

ASSOCIATION OF RADIATION ONCOLOGISTS OF INDIA

Quarterly Newsletter

June 2018 Vol.14, Issue 2

From the office of AROI

GBM Meeting:-

Dear Friends,

- 1st Annual AROI General Body meeting to be held on 1st December 2018 in main hall of conference area, at 5 PM (Or 15 minutes after finishing best paper session).
- 2nd Annual GBM to be held15 minutes after completion of 1st AGBM.

The Agenda will be circulated later. If anybody wants some issue to be included. Please send to Undersigned.

Dr. Vijay Anand Reddy	Dr. Rajesh Vashistha					
President AROI	President Elect AROI					
Dr. G.V. Giri						
Secretary General AROI						

Applications Invited For following programs :

- # AROICON 2020 (Preference to be given to Delhi if applied through proper channel as per Bhubaneswar GBM discussion)
- # Best of ASTRO 2020
- # AROI-ESTRO teaching courses for 2020
 - 1. AROI-ESTRO Advance Technology course
 - 2. AROI ESTRO GYN Teaching Courses
- # AROI SUN ICRO teaching program for PG teaching courses - 3 courses
- # PRODVANCE AROI-ICRO teaching for one Post PG teaching course-(4 Zonal courses)
- # AROI-ICRO INTAS Radiobiology course- (4 zones)
- # Applications should be forwarded through the HOST INSTITUTE, endorsed by the HEAD of the INSTITUTE and the state /chapter /zonal.

Dr. G V Giri Secretary General AROI

IN THIS ISSUE



FICRO Invitation :-

Dear Sir/Madam

The Indian College of Radiation Oncology invites distinguished members of the Association with the below mentioned eligibility criteria for the award of FICRO.

The eligibility criteria for the FI8 ICRO are :-

1) Founder member of the ICRO

OR

2) Member of the ICRO possessing more than 15 yrs of experience after the post graduation. Founder members are automatically eligible for the fellowship subject to the payment of the fellowship fees of Rs 6100/-(Six thousand and one hundreds only) by 30th August 2018.Please send the DD to the AROI-ICRO,Account No:-30619770736,IFSC:-SBIN0000731.

Interested life members of ICRO may kindly send their names with Biodata to the undersigned latest by 30th Aug.2018.

Dr. S N Senapati Chairman ICRO Dr. Satyajit Pradhan Secretary ICRO





Prof. K T Dinshaw Memorial Oration

During 40th Annual conference of Association of Radiation Oncologists of India (AROICON – 2018) Trivandrum, Kerala, India from 29th November to 2nd December 2018.



Dr. Ben Slotman President AROI ESTRO Netherland Since 1998, Ben Slotman, MD, PhD has served as Professor and Chairman of the Department of Radiation Oncology at Vrije Universiteit Medical Center (VUmc) in Amsterdam, The Netherlands. Dr. Slotman received his MD in 1985 and PhD in 1990, both with highest honors at VU University in Amsterdam, The Netherlands and he was registered as radiation oncologist in 1994. Professor Slotman is the (co)-author of more than 350 peerreviewed publications (H-index=55). He has (co-)organized various conferences and has coordinated a number of trials, including the EORTC study on prophylactic cranial irradiation in extensive stage small cell lung cancer and the international randomized trial on the role of thoracic irradiation in these patients. His research activities are further concentrated on intra- and extracranial stereotactic radiotherapy and the introduction of various new technologies in radiotherapy. He is associate editor of the Journal of Radiosurgery and SBRT.

He was awarded Honorary Fellow of ACR and received the ISRS Jack I. Fabrikant award in 2017. He is member of the Board of Directors of the Radiosurgery Society (RSS), Immediate past-president of the American Radium Society and president-elect of ESTRO.

Dr. B D Gupta Oration

During 40th Annual conference of Association of Radiation Oncologists of India (AROICON – 2018) Trivandrum, Kerala, India from 29th November to 2nd December 2018.



Dr. Rajeev Kumar Seam Prof & Head IGMC Shimla Himachal Pradesh

Dr. RAJEEV KUMAR SEAM

- PROF & HEAD , Department of Radiation Therapy & Oncology Regional Cancer Centre , Indira Gandhi Medical College, Shimla, Himachal Pradesh
- Graduation 1978-79 IGMC, Shimla,H.P.
- M.D., Radiotherapy 1982, PGIMER CHANDIGARH
- Prof & Head since 2002 till date
- Member Secretary , Regional Cancer Control Society , Himachal Pradesh
- Teaching Experience 38 years
- Have been Examiner of various
 Universities for MD., Radiotherapy
 including National Board Of Examination

MEMBER:

- Northern Chapter Of Association Of Radiation Oncologists Of India
- Member, Association Of Radiation
 Oncologists Of India.
- Member Association Of Medical Physicist Of India
- Member International Society For Study

Of Lung Cancer

* Association Of Gynaecological Oncology

PUBLICATIONS:

- 75 No. in National and International Journals
- Guided and Co-guided more than Sixty Post Graduate dissertations
- Principal Investigator HBCR, IGMC, Shimla
- Co-Investigator International Collaborative group NSCLC
- Coordinator And Member Of Core Group Of Cancer Control Project (I.C.M.R.) Govt.Of Himachal Pradesh "Early Detection And Screening For Common Cancers In The State"
- ✓ General Secretary of the Northern Chapter of AROI from 1997-1999.
- ✓ President of the Northern Chapter of AROI from 2006-2008
- ✓ Joint Secretary of National Executive of AROI from 2008-2010





Dr. Rangi Prasad Singh Oration

During 40th Annual conference of Association of Radiation Oncologists of India (AROICON – 2018) Trivandrum, Kerala, India from 29th November to 2nd December 2018.



Dr Vivek Kaushal MD DNB

- Professor & Head , Department of Radiation Oncology Regional Cancer Centre, Post Graduate Institute of Medical Sciences, Rohtak
- MD Radiotherapy from PGIMER Chandigarh (Silver Medal)
- Commonwealth Scholar
- Ex Senior Registrar, Radiotherapy, Royal Marsden Hospital, United Kingdom
- Trained in Christie Hospital Manchester, University Hospital Leeds and UCLA Hospital San-Diego USA
- Founder Editor Radiation Oncology (NZAROI)for 12 years
- 315 Publications

Dr. Vivek Kaushal Prfo. & Head PGIMER,Rohtak

ARTICLES

Proton Therapy in India: Potential, Promise & Pre-conceived notions



Dr.Srinivas Chilukuri MBBS(AFMC), MD (TMH,Mumbai), PDCR Senior Consultant Radiation Oncologist, Apollo Proton Cancer Centre Chairman, Optimus Oncology Consultant Medical Affairs, Varian Medical Systems Chennai csrinivas 1@gmail.com

Protons accelerated to therapeutic ranges (70-230 Mev) from either a cyclotron or a synchrotron is being talked about as the next big thing to come to India this year. It is a wellknown fact that at least theoretically speaking, proton therapy offers a substantial dosimetric advantage over the conventional photon therapy. This is because of the unique depth-dose characteristics of protons, which can be exploited to achieve significant reductions in normal tissue doses proximal and distal to the target volume. These may, in turn, allow escalation of tumor doses, greater sparing of normal tissues, thus potentially improving local control and survival while at the same time reducing toxicity and improving quality of life. The therapeutic benefit as with any radiation therapy is directly related to the magnitude of dosimetric benefit, radiosensitivity of the OAR and dose-volume effects within it. Table-1 describes the dosimetric benefit as well as potential clinical benefit resulting from the dosimetric benefit. Despite the hype around Protons, several argue that the evidence supporting the use of protons is far below expectations. It is generally acknowledged that proton therapy is safe, effective and recommended for many types of pediatric cancers, ocular melanomas, chordomas and chondrosarcomas. Although promising results have been and continue to be reported for many other types of cancers, such as prostate, head neck, lung and gastrointestinal cancers they are based on small and poorly designed studies. Considering the high cost of establishing and operating proton therapy centers, questions have been raised about their cost effectiveness.

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Site	Dosimetric Benefit	Potential Clinical			
		Benefit			
Pediatric Tumors	Reduced doses to normal tissues, gonads, bone growth	Reduced late effects, reduced incidence of			
	plates, viscera, endocrine structures	second cancers			
Chrodoma,	Reduced doses to brainstem,	Allows safe dose			
Chondrosarcoma	spinal cord, adjacent UAK's	escalation, reduced late effects, improved control			
Head Neck	Reduced Mucosal dose	Reduced acute and late toxicities			
Lung/Thoracic	Reduced doses to esophagus, heart and healthy luna	Reduced acute as well as late toxicity			
Prostate/Pelvis	Reduced doses to rectum, bowel and bladder.	Reduced late effects			
Abdominal	Reduced dose to normal liver, bowel, Kidneys	Allows dose escalation, improved local control			
Lymphoma	Reduced dose to heart, lungs, breast, thyroid	Reduced late effects			
CNS tumors	Reduced dose to normal supratentorial brain, pituitary/hypothalamic axis, hippocampus, brainstem, temporal lobes, cochlea, cerebral blood pool	Reduced late effects, reduced including cognitive effects, immunosuppression			

On another extreme some believe that there is no need to conduct randomized studies or collect outcomes data in multi-institutional registries to unequivocally demonstrate the advantage of protons. The final answer to this debate lies in striking a balance between the two extremes- one extreme which trashes a technology because of ill designed, old proton technology and the other extreme, which generalizes the benefit with Protons for every site and every patient. The answer also lies in the details of how the patient is being treated, as there are a lot of intricacies and complexities involved in the delivery of proton beams.

The initial thin beams of protons are spread laterally and longitudinally and shaped appropriately to deliver treatments. Spreading and shaping can be achieved by electro-mechanical means to treat the patients with "passively scattered proton therapy" (PSPT); or using magnetic scanning of thin "beamlets" of protons of a sequence of initial energies. The latter technique can be used to treat patients with optimized intensity modulated proton therapy (IMPT), the most powerful proton modality. The differences in techniques arise from the unique physical properties of protons and also because of greater vulnerability of protons to uncertainties, especially from inter- and intra-fractional variations in anatomy. These factors must be considered in designing as well as evaluating treatment plans. In addition to anatomy variations, other sources of uncertainty in dose delivered to the patient include the approximations and assumptions of models used for computing dose distributions for planning of treatments. To increase the resilience of dose distributions in the face of uncertainties and improve our confidence in dose distributions seen on treatment plans, robust optimization techniques have been implemented.

The Literature so far on proton therapy has been based on older proton therapy techniques. The major difference between those techniques and the contemporary proton beam techniques have been listed in table:2.

Older Proton therapy techniques	Contemporary Pencil Beam Spot Scanning Techniques
Most literature available on proton therapy belongs to older passive scanning techniques including the randomized trials of prostate and lung	Very limited literature
Recent ones evaluating spot scanning techniques had limited capabilities of tight dose modulation. Spot sizes of 10-12mm.	Spot sizes as low as 2-3mm (FWHM-of 2-3mm in air for 230 MeV Protons)
Margins were large compared to photons due to older techniques, large uncertainties as well as lack of image guidance	Robust optimization techniques as well as routine availability of image guidance has led to smaller/crisper margins
Analytical/pencil beam algorithms were being used routinely. More than 10% over or under dose to target and 10Gy overdose to OAR's possible with old algorithms	Monte Carlo methods with robust optimization much more accurately predict delivered dose.



Proton Therapy in India: Potential, Promise & Pre-conceived notions

Older Proton therapy technique	Contemporary Pencil Beam Spot Scanning Techniques
The assumed RBE has a constant value of 1.1. In reality, the RBE is variable and a complex function of energy of protons, dose per fraction, tissue and cell type, end point, etc.	The newer planning systems incorporate LET/RBE based plans to address this uncertainty.
Spot scanning beams extreme sensitivity to motion, lack of motion management strategies and use of poor algorithms led to its disrepute for moving targets.	The use of motion management strategies and use of better planning systems which incorporate Monte Carlo methods as well as interplay effect estimates are being used now to plan patients with moving targets.
Cost of proton establishment, running and maintenance is huge Unbiased randomized controlled trials have not been possible.	As the cost comes down, well-conducted randomized trials will be possible.



ARTICLES

POST- TREATMENT EVALUATION IN HEAD & NECK SQUAMOUS CELL CARCINOMA



MD, DNB, DMRD **Ex-Professor**, **Dept. of Radio-diagnosis Tata Memorial Hospital** Mumbai, India. Email: supreeta.arya@gmail.com

Post treatment evaluation in head & neck squamous cell carcinoma (HNSCC) is performed in the following scenarios -A) during treatment for assessing response to induction chemotherapy B) in the immediate post treatment period for detecting response to chemo-radiation and C) during followup for detecting recurrence.

A. Response assessment during treatment

Morphological response to induction chemotherapy is studied with cross sectional imaging using RECIST 1.1 to decide further course of therapy. However RECIST has been reported to have limitation in identifying patients with pathological complete response in HNSCC. Pre and post-treatment imaging with CT perfusion & DW-MRI have been compared for early prediction of response to induction chemotherapy in HNSCC with encouraging reports, but these are as yet investigational.

B. Immediate Post Treatment

In general for HNSCC, the NCCN and UK guidelines advise a baseline cross sectional imaging at 3 to 6 months –CT or MRI, the goals being to look for response, residual disease & treatment complications. A chest CT may or may not be added.

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POST- TREATMENT EVALUATION IN HEAD & NECK SQUAMOUS CELL CARCINOMA

The goal of post treatment evaluation in laryngeal and hypopharyngeal cancers is to identify those that fail chemoradiation therapy by diagnosing residual disease suitable for curative salvage. Of the various available imaging methods, the choice of is between contrast enhanced CT/ MRI and FDGPETCT. A post treatment protocol of CT scan and laryngoscopy evaluation can usually detect residual disease. A baseline CT examination is performed 4 -8 weeks after treatment. Hermans et al evaluated pre-therapy and followup CT after definitive radiation therapy to detect local failure and found that CT detects local failure earlier than clinical examination alone. Pameijer et al proposed a three-point post-radiotherapy (post-RT) CT-score: 1 = expected post-RTchanges; 2 =focal mass with a maximal diameter of < 1 cm and/or asymmetric obliteration of laryngeal tissue planes; 3 = focal mass with a maximal diameter of > 1 cm, or < 50%estimated tumor volume reduction as compared to previous imaging.

Pre and post-RT MRI has also been studied for identifying patients at high risk for failure in laryngeal cancers. However when imaging the neck below the hyoid bone, MRI as a tool has a lot of motion artefacts (swallowing/ breathing). Moreover performing MRI in the infrahyoid neck requires experience and expertise to obtain high quality images that are not degraded and can yield meaningful information. Therefore in centres without adequate expertise, in the infrahyoid neck region, CT with its advantages of fast scanning obviating motion artefacts, wide availability as a resource and expertise and less cost is the preferred method. MRI though is the preferred method for imaging the suprahyoid neck, in patients with sinonasal, salivary gland, nasopharyngeal, oropharyngeal and skull base tumors (those at risk for perineural invasion or dural invasion). Perineural spread is best assessed with post gadolinium T1W fat suppressed coronal images and hence while using MRI in the suprahyoid neck , the contrast enhanced study cannot be omitted.

When total laryngectomy is performed and residual disease is suspected at the primary site and/or neck nodes, or in the nasopharynx/oropharynx where the primary/definitive treatment is with radiation therapy, FDGPETCT can be a valuable aid. It has the advantage of providing whole body metabolic information and the technique is standardized, but the greatest advantage is the high sensitivity and negative predictive value in assessing residual disease. A systematic review and meta-analysis found FDGPETCT to have a high negative predictive value of 95.1% in the follow-up of treated HNSCC to evaluate locoregional disease with higher diagnostic accuracy in scans done ≥ 12 weeks. The benefit of FDGPETCT is highest at 3 and 6 months (NPV= 91% & 98%). The disadvantages of PETCT include the cost, the radiation exposure, interpretation challenges and the low PPV (79%) due to the false positives. False negatives are also possible if performed too early (earlier than 8 or 10 weeks) or if the recurrence is too small.

Earlier response assessment in both the primary and neck nodes has been assessed with DW-MRI, performed three weeks after concluding chemo-radiation for HNSCC. Incremental benefit with DW-MRI over conventional MRI was reported for detecting/ excluding residual disease in laryngeal-hypopharyngeal SCC. Vandecaveye et al reported a 95% accuracy for detection of recurrent or residual HNSCC. Other reports too favor DW MRI to differentiate between recurrent/ residual disease and post treatment change. The advantage of this technique is that it does not require gadolinium injection, but comparison with previous imaging, done preferably on the same scanner with similar parameters are required. The percentage rise in ADC values during treatment is a predictor of response. Serial DWI analysis in HNSCC to monitor treatment response is a likely useful tool in future. However currently the challenges of a non uniform technique and lack of standardization limit use of this technique.

When concurrent chemo-radiation is used in treating patients with N2/N3 nodal disease, subsequent surgical salvage in complete responders is debated. Absence of nodal disease on clinical examination with lack of nodal uptake on FDGPETCT is a safe indication to observe the neck without a planned neck dissection. PETMRI is an investigational tool that provides superior anatomic detail to PETCT due to the higher soft tissue resolution of the MRI component and has the advantage of less radiation exposure. It has similar accuracy for primary, nodal, osseous and soft tissue lesions with no statistically significant difference. The cost though is prohibitive at present.

C. Surveillance

Oral Cancers

The surveillance policy varies in different institutes. While some order a baseline imaging at 3-6months in all cases, others rely on physical examination and imaging is performed when the results of clinical examination and biopsy are equivocal.

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POST- TREATMENT EVALUATION IN HEAD & NECK SQUAMOUS CELL CARCINOMA

When recurrence is suspected at the primary site and/or neck, a contrast enhanced CT/MRI or alternately FDGPETCT is used. Contrast enhanced MRI is preferred to CT if soft tissue suspected. However recurrence is for evaluatina osteonecrosis, CT is the optimal modality. The three cardinal features that support a diagnosis of osteonecrosis are A) Absence of any focal enhancing soft tissue , B) presence of diffuse nonenhancing swelling in relation to the segment of destroyed bone (that also corresponds to the radiation portal) and C) a presentation approximately 1.5 years after treatment (1-3 years). PETCT may be misleading by showing uptake in such cases and studying the CT component, the history and biopsy results is essential.

Pharngeal & Laryngeal cancers

Nasopharyngeal carcinoma (NPC) is assessed with periodic MRI, usually 6months after treatment . ¹⁸FDGPET/CT is superior or complementary (as per various studies) to MRI in distinguishing recurrent NPC from fibrosis or scar tissue after

RT in irradiated fields with distortion of normal architecture. Oropharyngeal, laryngeal & hypopharyngeal SCC are assessed clinically at follow-up and imaging is ordered when recurrence is suspected. FDGPETCT was reported to have high sensitivity (92%) and specificity (87%) in detecting recurrence in curatively treated HNSCC at 3 months, at 4-12 months and at > 12 months. A meta-analysis has also reported ¹⁸FDG PET-CT to have high sensitivity and accuracy for screening distant metastases before salvage treatment in patients with recurrent head and neck cancer. However a study assessing the impact of post-treatment PET/CT surveillance at 12 and 24 months found that HNSCC patients with negative 3-month PETCT appear to derive limited benefit from subsequent PETCT surveillance. PETCT detection rates in clinically occult patients who had negative study at 3 months were only 9% at 12 months and 4% at 24 months. Hence routine PET surveillance after a negative 3-month PETCT may not be necessary or cost effective.



PRODVANCE

Hyderabad : 22nd – 23rd June 2018

Update from: Dr Vijay Anand Reddy, President, AROI

"PRODVANCE 2018" at Hyderabad was a grand success.Unbelievable number of participants! 164 post MD Radiation Oncologists from all over the country had come to Hyderabad for this meeting.

The PRODVANCE topic was practical demonstration of Volume Delineation of common Cancers including Brain, H&N, Thorax, Abdomen and Pelvis. We also had excellent Radiodiagnosis practical demonstration in the above cases by excellent faculty. It was very appreciated by the participants. It was indeed an educative, enjoyable and enlightening experience to the participants. Your feedback will be of immense value to improve our future programs. Thank you for participating and thank you for the trust.





Breast Conclave - Cure, Cosmesis & Beyond Mumbai : 19th – 20th May 2018

Update from: Dr Upasana Saxena, HCG APEX Cancer Centre, Mumbai

Carcinoma breast is the most common cancer in urban India, Mumbai is one of the cities with the highest breast cancer registry rate. It is also a disease with a high rate of cure and a long survival. The treatment modalities are rapidly evolving and we attempt to emerge as a centre that pays emphasis on being abreast with the evolving techniques and technology. Breast Conclave – Cure, Cosmesis and Beyond, was organized to spread the message among the fraternity and share knowhow with doctors in the field. The intent was an academic update of the rapidly evolving sphere of oncology for Breast Cancers.

Breast Conclave – Cure, Cosmesis and Beyond was hosted by HCG APEX Cancer Centre, Mumbai on May 19 & 20, 2018. The 2-day long conclave was held at Eskay Resort, Borivali. This was a benchmarking event in the breast domain which extensively talks about all aspects of management of breast cancer on a single platform. Envisioned by Dr Upasna Saxena & Dr Yogen Chheda and well supported by all other clinicians and support staff, came together in making the show a grand success. We also had the accreditation of the AROI and ABSI to endorse the scientific content of the programme. Faculties and Delegates came from different parts of the country and made an encouraging number above 180. We also had the priviledge to have with us an International faculty from UK. The programme began with a programme overview by Dr. Yogen Chheda [organizing secretary]. The programme was inaugurated in the August presence of Dr B K Smruti [Lilavati Hospital, Mumbai], Dr Mandar Nadkarni [KDAH, Mumbai], Dr Vani Parmar [TMH,Mumbai], Dr. Rajendra Bhalavat [Jupiter Hospital, Mumbai], Dr Anil Heroor [Fortis Hospital, Mumbai] along with Mr Rahul Bajpai – COO HCG PEX Cancer Centre. The Guest Oration was by Dr. Somashekhar S.P. [President ABSI] and keynote lecture was given by Dr. Vani Parmar [Associate professor, Breat DMG, TMH]. Speakers shared their experience and expertise in the finer nuances of Breast cancer in all specialities [from diagnosis to management and the management of treatment related complications]. There were also competitive poster entries which were judged and prizes given away for the same. There was a gala musical night on 19th May after the scientific programme to provide an interactive forum for all faculties. delegates and our staff to interact. The second day scientific programme was concluded with the giving away of poster prizes and a vote of thanks by the organizing secretary Dr. Upasna Saxena.





4th Best of ASTRO - INDIA New Delhi : 5th – 6th May 2018

Update from: Dr. Manish Pandey, Action Cancer Hospital

Best of ASTRO Conference is a forum to bring together all practicing radiation oncologists at a single platform to discuss the recent and most influential abstracts presented in ASTRO-2017, San Diego as it is not possible for all radiation oncologists to attend ASTRO Conference due to multiple reasons. AROI has taken the initiative to bring ASTRO abstracts in form of Best of ASTRO. Building on the success of previous conferences, 4TH Best of ASTRO 2018 has become the most extensive and spectacular event in Best of ASTRO history hosted by Delhi for its high level and large participation. This two days event was hosted at ILBS, Vasant Kunj.

The 4th Best of ASTRO Conference was organized by Action Cancer Hospital in association with NZ-AROI along with upcoming institute in oncology, Institute of Liver and Biliary Sciences under dynamic leadership of Dr. Hanuman Yadav. The dedicated team has worked day and night under the guidance of Dr. Harpreet Singh, HOD Action Cancer Hospital and Dr. Munish Goirala, HOD RGIRC for this conference to be a success. Patrons from AROI Dr. Vijay Anand Reddy, President, Dr. Vasishtha, President Elect, Dr. G V Giri, Secretary and other stalwarts like Dr. Manoj Gupta, Dr. Ramesh Bilimagga, Dr. Kannan, Dr. Kilara, Dr. S.K

Srivastava, Dr. J P Aggarwal, Dr. S C Sharma, Dr U P Sahi, Dr. Pradhan, Dr. Virendra Vyas along with eminent faculty across the nation addressed the audience and shared their vast experience and knowledge with around 250 delagates which included various practicing radiation oncologists and students. The academic session was followed by the Inaugural ceremony and Gala dinner at Hotel Grand, New Delhi. The chief guest for the Inaugural function was Dr. GK Rath, Director NCI Jhajjar and Dr. S.K Sarin, Director ILBS. In an open forum, eminent national faculty kept their views on how to provide an affordable and equitable cancer care to the last patient in India. The main highlight was the second day session which was mainly focused on radiation physics and radiation technologists to enlighten them with the rapidly changing radiation oncology practice. Around 30 physicists and 45 radiation technologists from Delhi NCR region joined us for the conference. The conference ended with the valedictory function with the distribution of a vote of thanks to all participants and organizing committee by Dr. Manish Pandey, Organizing Secretary of Best of ASTRO 2018 with the hope that the conference would have been fruitful to its participants and further more such conferences will help us provide our patients the real benefit of this knowledge.





ICRO Teaching Course Srinagar: 30th June - 1st July 2018

Update from: Dr. M Maqbool Lone, Sheri-Kashmir Institute of Medical Sciences

Indian College of Radiation Oncology, a wing of Association of Radiation Oncologists, in collaboration with the Department of Radiation Oncology, State Cancer Institute, Sheri-Kashmir Institute of Medical Sciences organised 28th Post-graduate teaching programme at Srinagar J&K on 30th june- 1st July 2018. The theme of the teaching course was "Dose Delivery in Modern Radiotherapy". A total of 38 post graduate students from various colleges/institutes of the country participated in the event. Teaching faculty from across the country delivered lectures on various topics of relevant interest. The event started with informal inauguration, in which SKIMS Director, executive body members of AROI, ICRO, general manager Sun Oncology, and SKIMS faculty participated.

The conference concluded with 50 MCQ's in which two students who topped were felicitated. These two students will be sponsored for upcoming AROICON to be held at Thiruvanthapuram by Sun Oncology.

The teaching program was a huge success and is hoped that in the long term will be beneficial to cancer patients.







AROI Fellowships/Grants/Awards

Applications Invited for: Fellowships/ Grants

S.No.	Name of Fellowship	Nos	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									
1.1	AROI- Kirloskar	1	Radiation Oncologist	>50	1.5 Lakhs	MD/DNB	10	5	yes	Then weightage
1.2	AROI- Kirloskar AROI Fellowship	2	Radiation Oncologist	41-50	1.5 Lakhs	MD/DNB	10	5	yes	To those who have not Availed
1.3	AROI Fellowship	3	Radiation Oncologist	35-40	1 Lakh	MD/DNB	5	3	yes	any Fellowship (or Any other
1.4	AROI	3	Radiation Oncologist	30-35	1,00,000	MD/DNB		3	yes	Candidate is not available)
	-	2			-		Within India 4			
2.1	AROI	1	Medical Physicist	<40	20,000	DRP/MSc(MP)	2	BASED ON THE	yes	
2.2	AROI	1	Radiation Oncologist	< 35	20,000	MD/DNB	3	RESUME AND		
2.3	AROI	1	RT Technologist	<45	10,000	AERB Certified	yes	THE CONFERENCE & PREFERENCE GIVEN TO PAPER PRESENTERS		No
2.4	Neil Joseph Fellowship	6	Radiation Oncologist		15,000	Student MD/DNB	yes	RESUME AND		

Applications Invited for: Best Paper

3.1	Best Proffered Paper for Senior Members	1	Radiation Oncologist	40-50		Post MD/ DNB >10 Yr	10-15	
3.2	Best Proffered Paper for Senior Members	1	Radiation Oncologist	35-40		Post MD/ 5-10 yr	5-10	
3.3	Dr. G.C. Pant Young Doctor Award	1	Radiation Oncologist Post MD/DNB	<40	20000 for fellowship	Post MD/ DNB 3 yrs	73 years	
3.4	Dr. M S Gujral Gold Medal	1	Doing MD/DNB is Rs. 10000/-		1000+ Medal		yes	
3.5	Dr. M C Pant Gold Medal	1			7500+ Medal		yes	
3.6	Gold Medal Medical Physics	1	Physicist/Radiation oncologist with physicist	<30	7500	DRP/MSc in Med. Physics	yes	

Procedure for Application:

- 1. Applicants have to send a copy of date of birth certificate.
- 2. Applicants to send a copy of the publications mentioned under each Fellowship.
- 3. Self certified proclamation that they are working full time in radiotherapy.
- Fellowship amount will be given to candidates from money received from sponsors after tax deduction and 15% contribution to AROI fund (for 1.1&1.2 A).
- 5. All the applications for fellowship/ best paper awards be sent along with the letter from head of department/ institute to the office of Secretary General AROI by 5 PM, 30 July 2018.
- 6. No Objection certificate from their head of Department if selected to go for fellowship. Fellowship must be completed before August 2019.
- 7. PG Students shall send their certificates through Head of the Department.
- 8. For the best paper award, applications should be sent along the full paper. (Soft copy by email & hard copy by post).
- 9. Abstract along with the letter from the head of dept. for publication in JCRT should be sent along with the paper (if JCRT accept)
- 10. For fellowship more than 35 years age category should be member of ICRO.
- 11. Applicants to send softcopy also through email.

Mailing address:

Dr. G.V. Giri, Secretary General, AROI Sri Shankara Cancer Hospital 1st cross, Shankra Mutt premises Shankarapuram Basavangudi, Bangalore Karnataka 560004

Email: secretaryaroi@gmail.com Vashistha.aroi@gmail.com



wards & Honours

ESTRO Mobility Grant 2018



Dr. Lucy Pattanayak

Associate Professor & Consultant Radiation Oncology AH Regional Cancer Centre, Cuttack 753001, India <u>lucypattanayak2007@gmail.com</u>

Title of the Grant:- Volume Modulated Arc Therapy in Head and Neck Cancers.

Institute and Country:- Beatson West of Scotland Cancer Centre (BWoSCC), Glasgow, U.K.

Time Period: - 10.05.18 to 26.05.18

Aim of the Visit:-

(1) To evaluate the performance, plan quality and treatment time of Volume Modulated Arc Therapy (VMAT) in Head and Neck Cancers.

(2) To formulate an Institutional treatment protocol for selecting patients for VMAT in Head and Neck Cancers.

Details of the scientific content of the Visit:- Head and neck cancers are the commonest cancers in India and majority of the patients require Radiotherapy as a part of their treatment either as Postoperative or Radical. However, unlike other sites, treatment in Head Neck Cancers is very complex and diverse. IMRT is the standard protocol for treating these patients in our Institution. However, in the Beatson, VMAT is now the established routine treatment for all patients since the last 7 to 8 Years. Since we are recently implementing VMAT in our patients, it was good to have a look at their work protocol and treatment policies.

My visit was under the supervision of Dr. Derek Grose, MBChB, MRCP, FRCR, MD, Senior Consultant, Clinical Oncology, Beatson Oncology Centre, Glasgow, UK. The Beatson has 12 Linear accelerators and machine on an average treats 40 patients per day which totals to 500 patients per day in all machines.

The advantages of using VMAT over IMRT are: variable dose rate, variable gantry speed, volumetric treatment in 360 degree arc rotation, treatment delivery as less as 2mins (4 times faster than IMRT), lesser intrafraction motion, higher precision, improved conformality, minimum dose to surrounding tissues and finally better comfort to the patient. This implies that almost double the number of patients can be treated using VMAT as compared to IMRT in a given period of time. Thus VMAT treats a larger number of patients as compared to IMRT with the same conformality and quality assurance. Given the increasing patient load in our Institution, VMAT would therefore offer an advantage of treating more number of patients in lesser time.

Dr Derek Grose also showed me some of the contours which were very precise and strictly adherent to recommended guidelines. Every Thursday in the Beatson, the Head Neck Oncologists conduct a Peer Review where all the contours are presented before final approval for plan. The consultants in the Beatson are site specific, much focussed, professional and at the same time happy to share. Right from the multidisciplinary clinics to the peer reviews and the follow up by specialist nurses, the work flow was organised. Besides, the consultants were involved in multiple research works and clinical trials. I also spent some time in between schedule with the Gynaecology and Breast Units. Overall, it was a wonderful time to spend with all the experts!

Results from the studies:-

After returning, I presented my experience in our Staff Seminar and have applied to our Institution Ethics Committee to enrol and treat patients with Head Neck Cancers using VMAT.





Conterence

- Contact -Dr. GK Rath Program Director, Best of ASCO Professor, Radiation Oncology Chief, DRBRAIRCH, AIIMS, Delhi Head, National Cancer Institute, India

AROI – ICRO Teaching Course for the year 2018

Conterence

Program	Name of the Organiser	Institution	Email ID	Contact No.	Tentative Dates	Торіс
ICRO-SUN Teaching Program (PG Students)	Dr. M Nagrajan	V.N.Cancer centre at GKNM Hospital, Coimbatore (TN & Pondicherry)	mnr81@yahoo.com	9443163459	14 th & 15 th July 2018	META ANALYSIS
	Dr. Sandeep Jain	SMS Medical college , Jaipur (Rajasthan Chapter)	jaindrsandeep@rediffmail.com	9828233338	13 th & 14 th October 2018	MEDICAL PHYSICS
RADIOBIOLOGY ICRO- AROI INTAS	Dr Ashutosh Gupta	Jammu	drashutohgupta15@gmail.com	9419190696	19 th Aug 2018	RADIOBIOLOGY
	Dr. Preety Jain	West Zone : GMCH MGM Medical college, Indore (MP & CG Chapter)	jainpreety2005@yahoo.com	9827227738	29 th Sept 2018	RADIOBIOLOGY
	Dr Geeta	Vydehi Institute of Medicaal Sciences & Research Institute,Bangaluru	fromgeeta@gmail.com	9980082823	Date to be announced soon	RADIOBIOLOGY
Sr. ICRO 2018 ICRO-AROI Reddy"s	Dr. Ashok Diwan	West Zone : GMC, Nagpur (Maharashtra Chapter)	tinuad_07@hotmail.com	9822816608	8 th & 9 th Sept 2018	IMAGING AND CONTOURING DEMONSTRATION
	Dr. S N Senapati	East Zone : A.H.Regional Cancer Center,Cuttack (Orissa Chapter)	snsenapati2007@gmail.com	9437031718	11 th & 12 th Aug 2018	IMAGING AND CONTOURING DEMONSTRATION
	Dr. Rajesh Vasistha	North Zone : Max Hospital,Bhatinda,Punjab	drvashistha@gmail.com	9848020002	10 th & 11 th Nov2018	IMAGING AND CONTOURING DEMONSTRATION

ICRO-AROI Academic Program Support by: Sun Pharma, Dr. Reddy's Lab, INTAS







Conterence

AROI : Newsletter







7th Annual Young Radiation Oncologists Conference 2019 (YROC 2019) Siliguri – 19 and 20 January 2019





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This issue is brought to you by Dr. Vikas Jagtap, NEIGRIHMS, Shillong (Meghalaya), India for the Association of Radiation Oncologists of India Dr. Vikas Jagtap Associate Professor & HOD

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