiation Oncology, offering solutions to some of the daily challenges faced by Radiation Oncologists: Contouring and Treatment planning. This brief article will provide an overview of AI integration with Radiation Oncology.

Challenges with Contouring & Treatment Planning

Contouring is time-consuming and subjective, leading to inter- and intra-observer variation. This variability can impact treatment outcomes and is highly dependent on the expertise and experience of the Radiation Oncologist. Similarly, treatment planning depends on the expertise and platform familiarity of the Medical Physicist. In a high-volume tertiary care centre, both aspects can lead to prolonged patient waiting times.

Pitfalls of Existing Auto-Contouring & Auto-Planning

Auto-contouring in some form has been available from LINAC vendors for quite a long time. However, a key difference remains that they have been powered by atlas-based algorithms, which were suboptimal in performance compared to expert contours. Similarly, Auto-Planning based on pre-specified plan priorities and optimisation weights has been available yet has never been fully adopted by Medical Physicists.

Integration of AI with Auto-Contouring

Until recently, the promise of more accurate and consistent contouring for target volumes and critical structures seemed impossible. Recent deep-learning-based AI approaches can reduce the variability and time required for contouring. To realise the full potential of deep-learning AI, integration into the workflow from contouring to treatment planning can be implemented. This relies heavily on high-quality contoured data for training and fully specified plan details. This may only sometimes be readily available and remains the most significant hurdle towards moving forward. Ongoing research and refinement will be needed to realise the full potential of AI, which may improve departmental efficiency, accuracy, and standardisation besides facilitating inter-departmental collaboration.

Challenges with AI and Auto Contouring

One significant challenge is the availability of diverse and high-quality training data. Obtaining this data for training AI algorithms can be time-consuming and requires manual expertise. Generalizability is another concern, as AI models need to demonstrate high performance on diverse patient populations and anatomical sites. Achieving high accuracy and consistency, especially in complex cases, remains a challenge that will require more research



CHARTING THE COURSE: NAVIGATING THE CHALLENGES AND EMBRACING THE AI REVOLUTION IN RADIATION ONCOLOGY

Integration of AI with Routine Radiation Oncology Workflow

AI and auto contouring must seamlessly integrate into the routine radiation oncology workflow and planning systems for successful implementation. The user interface of AI systems should be user-friendly, intuitive, and amenable for easy integration. This will require LINAC vendors to provide open and free access to Application Programming Interface (API) with necessary safeguards.

Radiation oncologists should be able to review, modify, and incorporate their expertise into AI-generated contours, and the algorithms will need to learn from the changes made. Additionally, gaining trust and acceptance from healthcare professionals is crucial. Clear communication and collaboration between AI developers and radiation oncologists will be essential to address concerns, explain limitations, and build confidence in AI.

The Road Ahead

As the field of radiation oncology continues to evolve, the integration of artificial intelligence (AI) holds immense potential for enhancing patient care and treatment outcomes. The road ahead involves efficient data collection and management. In our experience, Electronic Health Record (EHR) integration with our planning systems will not yield the desired results. The structure of EHR systems is

incompatible with the structured data required to build robust models, and we have developed a solution to address this issue (www.medpylabs.in).

We envision collaboration among radiation oncologists, data scientists, and AI developers will be vital for realising the full potential of AI in radiation oncology. We can address the unique challenges and complexities of implementing AI in clinical practice by working together. To fully embrace the opportunities presented by AI, radiation oncologists must be proactive in adopting and integrating these technologies into their daily practice. This requires a mindset shift towards embracing technology as a valuable tool rather than a threat.

Ethical considerations and regulatory frameworks are also essential in shaping the future of AI in radiation oncology. Ensuring patient privacy, data security, and algorithmic transparency are paramount. Clear guidelines and regulations must be established to address ethical concerns, prevent biases, and safeguard patient safety.

In conclusion, the opportunities for improving patient care and treatment outcomes will depend on efficient data collection, collaboration, integration into the routine workflow, and attention to ethical considerations. By embracing AI and actively participating in its development and implementation, Radiation Oncologists can shape the future of our field rather than wait for divine intervention.



Conferences



6TH AROI - ESTRO GYNEC TEACHING COURSE

INDO AMERICAN CANCER HOSPITAL, HYDERABAD, 16TH – 19TH MARCH 2023
DR. HARJOT KAUR BAJWA

The 6th AROI ESTRO Gynec teaching course was organized by the department of Radiation Oncology, Indo American Cancer Hospital, Hyderabad from 16th to 19th March 2023. The theme of the course was 3D Radiotherapy with a special emphasis on implementation of CT/MRI based brachytherapy in Carcinoma Cervix. The course was aimed to refine the concepts of image guided brachytherapy and emphasize on the reporting parameters and develop protocols for future research.



It was a grand academic extravaganza that had 98 participants from India and abroad. This scientific

program was organized under leadership of AROI ESTRO course directors Prof Dr Umesh Mahantshetty, Prof Remi Nout and Prof Kari Tanderup. Esteemed faculties of this program were Dr Primoz Petric and Dr Christian Kirisits from Europe

The AROI President, Prof Dr Manoj Gupta, inaugurated the event and enlightened the delegates with his talk on radiobiology of brachytherapy. The esteemed national faculty were Dr G Lavanya, Dr Abhishek Basu, Dr Ajeet Gandhi, Dr M Raviteja, Yogesh Ghadi, Dr Arun S Oinam and K K Sreelakshmi. The organizing chairman was Dr A Krishnam Raju and the organizing secretary was Dr Harjot Kaur Bajwa.

The delegates had a hands on experience of CT and MRI based brachytherapy contouring and planning across different stages of carcinoma cervix. The advanced track participants shared their experience of successful implementation of image based brachytherapy after attending the past AROI ESTRO Gynec courses. The scientific sessions were well structured to cover different clinical environments in different centres and the delegates made the most of it by interacting with the faculty.



Conferences



ICRO PRODVANCE 2023 (EAST ZONE) TARGETED THERAPY/IMMUNOTHERAPY CONCURRENT WITH RADIATION

SCI - IGIMS, PATNA, 1ST – 2ND APRIL 2023 – DR. RAJESH KUMAR SINGH

ICRO PRODVANCE 2023 (East Zone) course was held on the 1st and 2nd of April 2023 at State Cancer Institute, Indira Gandhi Institute of Medical Sciences, Sheikhpura, Patna-14 under the supervision of Prof. (Dr.) Rajesh Kumar Singh (Program Director), Dr. Dinesh Kumar Sinha & Dr. Richa Madhawi (Program Coordinator). The theme of the course was “Overview of Targeted Therapy/Immunotherapy Concurrent with Radiation”.

The comprehensive coverage of all aspects of the program was done with special emphasis on the emerging role of high-precision techniques and Stereotactic Body Radiotherapy.

It was an intense academic feast overseen by the office bearers of AROI and ICRO namely Prof (Dr.) S. N. Senapati (President-Elect., AROI), and Dr. Gautam Kumar Sharan (Secretary, ICRO) including eminent national faculty Dr. Abhishek Basu, Burdwan Medical College, Burdwan, Dr. Gautam Kumar Sharan, JNCH & RC, Bhopal, Dr. Sambit Nanda, TMC, Varanasi, Dr. Sayan Pal, Apollo Cancer Centre, Kolkata, Dr. Cessal T Kainickal, RCC Thiruvananthapuram, Dr. Vikas Jagtap, NEIGRIHMS, Shillong, Dr. Bhawna Dubey, Hyderabad, Dr. Rakesh Kapoor, PGI, Chandigarh, and various other esteemed speakers.



Conferences



27TH ANNUAL CONFERENCE AROI– NORTH ZONE

AIIMS, RISHIKESH, 7TH – 9TH APRIL 2023 - DR. MANOJ GUPTA/DR. SWEETY GUPTA

The 27th Annual Conference of Association of Radiation Oncologists of India – North Zone was successfully conducted from 7th to 9th April 2023 at Main auditorium of All India Institute of Medical Sciences Rishikesh. The conference was organised by AIIMS Rishikesh in collaboration with Cancer Research Institute, HIMs, Dehradun under the leadership of Organising Chairperson Prof Manoj Gupta (AROI- President). Co-organising Chairperson was Prof Meenu Gupta, organising secretary Dr Sweety Gupta, co organising secretary Dr Viney Kumar, scientific committee chairperson Dr Deepa Joseph and Dr Vipul Nautiyal along with team of residents.

The program was inaugurated in presence of esteemed chief guest Honourable Ritu Khanduri Bhushan, Honourable speaker of Uttarakhand assembly, and other dignitaries. The inauguration ceremony was concluded by the release of conference souvenir which included messages from the AROI members, organising committee, faculty presentations and abstracts from delegates and budding radiation oncologists.

The conference preceded by workshop on “Target Volume Delineation in Head & Neck Cancer”. It was a panoramic compilation of all subsites in head and neck cancer by the experts and attended by more

than 60 delegates. This year’s conference theme was “Evidence based practice in Oncology, Radiation Oncologist’s Perspective”. The B.D Gupta Oration was delivered by Prof Sushmita Ghoshal from PGIMER Chandigarh. More than 120 faculties and stalwarts of radiation oncology from across the nation graced the conference and delivered lectures and debates, shared their clinical experience. The conference was attended by more than 300 young oncologists and delegates all around the country, who had actively participated in paper presentation and quiz competition. Around 74 abstracts were submitted and judged under 4 categories: head and neck, thoracic, abdomino-pelvic malignancies and recent advances. All the submissions were considered for oral presentation.

The conference concluded with interesting Quiz competition and valedictory function. Attractive prizes were awarded to winners for paper presentation and quiz winners. The academic platform provided an opportunity to the residents and young faculty to present their original research and interact with the peer group for future research. The conference ended with tremendous positive response from all the attending faculties and delegates.



Conferences



20TH AROI - ICRO RADIOBIOLOGY TEACHING COURSE (NORTH ZONE)

SRMSIMS, BAREILLY 15TH APRIL 2023— DR. PIYUSH KUMAR

The 20th AROI-ICRO Radiobiology teaching course (North Zone) 2023 was successfully conducted at Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly on 15th April 2023. The course director was Prof. Manoj Gupta (National President (AROI) and Head of the Department of Radiation Oncology, AIIMS Rishikesh) and the course coordinator was Dr. Piyush Kumar (Head, Department of Radiation Oncology, SRMSIMS).

This unique radiobiology teaching course was conducted from morning 9:30 am to 5:00 pm in the evening. The course was divided into five modules, starting from the basics concept-building lectures to the radiobiology aspect of IMRT, stereotactic radiotherapy, and re-irradiation followed by practical applications of these radiobiological principles. Throughout the session, the residents interacted and clarified their doubts with Prof. Manoj Gupta.

In the afternoon a short inauguration ceremony was held where the chief guest was Shri Dev Murti (Chairman SRMS Trust) which was also attended by other dignitaries of the institute- Shri Aditya Murti (Director Administration, SRMS Trust), Dr. M. S. Butola (Principal SRMSIMS) and Dr. R. P. Singh (Medical Superintendent, SRMSIMS) along with other

institute faculties and delegates. Programme was started by Garland of Maa Saraswati and Lamp lighting followed by felicitation of Prof. Manoj Gupta. The inaugural ceremony was coordinated by Dr. Ayush Garg (Assistant Professor, Department of Radiation Oncology, SRMSIMS)

The radiobiology teaching course was attended by 60 residents from 12 medical colleges of North India including the host institution. The various medical colleges from where the PG students came were IGMC Shimla, MAMC Delhi, KMNH Prayagraj, JKCI Kanpur, Batra Hospital Delhi, AMU Aligarh, SNMC Agra, Medanta Gurugram, KGMC Lucknow, Dr. RMLIMS Lucknow and MPMCC Varanasi.

The session concluded with an overwhelmingly positive response from the residents, who expressed their gratitude towards Prof. Manoj Gupta for his tireless effort and unique teaching style. Dr. Piyush Kumar delivered a vote of thanks in the valedictory function and the certificates were distributed to all resident delegates who attended the course by Prof. Manoj Gupta, Dr. M. S. Butola and Dr. R. P. Singh. Overall, it was a successful and memorable session that left the attendees feeling motivated and inspired.



Webinar



22ND FARO – AROI WEBINAR

26TH APRIL 2023– DR. VIKAS JAGTAP

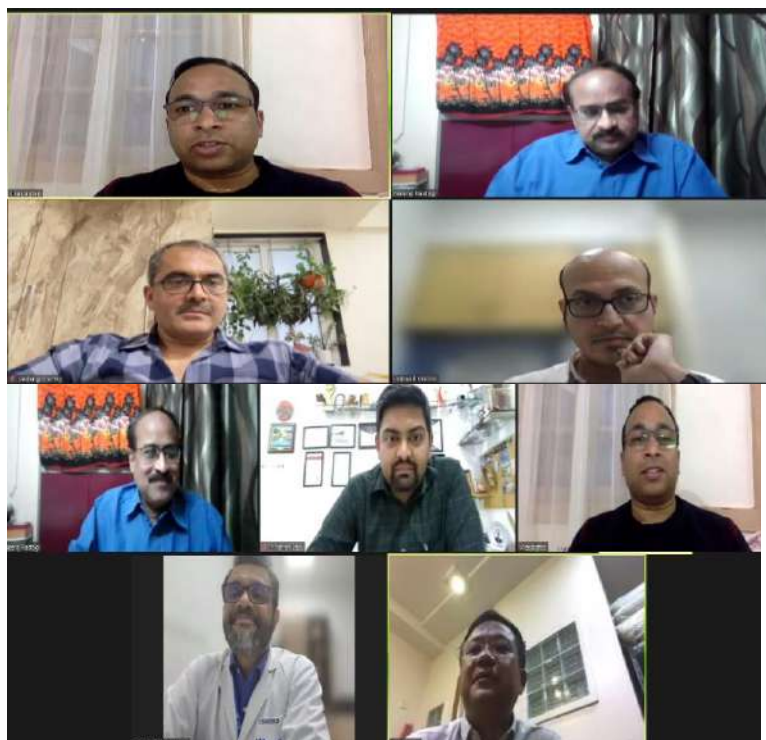


The 22nd FARO - AROI webinar was successfully conducted on 23rd April 2023 (6:00 – 8:00 PM IST). The webinar was hosted by AROI. The webinar

concentrated on interesting topic of 'Radiotherapy in Prostate Cancer : Dilemmas and Controversies'. The webinar was hosted with opening remarks from Dr. Munish Gairola (RGCI, New Delhi & FARO ETC member). Dr. Yasushi Nagata, (FARO Secretary General) & Dr. Rajesh Vashistha (India) (FARO Vice President & AROI – President) greeted the webinar

Prof. Vedang Murthy(TMH, Mumbai) elaborated on Elective Nodal irradiation in Prostate Cancer, Dr. Indranil Mallick (TMC, Kolkata) gave enlightening talk on Practical Implementation of Hypo-fractionated Radiotherapy in Prostate cancer & Dr. Kausik Bhattacharya (AIG Hospital, Hyderabad) moderated the interactive Panel Discussion with Dr. Neeraj Rastogi (SGPGI, Lucknow), Dr. Trinanjan Basu (HCG Cancer Centre, Mumbai) & Dr. Lay Aung (Yangon General Hospital – Myanmar) as panellist.

More than 270 Participants attended the webinar with participation from various FARO member organisations. The webinar was co –ordinated by Dr. Vikas Jagtap (NEIGRIHMS, Shillong FARO ETC Member). AROI sincerely thank Sun Pharma for academic support by supporting the webinar providing the zoom link for the webinar



Conferences



43RD ICRO SUN PG TEACHING COURSE ON GYNECOLOGICAL CANCERS, VARANASI

MPMMCC & HBCH , VARANASI 6TH – 7TH MAY 2023– DR. SATYAJIT PRADHAN

Gynaecological cancers include diverse group of cancers including cervical, endometrial, ovarian, vulval and vaginal malignancies. It is one of the commonest group of malignancies affecting around 1,94,956 females in India, every year. Treatment consists of multimodality approach including Radiation therapy, Chemotherapy, and Surgery. Histopathology of majority of Cervical, Vaginal and Vulval malignancies is Squamous cell carcinoma, where radiation therapy plays a definitive and pivotal role in providing complete cure. Apart from this, it also has shown a promising role in increasing the local control rates in adjuvant setting in select endometrial cancer patients. Radiation therapy in Gynaecological cancer consisting of Teletherapy and Brachytherapy (where indicated) is vital for achieving cure in these patients.

The 43rd ICRO SUN PG Teaching Course on Gynaecological Cancers was held in Varanasi or Benaras (also known as Kashi) which is one of the oldest living cities in the world. It was hosted by Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) and Homi Bhabha Cancer Hospital (HBCH), Varanasi which are the Varanasi Units of Tata Memorial Centre, Mumbai (Grant-in-Aid Institution of Department of Atomic Energy, Government of India). Both MPMMCC & HBCH were formally inaugurated by Hon'ble Prime Minister, Shri Narendra Modi Ji on Tuesday, the 19th February 2019. Between the two hospitals MPMMCC & HBCH, there are 531 beds which provide comprehensive and high-quality affordable cancer care at the doorsteps of patients of Varanasi (Uttar Pradesh), its neighbouring districts and adjoining States. Dr Satyajit Pradhan was the Program Director, and Dr Abhishek Shinghal was the Program Coordinator for this event from the host

institute. The course focussed on to provide participants with an in-depth insight into evaluating and managing these malignancies with special emphasis on radiation therapy and techniques of brachytherapy.



The course was attended physically by 62 Post Graduate students from across the country and online by 70 overseas participants from Bangladesh, Malaysia, and Indonesia. This course extensively covered all clinical aspects with in a nutshell regard to Anatomy, Radiology, Pathology, Role of Surgery and Chemotherapy in Gynaecological cancers. Apart from this, it imparted exhaustive teaching on indications, techniques and management of complications of Radiation therapy, Role of HPV Vaccination, Radiobiology of Brachytherapy. This program was graced by the august presence of National dignitaries of AROI: Chair Dr Rajesh Vashishtha, President Dr Manoj Gupta, and President Elect Dr SN Senapati, and of ICRO: President Dr Rakesh Kapoor and Secretary Dr Gautam Sharan. Apart from this the course had the presence 16 Eminent faculties, with great expertise in Gynaecological cancer from across the country, who delivered lectures on the respective topics.

Conferences



43RD ICRO SUN PG TEACHING COURSE ON GYNECOLOGICAL CANCERS, VARANASI

MPMMCC & HBCH , VARANASI 6TH – 7TH MAY 2023– DR. SATYAJIT PRADHAN

The Course concluded with the ICRO QUIZ. The top two winners will be honoured with an award and free Registration, Travel and Accommodation for the next Annual National Conference - AROICON 2023. The Vote of Thanks was delivered by Dr Gautam Sharan on behalf of ICRO, and Dr Abhishek Shinghal on behalf of the host institute. The course ended on a good note and in due time with a lot of appreciation from the students attending Physically as well as via

Online mode. Thank you to all the participants and Faculty for making the conference an Interactive and Lively experience and a Grand Success. A big thank you to Dr Arvind Suri and entire team of SUN Pharma who managed the Logistics and delivered the Financial support in organizing this 43rd ICRO SUN PG Teaching Course on Gynecological Cancers at Varanasi.



Congratulations - Winners of Quiz session

First Prize

Dr Vanshika Rastogi,
Junior Resident,
SGPGI, Lucknow
Guide name : Dr Sushma Agrawal

Second Prize

Dr Manav Shah,
Junior Resident,
IMS BHU, Varanasi
Guide name- Dr UP Shahi

Conferences



1ST AROI - ESTRO HEAD AND NECK ONCOLOGY COURSE

TMH, MUMBAI, 25TH – 27TH MAY 2023 – DR. SARBANI GHOSH LASKAR

The 1st Teaching course was held at the Tata Memorial Hospital on 25-27th May 2023. The course this time was focussed on Oral cavity and Para Nasal Sinus Cancers. It consisted of both didactic and practical sessions.

There were 103 registrations, excluding 4 faculty from AROI: Dr S Ghosh Laskar, Dr Shaleen Kumar, Dr Cessal Thomas and Dr I Mallick. There were 3 faculty from ESTRO: Drs Jesper Grau Eriksen (Course Director, ESTRO), Daan Nevens and Christian Hansen. Dr. Srinivasan and Dr. Senapati represented the AROI Executive at the course. In addition, the other faculty were Oncologists from TMH and Medical physicists from TMH.

The first 2 days concentrated on the complete management of Oral cavity cancers from Epidemiology to general lectures on the management of sequelae of treatment, palliative care and follow-up. The sessions were adequate for interactive discussions on the topics that were presented. In addition, the practical sessions on the Educase homework allotted to participants were also well received.

The third day concentrated on Para Nasal Sinus tumours, practical demonstration using the Treatment Planning Systems and a Panel discussion. The practical demonstrations using the Treatment Planning Systems were the highlight of the day.



The event concluded with comments, responses and positive comments from the participants and faculty. The course allowed detailed discussion of the management of Oral Cavity cancers which is the major burden of Head and Neck Cancers in our country, bringing to light areas of debate and differences in opinion. An uncommon site like the Para Nasal Sinuses was also discussed and led to interesting discussions. The comments and inputs from the audience were constructive and will only improve the content and conduct of future courses.

I thank the AROI central body, administration at TMH, the Maharashtra Chapter of AROI, my entire team of Radiation Oncologists, students and secretarial assistants at the Institute, faculty from ESTRO and the delegates for the conduct of the course through the 3 days and hope to be able to live up to expectations and conduct an even better course next time.



Conferences



ICRO PRODVANCE 2023 (SOUTH ZONE)

HCG CANCER HOSPITAL, BANGLORE, 10TH-11TH JUN 2023— DR. SRIDHAR PS

The PROADVANCE 2023 South Zone, under the aegis of ICRO and AROI was held on 10th and 11th June at HCG cancer hospitals, Bengaluru by Course Director Prof. Dr. Sridhar P.S. on the topic 'Targeted Therapy/Immunotherapy Concurrent with Radiation'. It was conducted under the guidance of ICRO Chairman Prof. Dr. Rakesh Kapoor, AROI President Elect Prof Dr. Senapati and ICRO Secretary Dr. Gautam K Sharan and Secretary General AROI Dr.V Srinivasan. Prof. Lokesh, Prof. Dr. Ramesh S Bilimappa, Prof. Dr. G V Giri graced the occasion and inaugurated the session along with the Office Bearers. It was a two day interactive academic feast with 16 lectures by multi disciplinary faculty from across the country including Radiation Oncologists, Medical Oncologists and Radiologists. Dr. Senapati, Dr. Rakesh Kapoor, Dr. Shirley, Dr. Shashikala, Dr. Radheshyam Naik, Dr. Sayan Paul, Dr. Cessal T Kainickal, Dr. Susan Mathews, Dr. Govindarajan, Dr. Vikram Maiya, Dr. Anuradha, Dr. Srinivas, Dr. Saurabh Kumar, Dr. Gautam K Sharan and Dr. Bhawna Dubey graced the occasion and educated the students on

the basics of Targeted therapy/Immunotherapy and the applications in various malignancies in conjunction with Radiotherapy. A wide spectrum of topics including the basics of cell biology and genetics, proteins in cell communication, Targeted therapy/Immunotherapy drugs and their pathways, their interaction with radiation, and therapeutic cancer vaccines and their applications were elaborately discussed. The application and rationale behind the use of targeted therapy in various malignancies like Head and Neck cancers, Breast, Lung, Brain, GI, GU and Gynecological malignancies was very well explained. The topics on the management of immunotherapy and the related toxicities, and the response assessment after immunotherapy and the Commercial perspective of immunotherapy were very informative and relevant to day to day practice. On the whole, it was a well crafted programme on a relevant topic which is evolving at a very fast pace and was much appreciated by the participants.



Chapter Update



ODISHA STATE CHAPTER MEETING

REPORT BY - DR. SANJUKTA PADHI

A meeting of AROI - Odisha State Chapter was held at the auditorium of Acharya Harihar Post Graduate Institute of Cancer, Cuttack on 14.04.23 at 10am. Total 72 members were present. A scientific session was held from 10am to 2pm. Speakers from different parts of country participated in the meeting and presented scientific papers. Dr. Monali Swain, Dr. Sajal Kakkar, Dr. Susovan Banerjee, Dr. Sarthak Mohanty, Dr. Lincoln Pujari, Dr. Kanhu Chanran Patro delivered lectures.



The following office bearers are elected unanimously for the year 2023-2025.

1. Dr. Niharika Panda, President
2. Dr. Lucy Pattanayak, Vice-President
3. Dr. Sanjukta Padhi, Secretary
4. Dr. S.N. Parida, Joint Secretary
5. Dr. Sandeep Kumar Barik, Treasurer
6. Dr. Tapan Kumar Sahoo, Executive committee member
7. Dr. Soumya Ranjan Mishra, Executive committee member
8. Dr. Brahmanada Satapathy, Executive committee member

It was unanimously decided the following senior members as advisors.

1. Prof. U.N. Panda
2. Prof. K.B. Das
3. Prof. C.R. Nayak
4. Prof. B.K. Mohanty



Chapter Update



ODISHA STATE CHAPTER MEETING

REPORT BY - DR. SANJUKTA PADHI

Congratulations



Name : Prof. Dr. Niharika Panda
President AROI Odisha State Chapter
Professor, Radiation Oncology,
AHPGIC Mangalabag Cuttack 753007
niharika.panda@yahoo.com
9437487842



Name : Dr. Sanjukta Padhi
Secretary AROI Odisha State Chapter
Associate Professor, Radiation Oncology,
AHPGIC Mangalabag Cuttack 753007
drsanjuktapadhi@gmail.com
9437283032

34th Annual Conference of AROICON – UP Chapter 16th – 17th December, 2023 in Aligarh

Kindly provide the details of faculty members, senior and junior residents of your department for the purpose of invitation for the conference.

Department of Radiotherapy
JNMC, AMU, Aligarh
uparoicon2023@gmail.com

Sl. No.	Name	Designation	Contact	Mail ID	AROI Reg.

Chapter Update



BIHAR STATE CHAPTER MEETING

REPORT BY - DR. J K SINGH

A meeting of AROI – Bihar State Chapter was held at Scada Business Centre, Patna on 30/3/2023 for election of new office bearers. Dr. B. Sanyal, one of the senior most Radiation Oncologist of the country & director of MCS Patna conducted the election process as returning officer.

The following members are elected as new office bearer

1. President

- Dr. Rajiv Ranjan Prasad - 9065226979 / ranjan.drrajiv@gmail.com

2. Vice- President

- Dr. Shekhar Keshri - 9973043603 / shekharkeshri2010@gmail.com
- Dr. Pritanjali Singh - 9334931395 / drpritanjalis@gmail.com

3. Hon. Secretary

- Dr. Rajesh Kumar Singh - 9939088899 / drrajeshsingh@yahoo.com

4. Joint Secretary

- Dr. Vinita Trivedi - 9430510575 / drvinitatrivedi@gmail.com
- Dr. Anita Singh – 9334111925 /

5. Treasurer

- Dr. Kunal Kishore - 8800263844 / kkishor28@gmail.com

6. Executive Member's

- DR. Richa Madhavi - 9431186988 / drricha.madhavi@yahoo.in
- Dr. Sneha Jha - 9672217918 / drsneha@parashospitals.com
- Dr. Nilesh Manu-
- Dr. Dinesh Kumar Sinha - 9771433132 / drdineshkumrsinha@gmail.com
- Dr. Mukesh Kr. Bharti - 8578001971 / drmukeshkumarbharti@gmail.com
- Dr. Reeta Rani - 9334088632 / drritarani@yahoo.com
- Dr. Ravi Byahut - 9798213589 / ravibyahut13@gmail.com

7. Advisors

- Dr. Abhishek Kumar - 7976860613 / abhshek.12goyal@gmail.com
- Dr. Vidyanand Pd. -

8. Chief Editor

- Dr. Richa Chauhan - 8002226696 / Chauhan richa@outlook.com

9. Editorial Board

- Dr. Usha Singh - 9431942624 / drushasingh69@gmail.com
- Dr. Shardha Raj -
- Dr. Kanchan -



FELLOWSHIP INDIAN COLLEGE OF RADIATION ONCOLOGY

DR. GAUTAM SHARAN (SECRETARY – ICRO)

Guidelines and Instructions for nomination of candidates

An individual elected as a Fellow of the Indian College of Radiation Oncology is expected to:

- a) Stand out among peers in the profession as a person of distinction at the national/international level.
- b) Have distinguished himself/herself in the profession:
 - i. as a physician in his / her specialty; and/or
 - ii. in service to Medicine in patient care, teaching, public health work and/or health administration.

The Eligibility Criteria for the Fellowship of Indian College of Radiation Oncology:

1. Founder Members of the ICRO
OR
 2. Membership of the ICRO for at least 5 years and possessing more than 15 years of experience after post-graduation.
- A. Founder members are automatically eligible for award of the Fellowship, subject to submission of Application and the payment of the Admission Fees for the Fellowship. (Fellowship Fees-Rs 7800/- Includes the GST)
 - B. For other than Founder Members, Application needs to be submitted and after Election as a Fellow, a communication will be sent to the Elected Fellows for depositing the Admission Fees for the Fellowship, by the due date as per the communication.
 - C. Fellowships will be awarded after the receipt of the Admission Fees.

Format of the Application Form and the Instructions can be downloaded from the AROI Website. A soft

copy of the application is to reach Dr. Gautam Sharan Secretary ICRO, through e.mail (secretaryicro@gmail.com) so as to reach him not later than 12 midnight of 30th Jun 2023. A hard copy of the application along with all supporting documents is to reach the Secretary, ICRO (Address given in the application form) at the earliest but not later than 10th July 2023. The applications will be valid for a period of 2 years (The current year, if received by deadline, and for the subsequent year). Late applications will be considered only for the Election of Fellows for the subsequent year.

Admission Fees for ICRO Fellows:

Rs 7800/- (Rupees Seven Thousand and Eight hundred only. This includes GST), through DD / Online Bank Transfer to "AROI-ICRO",
Name of A/C: AROI-ICRO
Bank: State Bank of India
Bank Address: Millerganj, Ludhiana, Punjab-141001
Account No: 30619770736
IFSC: SBIN0000731
Type of Account: Savings

The Nominees are to be Proposed and Seconded by Members of AROI of GOOD STANDING of FIFTEEN YEARS duration. The PROPOSERS AND SECONDER MUST BE ICRO MEMBERS.

Soft copy of the Application must reach the Secretary, ICRO by midnight of 30th June of the year of Election, with a copy to the Chairman, ICRO. Documentary evidence of all Statements/Experience/Awards must be attached to the HARD COPY of the Application and is to be sent to the Secretary, ICRO so as to reach him/her on or before 10th August of the year of Election.

The attention of the Proposer and Secunder making the nomination is invited to the Guidelines and Instructions laid down for the purpose.



FELLOWSHIP INDIAN COLLEGE OF RADIATION ONCOLOGY

DR. GAUTAM SHARAN (SECRETARY – ICRO)

1. The Proposer and Secunder nominating the candidate should certify from personal knowledge the professional and scientific standing/achievements of the candidate
2. Every candidate shall be proposed and seconded by a statement in writing signed by at least two Life Members of AROI of GOOD STANDING of FIFTEEN YEARS duration. The PROPOSERS AND SECONDEES MUST BE ICRO MEMBERS.

INSTRUCTIONS

1. Five copies each and a CD/DVD of the following documents must accompany the application for nomination.
 - i. A precise statement limited to 120 words on nominee's professional and scientific standing/ achievements which form the basis for nomination signed by proposer/secunder.
 - ii. Information as per format prescribed, duly completed. Follow the same section numbers in their submission as in the nomination form avoiding reference to enclosed appendices.
 - iii. List of publications:
 - a) Two separate lists of publications i.e. one in Journals included in Medical Databases, Medical Literature analysis and retrieval system (Medlar) etc. and other one in Journals, not included in medical database but published in Journals of National Societies/Professional Associations.
 - b) Be written in chronological order and should include (1)

Names and initials of all authors, (2) Title of article, (3) Title of publication abbreviated, (4) Volume number, (5) First and last page number, (6) Years of publication.

- c) Reference to books should include: (1) City of publication (2) Name of Publisher (3) Year of Publications.
- d) Abstracts and Proceedings of Conferences etc. should not be included in the list of publications.

2. Five copies each of six published papers considered to be best by the proposer. The Citation Index of six best published papers of the nominee and Average Impact Factor of the Journals in which the six best papers have been published may also be provided along with nomination for Fellowship. (Impact factor of the Journal in the year of publication of the concerned article).

The under-mentioned guidelines may also please be noted in this connection:

1. Only Life Members of AROI of GOOD STANDING of FIFTEEN YEARS duration and who are ICRO Members can Propose or Second the Nominee.
2. A Member may not propose more than three names for Fellowship in a year. He/ She may, however, second any number of proposals.
3. The candidate shall be Indian citizen. Exceptionally a foreign national who may have done outstanding work in India or for India in his/her own country may be considered.

Note: Nominations which are either incomplete or not according to the prescribed format will not be processed.



FELLOWSHIP INDIAN COLLEGE OF RADIATION ONCOLOGY

DR. GAUTAM SHARAN (SECRETARY – ICRO)

<u>Chairman, ICRO</u>	<u>Secretary, ICRO</u>
Dr. RAKESH KAPOOR Prof & Unit Head Deptt. of Radiotherapy & Oncology. Tertiary Cancer Centre, PGIMER, Chandigarh. Professor In-charge Procurement Equipment Purchase, PGIMER. Chairman Indian College Of Radiation Oncology. Founder Director Homi Bhabha Cancer Hospital & Research Centers Punjab (Unit of T.M.C, Mumbai) D.A.E. (Govt of India) Email: : drkapoor.r@gmail.com , Inst. Email : kapoor.rakesh@pgimer.edu.in	Dr. Gautam K. Sharan Medical Director HOD & DNB Coordinator, Radiation Oncology Jawaharlal Nehru Cancer Hospital & Research Centre, Idgah Hills, Bhopal- 462 001, MP, INDIA E.mail: secretaryicro@gmail.com dr.gautamsharan@gmail.com

FOR ELECTION OF ICRO FELLOW, AN OVERALL ASSESSMENT IN ALL SPHERES WILL BE DONE AND VARIOUS CRITERIA WILL BE CONSIDERED AND NOT ONLY EXCELLENCE IN ONE PARTICULAR SPHERE ALONE.



Secretary – ICRO
Dr. Gautam Sharan



Vice Chairman – ICRO
Dr. Mahdup Rastogi



Chairman - ICRO
Dr. Rakesh Kapoor

AROI

Fellowships/Best Papers



APPLICATIONS INVITED FOR: FELLOWSHIPS/ GRANTS/ BEST PAPERS

S.No .	Name of Fellowship	No' s	For	Age Group	Fellowship Grant (in Rs)	Basis	Member of AROI For #/yrs.	Min Papers	Regularly Attending AROI conferences	Already availed fellowship in the past
1. Overseas										Then weightage to be given To those who have not Availed any Fellowship (or Any other Candidate is not available)
1.1	AROI Fellowship	1	Radiation Oncologist	>50	1.5 Lakhs	MD/DNB	20	5	Yes	
1.2	AROI Fellowship	2	Radiation Oncologist	41-50	1.5 Lakhs	MD/DNB	10	5	Yes	
1.3	AROI Fellowship	3	Radiation Oncologist	35-40	1 Lakh	MD/DNB	5	3	Yes	
1.4	AROI Fellowship	3	Radiation Oncologist	30-35	1,00,000	MD/DNB		3	Yes	
2. Within India										
2.1	AROI Fellowship	1	Medical Physicist	<40	30,000	DRP/MSc(MP)	2	BASED ON THERESUME AND INTERVIEW ATTHE CONFERENCE & PREFERENCE GIVEN TO PAPER PRESENTERS	Yes	
2.2	AROI Fellowship	1	Radiation Oncologist	< 35	30,000	MD/DNB	3			
2.3	AROI Fellowship	1	RT Technologist	<45	15,000	AERB Certified	Yes			No
2.4	Neil Joseph Fellowship	6	Radiation Oncologist		20,000	Student MD/DNB	Yes	RESUME AND INTERVIEW		

3.1	Best Proffered Paper for Senior Members	1	Radiation Oncologist	>40 - ≤50		Post MD/DNB >10 Yr.	10-15 years	
3.2	Best Proffered Paper for Senior Members	1	Radiation Oncologist	35-≤40		Post MD/DNB 5-10 yr.	5-10 years	
3.3	Dr. G.C. Pant Young Doctor Award	1	Radiation Oncologist Post MD/DNB	<40	30,000 For fellowship	Post MD/DNB 3 yrs.	3 years	
3.4	Dr. M S Gujral Gold Medal	1	Doing MD/DNB		15,000+Medal		Yes	
3.5	Dr. M C Pant Gold Medal	1			10,000+Medal		Yes	
3.6	Gold Medal Medical Physics	1	Physicist/Radiation oncologist with physicist	<30	10,000	DRP/MSc in Med. Physics	Yes	

AROI

Fellowships/Best Papers



APPLICATIONS INVITED FOR: FELLOWSHIPS/ GRANTS/ BEST PAPERS

Procedure for Application:

1. Applicants have to send a copies of date of birth certificate, the publications mentioned under each Fellowship and Self-certified proclamation that they are working full time in radiotherapy (soft and hard copy both)
2. Fellowship amount will be given to candidates after 15% tax deduction.
3. All the applications for fellowship/ best paper awards be sent along with the full paper and the letter from head of department/ institute to the office of Secretary General AROI by 5 PM, 30 June 2023.
4. No Objection certificate from their head of Department if selected to go for 4weeks fellowship. Fellowship must be completed before August 2024.
5. PG Students shall send recommendation for presenting best paper through Head of the Department.
6. For best paper NOC for publication in JCRT (if selected). PG students should approach for best paper through their HOD/guide.
7. For fellowship more than 35 years age category should be ICRO member.
8. Mailing address and details -
 - a) Dr. V Srinivasan: secretaryaroi@gamil.com , vsrinivasan09@gmail.com
 - b) Dr. Manoj Gupta : presidentaroi.manoj@gmail.com

Dr V Srinivasan
Secretary General AROI
HOD-Radiation Oncology,
MIOT International Hospital
No.4/112, Mount Poonamallee Road
Manapakkam, Chennai- 600089, TN

Applications

AROI National Conference &

AROI – ICRO / AROI - ESTRO courses



APPLICATIONS INVITED FOR AROI NATIONAL CONFERENCE AND AROI-ICRO / AROI – ESTRO COURSES

Application should come through Zonal / State Chapter

2024 & 2025 Best of ASTRO

2024 & 2025 AROI – ICRO SUN Proadvance Courses

Zone wise

- 1. North (U P Chapter, North Zone)**
- 2. South Zone (Kerala , Karnataka, TN & Pondicherry Chapter, AP Chapter)**
- 3. East Zone (West Bengal , Bihar , Odisha , North East Zone)**
- 4. West Zone (Rajasthan Chapter , Gujrat Chapter , M. P & Chhatisgarh, Jharkhand, Maharashtra)**

2025 AROI – ICRO SUN PG Teaching Course (For Three Courses)

2024 & 2025 AROI – ESTRO Teaching Courses

- a) Head & Neck Teaching Course**
- b) Gynae Oncology Teaching Course**
- c) Advance Technology Teaching Course**

2025 AROI National Conference (AROICON 2025)

Note:

- Application should come through Zonal / State Chapter**
- Forwarded by Head of the Department & Head of the institute**
- Application should reach to Dr. V. Srinivasan, Secretary General AROI, HOD- Radiation Oncology, MIOT International Hospital, No.4/112, Mount Poonamallee Road, Manapakkam, Chennai- 600089, TN, Mob : 9841022366, E-mail: secretaryaroi@gmail.com , vsrinivasan09@gmail.com**

Dr. Manoj Gupta
President AROI

Dr. V Srinivasan
Secretary General AROI



**Regional Cancer Center, Raipur
Pt. J.N.M. Medical College Raipur**

**Indian College of Radiation Oncology
(ICRO)**

**Academic Wing of
Association of
Radiation Oncologists of India
(AROI)**

**20th AROI ICRO Radiobiology 2023
(Intas)**

**TEACHING COURSE
(West Zone)**

**Clinical Radiobiology for
Radiation Oncologists
on
Saturday 1st July 2023
9.00 am to 5.30 pm**

**VENUE
Regional Cancer Center
Pt. J.N.M., Medical College,
Raipur (C.G.)**

Upcoming

UPCOMING
MEETINGS



SCIENCE OF TODAY
HOPE FOR TOMORROW



Best of ASTRO-India Annual Conference

29th & 30th July, 2023 | Pune



THE RITZ-CARLTON
PUNE

REGISTER NOW



Program Director:

Dr. Bhooshan Zade

Director, Radiation Oncology

Ruby Hall Clinic, Pune

drbhooshan@gmail.com | +91 99678 35653

<https://www.bestofastroindia-pune.com>

Dear Colleague,

It gives me great pleasure to inform you that Best of ASTRO-India will be hosted by Ruby Hall Clinic, Pune on the 29th & 30th July, 2023 at the Ritz Carlton, Pune. It is our pleasure to invite you to be a part of this Conference as a Faculty.

Kindly confirm your attendance so we can take this forward and share more details with you.

We look forward to a positive response and your active participation.

Thank you.

Warm regards,

Dr. Bhooshan Zade

(Program Director)

Director, Radiation Oncology

Ruby Hall Clinic, Pune

Upcoming

UPCOMING MEETINGS

FERN
Federation of Asian Radiation
Oncology Research Network

Organized By

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**WORKSHOP ON CLINICAL
RESEARCH AND PROTOCOL
DEVELOPMENT**

Real World Evidence

Artificial Intelligence

Clinical Trials

Statistics

Clinical Research

Publications

Study Designs

Data Analysis

SAVE THE DATE

VIRTUAL WORKSHOP

11th - 12th & 18th-19th August 2023

Program Director

Program Coordinators

Dr. Supriya Chopra
Research Committee Chair, FARD
Professor, Radiation Oncology
ACTREC, Tata Memorial Centre,
Mumbai

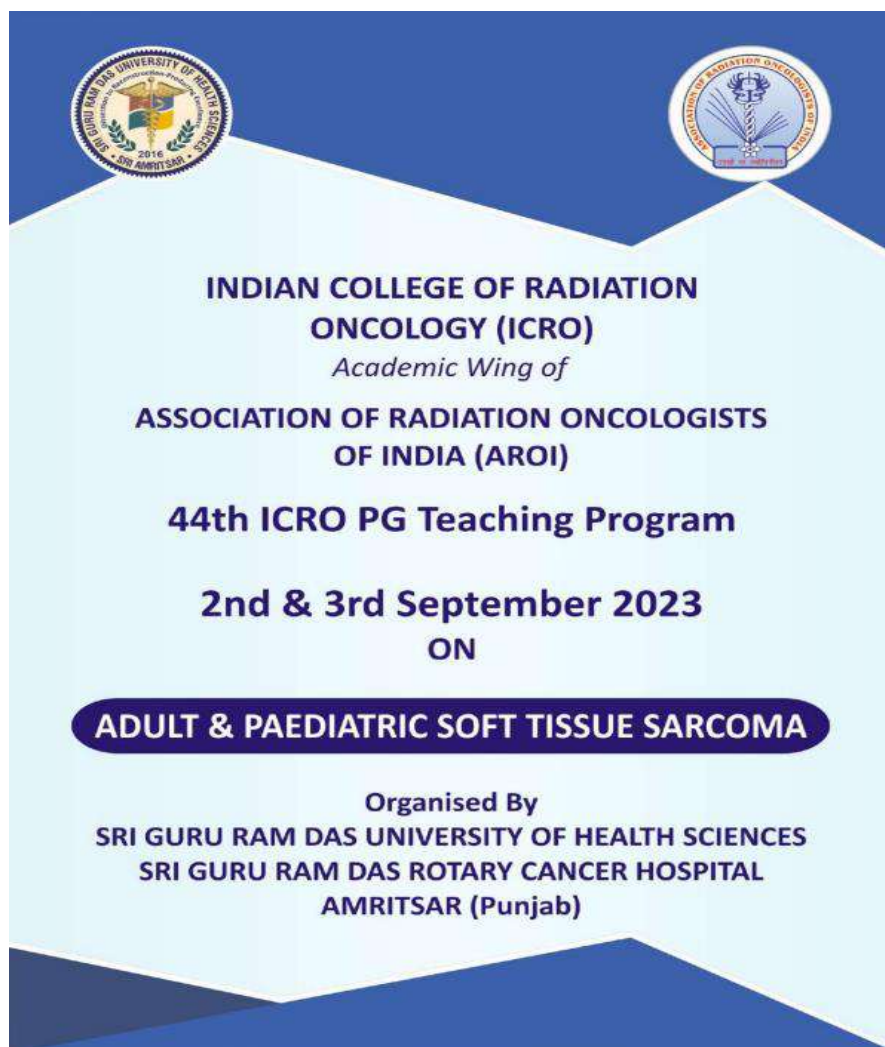
Dr. Jayant Goda
Professor, Dept. of
Radiation Oncology, ACTREC,
Tata Memorial Centre,
Mumbai

Dr. Vikram Gota
Professor & Officer-in-charge,
Dept. of Clinical Pharmacology,
ACTREC,
Mumbai

Click here to Register :
<https://riverroute.in/fern2023>

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Upcoming



North Zone AROI – ICRO SUN Prodvance Course
19th – 20th August 2023
at
Royal Cancer Institute Kanpur Uttar Pradesh
Contact: Dr. Anu Tiwari Mob. No. 9450093066

Upcoming

UPCOMING
MEETINGS



The poster for the FARO&KOSRO 2023 conference features a night view of Seoul, South Korea, with the Lotte World Tower prominently displayed on the right. The background is a deep blue with a network of white dots and lines, suggesting a molecular or technological theme. The text is primarily in white and yellow, with a QR code on the left side.

 The Korean Society for
Radiation Oncology

 The Federation of Asian Organizations for
Radiation Oncology

FARO&KOSRO 2023

FARO TOGETHER TOWARD TOMORROW

2023. 10. 11 (Wed) - 13 (Fri) | The-K Hotel, Seoul, Korea



IMPORTANT DATES

Abstract Submission Deadline by **June 1 (Thu)**
Early Registration Deadline by **May 31 (Wed)**
Regular Registration Deadline by **August 31 (Thu)**

Upcoming

UPCOMING
MEETINGS



Joint Conference of:



3rd INDIAN CANCER CONGRESS 2023

CONTINUUM OF CARE IN CANCER

2nd - 5th November 2023
Jio World Convention Centre, Mumbai

 www.icc2023.in

Dr. Rajesh Vashistha
Chair

Dr. Manoj Gupta
President

Dr. S. N. Senapati
President Elect

Dr. V. Srinivasan
Secretary General

Last date Abstract Submission– 30th Jun 2023

Upcoming

UPCOMING
MEETINGS



KASTURBA MEDICAL COLLEGE
MANGALORE
(A constituent unit of MGHE, Mangalore)



ARO
Karnataka Chapter

44th Annual Conference of Association of Radiation Oncologists of India



28th Nov - 1st Dec 2024

Dr. TMA Pai International Convention Centre
Mangalore, Karnataka

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Upcoming

UPCOMING
MEETINGS



**XXXIV
UPARICON**

2023

UP STATE CHAPTER

Under the aegis of Association of Radiation oncologist of India

THEME : GLORIOUS PAST, EMERGING FUTURE

16th & 17th December 2023

Venue:
Hotel Ramada, G.T. Road, Aligarh

Organized by
Department of Radiation Oncology
Jawaharlal Nehru Medical College & Hospital
Aligarh Muslim University, Aligarh-202001

Academic Calendar



ACADEMIC CALENDER, 2023

ASSOCIATION OF RADIATION ONCOLOGISTS OF INDIA
INDIAN COLLEGE OF RADIATION ONCOLOGY

ICRO/SUN PG				
2. SGRD, Amritsar	2-3 Sep, 2023	Dr Neeraj Jain	98142 99045	Adult & Pediatric Sarcomas
3.GMC, Thiruvananthapuram	16-17 Dec, 2023	Dr Bindhu	9447009238	Hypofractionation

ICRO/SUN PRODVANCE				
Targeted Therapy/ Immunotherapy Concurrent with Radiation				
3. (NZ) Royal Cancer Institute, Kanpur	19-20 Aug, 2023	Dr Anu Tiwari	94500 93066	-
4. (WZ) Aruni Hospital, Rajkot	7-8 Oct, 2023	Dr Hemendra Mod	97263 60025	-

ICRO/ INTAS RADIOBIOLOGY (Prof Manoj Gupta)				
3.(EZ)JLNMMC, Raipur	1 Jul, 2023	Dr Pradeep Chandrakar	99079 80612	-
4.(SZ) SVIMS, Tirupati	3 Sep, 2023	Dr Pranabandhu	94935 47731	-

AROI-ESTRO				
2.Head & Neck	25-27 May 2023	Dr Sarbani Ghosh Laskar	98208 34386	TMH, Mumbai
3. Advanced Tech	30 Nov- 3 Dec, 2023	Dr Vijay Karan Reddy	99123 20002	Apollo, Hyderabad

Best of ASTRO				
Ruby Hall Clinic, Pune	29-30 Jul, 2023	Dr Bhooshan Zade	99678 35653	-

ICC				
Mumbai, 2-5 Nov, 2023				

AROI 2024 Orators



PADMASHRI DR K. A. DINSHAW MEMORIAL ORATION



Howard M. Sandler, MD, MS, FASTRO, FASCO
Professor & Chair, Radiation Oncology
Ronald H. Bloom Family Chair in Cancer Therapeutics

Howard M. Sandler, MD, MS, FASTRO, FASCO is the Chair of Radiation Oncology at Cedars-Sinai. He also holds the Ronald H. Bloom Family Chair in Cancer Therapeutics.

Prior to joining Cedars-Sinai Medical Center. Dr. Sandler served as a professor of radiation oncology and urology at the University of Michigan. Dr. Sandler's research interests include prostate and genitourinary tumors as well as a broad range of subjects related to radiation oncology. He has been

involved in a number of research projects funded by the National Institutes of Health and other agencies to conduct research in these areas. Dr. Sandler currently is President-Elect of ASTRO, the largest radiation oncology professional society. He held an important leadership position within the Radiation Therapy Oncology Group/NRG Oncology and help direct or lead practice changing clinical trials. In addition to presenting and speaking at more than 100 symposiums, workshops and meetings, he has written more than 300 articles on prostate cancer and radiation therapy in peer-reviewed publications such as JNCI, Journal of Clinical Oncology, Lancet Oncology, JAMA Oncology, JAMA, and the New England Journal of Medicine. The recipient of numerous awards, Dr. Sandler was named Teacher-of-the-Year in the Department of Radiation Oncology at the University of Michigan and Cedars-Sinai Medical Center.

Dr. Sandler received his bachelor of science (summa cum laude), medical degree and masters of science in physics from the University of Connecticut. He completed a residency in radiation oncology in the Department of Radiation Oncology at the Hospital of the University of Pennsylvania.

AROI 2024 Orators



DR B. D. GUPTA MEMORIAL ORATION



Dr. Rajesh Vashistha

Director, Radiation Oncology & Medical Advisor
Max Superspeciality Hospital, Bathinda
Chair, AROI
Vice President, FARO

- ❖ MBBS, MD (SMS Medical College, Jaipur)
- ❖ Former Senior Consultant, M D Oswal Cancer Hospital, Ludhiana
- ❖ Former Secretary, AROI (2004-2016)
- ❖ Former President Elect, AROI (2016-2018)
- ❖ Former President, AROI (2018-2022)
- ❖ More than 100 publications in peer reviewed and indexed journals

DR RANGI PRASAD MEMORIAL LECTURE



Dr. Kishore Singh

Director & CEO, Delhi State Cancer Institute
Member Secretary of the Governing Council of DSCI
Director-Professor, Dept. of Radiation Oncology,
Maulana Azad Medical College and associated Lok
Nayak Hospital, New Delhi

- ❖ MBBS, MD (Bikaner)
- ❖ Former Director GB Pant Institute of PG Medical Education and Research, Delhi
- ❖ Former Dean, Maulana Azad Medical College, Delhi
- ❖ Former Editor, Journal of Clinical Research and Therapeutics
- ❖ WHO Fellowship 2008 - 2009
- ❖ Fellowship at M D Anderson Cancer Center, Houston, Texas, USA in 2013
- ❖ AROI Kirloskar Therapeutics Fellowship 2014-2015
- ❖ More than 100 publications in peer reviewed and indexed journals



How to Access AROI Members Login

1. Please go to <https://aroi.org/>
2. In the Home page please find the link for **Members Login**, click on the button.
3. You will be redirected to a page named **AROI Member's Login**
4. In this page use your **registered e-mail id as Username** and **Password** to access Members Login.
5. In case if you **don't have the Password**, please **go to Seek/Forget Password?** displayed under the Log In button.
6. In this page you need to provide your **Registered e-mail id** and then
7. click on **Seek Password** button. (After that please click on OK button under delivered message to move on to Log In window)
8. Your **dedicated Password** will be sent to your **registered email**.
9. Please check your registered e-mail (Inbox/Spam) for **Password**.
10. Use the given **Password** for login with your registered email id as username.

11. NB: If you found this message "You email id does not match our records" while seeking the password, please contact AROI officials

- After Log in you can view your profile details, and can modify/edit if needed. Just click on **Edit** button given on the page.
- You can edit your profile except your Name & LM Number.
- Here you can **download** the total membership details also. For that click on **Download Member Roaster**.