

AROI-WB Annual Conference 2017

Title: A PROSPECTIVE COMPARATIVE STUDY EVALUATING THE IMPACT OF HEMI BODY IRRADIATION VS FOCAL RT PLUS ZOLEDRONATE IN MANAGEMENT OF PAINFUL SKELETAL METASTASES.

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Abstract

Objectives : The primary objective of our study is to evaluate the effect of Hemi Body Irradiation and Focal Radiotherapy with Zoledronate on pain management in patients with extensive bone metastases after completion of definitive treatment. The secondary objective is to evaluate the toxicities and Skeletal Related Events eg. fracture.

Material and Methods: We have analyzed the difference in pain reduction comparing two groups of patients in a prospective non randomised study. The first group comprised of 10 patients treated with Hemibody Irradiation (**HBI**), the second one included 14 patients treated with focal radiotherapy and zoledronic acid, 4mg iv, 4 weekly (**RT + ZA**). In both groups single fraction radiation of 8Gy (UHBI = 6Gy) was given & followed up for 3 months. All patients were assessed before, during and after treatment with a questionnaire that rated the grade of pain, type of analgesic therapy and patient's performance status. Response assessment was done using Visual analogue scale, percentage of pain relief and total score reduction on a scale of 0 - 20. Acute & chronic haematological and GI toxicities were assessed as per standard guidelines. Statistical analysis was done by Chi square test & Mann-Whitney U test.

Results: Long term pain score & total score reduction was more in (RT + ZA) arm (**P = 0.002 & 0.001**) with less toxicity (**P = 0.002**) and SRE. (**P = 0.324**)

Conclusions Focal RT with ZA showed better result on long term pain management and may be preferred in cancer patients with longer median survival. As our sample size was small, study with larger sample size is warranted.

Title: A RETROSPECTIVE AUDIT OF DIAGNOSTIC DELAY IN LYMPHOMA PATIENTS

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Abstract

Objectives : To estimate median diagnostic delay of presentation and to find impact of diagnostic delay on stage of disease presentation, Relationship of diagnostic delay on treatment outcome & Evaluating impact of diagnostic delay on Progression free survival.

Material and Methods: We have analysed histopathologically confirmed 250 lymphoma patients, excluding extra nodal presentations, in a retrospective single institutional epidemiological study. Follow up time is Date of treatment completion to date of last contact, local recurrence, distant metastasis or death. Statistical analysis was done by bivariate analysis using IBM SPSS software v.23.

Results: Avg time for diagnostic delay is 365 days, along with delay in tertiary care initiation of 60 days. 56% patients had CR, 6% PR, 28% SD. Simple correlation between PFS & Range of diagnostic delay ($R=0.488$). The lesser the primary care delay i.e. less than 300 days the better is the treatment response ($p=0.00$). Beyond this cut off limit, patients presented with advanced stage.

Conclusions- In developing country like India delayed presentation due to diagnostic delay is taking a toll on treatment outcome. More evidence is needed as well as interventions to reduce time to diagnosis such as public education campaign and GP decision making aids.

TITLE: A PROSPECTIVE RANDOMIZED STUDY OF LOCALLY ADVANCED HEAD AND NECK CANCER COMPARING CONCOMITANT CHEMORADIOTHERAPY VERSUS PURE ACCELERATED RADIOOTHERAPY

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Abstract

Introduction:

Although head and neck cancer can be cured by radiotherapy, the optimum treatment time for locoregional control is unclear. The aim of the study is to find out whether shortening of treatment time by use of six instead of five radiotherapy fractions per week improves the tumour response in locally advanced head and neck cancers compared with conventional concomitant chemoradiation.

Material and Methods:

A single institutional, prospective, open labeled, interventional parallel randomized controlled study with the accrual period of , from January, 2015 to August 2016 with a minimum followup period of 6 months. Total of 57 Patients who did not received any treatment previously and histologically proven squamous cell carcinoma, were treated. In the study group, 27 patients received accelerated radiotherapy with 6 fractions per week with a total dose of 70Gy, 35#, 5week 5 days. In the Control group 30 patients received CCRT with 5 fractions per week radiation 70 Gy, 35 #, 7 weeks along with intravenous cisplatin 100mg/m² three weekly. Tumor control, survival, acute and late toxicities were assessed.

Results:

The median treatment time in the study Arm was 46 days compared with 54 days in the control Arm. There were 27 patients in the study arm against 30 patients in standard control arm who were started on treatment. 2 patients in control arm did not complete the treatment and dropped out of the study due grade 3 mucositis and grade 3 dysphagia. So the Response rates were calculated among 27 patients in study arm against 28 patients in control arm. However adverse events were calculated for all patients with "intention to treat". The local disease control is compareable in both the arms with the P value 0.703 (statistically not significant).

Conclusion:

Similar local control can be achieved with purely accelerated radiotherapy in locally advanced HNCs, with lower long term toxicities compared to CTRT.

Key words:

Accelerated radiotherapy, chemoradiotherapy(CCRT), head and neck cancer(HNC).

A PROSPECTIVE COMPARATIVE STUDY BETWEEN CONCURRENT CHEMORADIATION VERSUS CONVENTIONAL RADIATION WITH DAILY CONCOMITANT BOOST TO THE GROSS DISEASE IN LOCALLY ADVANCED SQUAMOUS CELL CANCERS OF THE HEAD AND NECK

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Objectives:

Our study aims to compare accelerated fractionation with daily concomitant boost to the gross disease (AFX-C), to the standard fractionated concurrent chemoradiation, in terms of locoregional control, survival, and toxicity.

Materials and methods:

Fifty nine patients of locoregionally advanced head and neck squamous cell carcinoma (LAHNSCC) attending our OPD between November 2014 and June 2016 were randomized: control arm A was treated to 66-70Gy in 6-7 weeks with concurrent cisplatin; study arm B was treated with conventional radiation similar to arm A, plus an additional boost dose of 40cGy to a smaller field covering the gross disease with a 6 hour gap between fractions.

Response was assessed using RECIST ver 1.1. Toxicities were graded according to the RTOG/EORTC criteria.

Clinically suspected recurrences were biopsy proven and disease free survival (DFS) was calculated from treatment completion to date of last follow up / recurrence / death in patients achieving complete response. Incomplete responders were taken as failure on day 1.

Statistical analysis was done using IBM SPSS ver 20. For categorical variables, Chi Square and Fisher Exact tests were used, while for continuous variables, the mean and SD were compared using Independent samples t test with 95% CI. P less than 0.05 was taken as significant. Survival analyses were done using the Kaplan Meier method.

Results:

The arms were comparable with respect to baseline variables.

Both overall and complete responses were better in AFX-C but the difference was not statistically significant.

Acceleration caused more dysphagia, acute skin, mucous membrane, and laryngeal toxicities but none of them were statistically significant. These toxicities were manageable and did not lead to significant treatment prolongation.

Grade1/2 late skin toxicity and subcutaneous tissue fibrosis and Grade2/3 late salivary glands toxicity showed a trend towards lesser incidence with AFX-C.

An improvement of DFS was seen in AFX-C, albeit statistically insignificant. The mean Recurrence Free survival was comparable in both arms.

Conclusion:

AFX-C is a good alternative to conventional CTRT in LAHNSCC in terms of overall response, complete response and disease free survival.

Acute toxicities are more with AFX-C but these can be managed without significant treatment delay.

The results of this study should be validated with other comparative studies with larger sample sizes, which involve multiple institutions, and which have a longer follow up period in order to define the role of accelerated radiotherapy with concomitant boost in LAHNSCC.

WEEKLY CHEMOTHERAPY ALONG WITH CETUXIMAB IN RECURRENT OR METASTATIC HEAD NECK CANCERS: AN INSTITUTIONAL AUDIT

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ABSTRACT

Background: Combining Cetuximab with chemotherapy improves overall survival when used in patients with recurrent or metastatic Squamous Cell Carcinoma of Head and Neck (SCCHN) as first line treatment. Weekly Paclitaxel, Carboplatin and Cetuximab (PCC) has been explored as an alternative regimen for recurrent or metastatic SCCHN in some recent studies.

Methods: This was a retrospective audit involving patients with recurrent or metastatic SCCHN, who received PCC (paclitaxel 80 mg/m², carboplatin AUC 2, and a cetuximab 400 mg/m² loading dose, followed by 250 mg/m² weekly) for up to 12 cycles between January 2016 and December 2016 (n=14). Maximal response achieved and progression-free survival (PFS), as well as dose intensity and adverse effects, were evaluated.

Results: Partial radiographic response occurred in 57.1% (8) patients, complete response in 7.14% (1), stable disease in 21.4% (3), and progression in 14.3% (2). Median PFS was 3.8 months (Range 1.5 to 5 months). 42.9% (6) patients required treatment to be held, delayed or dose reduced, most commonly for hematologic toxicities (21.4%) and electrolyte imbalance (14.3%). 57.1% (8) patients developed skin rashes. Treatment had to be discontinued in 1 patient owing to severe infusion reaction. There were no treatment related fatalities. Long term follow up data will be used for further analysis.

Conclusion: Weekly PCC appears to be an effective and well-tolerated treatment option for patients with recurrent or metastatic SCCHN, warranting further multi-institutional studies with larger populations.

Title: A PROSPECTIVE RANDOMIZED STUDY COMPARING CONVENTIONALLY FRACTIONATED VERSUS HYPOFRACTIONATED POST MASTECTOMY RADIOTHERAPY IN LOCALLY ADVANCED BREAST CANCER IN FEMALE

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ABSTRACT

Introduction: Hypofractionated radiotherapy (HypoRT) has become acceptable in early breast cancer, but it has seldom been compared with conventionally fractionated radiotherapy (ConRT) in post mastectomy female patients of Locally Advanced Breast Cancer (LABC).

Material and Methods: Between November 2014 and September 2015, biopsy proven LABC patients with normal baseline haematological, Cardiological, pulmonary status and ECOG PS 0-1 were included in this prospective, randomized single institutional study. After receiving NACT with 5-Fluorouracil, Epirubicin, Cyclophosphamide followed by MRM and adjuvant Docetaxel, patients were randomized as-Arm A: HypoRT 40Gy/15#/3 weeks and Arm B: ConRT 50Gy/25#/5 weeks. The endpoints were locoregional control, toxicities and Progression Free survival (PFS).

Results: Forty nine patients (24 Arm A & 25 Arm B) were analyzed at a median follow up of 7 months. Baseline characteristics were comparable. The median age was 45 years. Majority of patients were postmenopausal and ER negative. Compliance to chemotherapy was similar and acceptable. Mean PTV coverage was 95.14% (Arm A) and 95.81% (Arm B) (P=0.225). Lung V20 and median cardiac doses were acceptable. There was no locoregional recurrence but distant metastasis occurred in 4/24 patients in Arm A Including 1 death vs. 3/25 in Arm B (p value 0.641). Acute and late toxicities in both arms were comparable except more acute Grade 3 skin toxicity in Arm B (48 %, P value 0.06). Mean PFS was 16.42 months vs. 16.4 months in Arms A and B respectively (p=0.651).

Conclusion: Although there are drawbacks of this study, it demonstrates that hypofractionated PMRT can be a viable option in LABC.

TITLE: PROSPECTIVE STUDY OF DOSIMETRIC EVALUATION COMPARING SINGLE CHANNEL VERSUS MULTICHANNEL VAGINAL APPLICATOR IN POST OPERATIVE ENDOMETRIAL CANCER PATIENTS UNDERGOING HIGH DOSE RATE VAGINAL CUFF INTRACAVITARY BRACHYTHERAPY.

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ABSTRACT

Introduction: Comparison of DVH, dose distributions, response rates and toxicities of vaginal vault and organs at risk (OARs) between multichannel vaginal applicator (Portio) and single channel vaginal Cylinder applicator in HDR Co60 brachytherapy (VBT) for postoperative endometrial carcinoma.

Material and Methods: In this single institutional, prospective randomized controlled study, 52 patients with stage IA G3, stage IG1,2 LVSI positive were randomly assigned to adjuvant intracavitary vaginal cuff BT(VBT) using single channel vaginal applicator or multichannel vaginal applicator.

Results: VBT dose per fraction 7.23 ± 0.831 Gy (5-9Gy). Pelvic EBRT was given in 12 patients in Portio vs 16 in Cylinder arm. IRCTV D90 EQD2 in Portio(n=27) and Cylinder(n=25) arms were 57.35 ± 17.53 Gy vs 55.47 ± 20.82 Gy (P=0.725). Bladder D2cc EQD2 (53.19 ± 21.37 Gy vs 56.22 ± 21.04 Gy P=.609), Rectum D2cc EQD2 (45.77 ± 22.67 Gy vs 56.48 ± 20.32 Gy, P=0.080) and Sigmoid colon D2cc EQD2 (38.08 ± 22.72 Gy vs 47.56 ± 22.16 Gy, P=0.135) were in favour of portio applicator. Two patients in cylinder applicator arm had locoregional recurrence in pelvic nodes and vault as well as metastasis in liver. Acute bladder toxicity was more in cylinder arm (48% vs 40.7% P=0.331) with increased late bladder toxicity (20% vs 11.1% P=0.375) & late rectal toxicity (28% vs 7.8% P=0.05) in cylinder arm. Acute GI toxicity was comparable in both arm (40.7% vs 40% P=0.957).

Conclusions: VBT is effective in ensuring better vaginal control, with fewer bladder & rectal toxicity with portio applicator for endometrial carcinoma of intermediate & high-intermediate risk.

AN INSTITUTIONAL RETROSPECTIVE STUDY COMPARING EPIDEMIOLOGICAL FACTORS, CLINICOPATHOLOGICAL FEATURES, PATTERNS OF RECURRENCE AND SURVIVAL IN PATIENTS WITH TRIPLE NEGATIVE BREAST CANCER AGAINST THOSE WITH NON TRIPLE NEGATIVE BREAST CANCER

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ABSTRACT

INTRODUCTION: Breast cancer is comprised of multiple biological subtypes that can be categorised by standard immune-histochemical markers. The identification of epidemiological factors and disease characteristics associated with Triple Negative (ER, PR, Her2neu Negative) Breast Cancer is hampered by absence of data on large populations. This study is a small endeavour to analyse the said factors in the setting of a tertiary care centre in Kolkata.

OBJECTIVES: To identify the epidemiological factors, pathological characteristics and patterns of recurrence in patients with Triple Negative Breast cancer (TNBC) and to analyse how they compare to the other variants of breast cancer.

MATERIALS AND METHODS: Patients of Ca Breast who presented at the Department of Radiotherapy, MCH between January 2012 and December 2013, with Tumour stage I to III, had a complete IHC workup, completed the full course of treatment in a compliant manner and were on regular follow up for at least 2 years were selected. A sample size of 132 was taken. Statistical Analysis was done using IBM SPSS version 21.

RESULTS: Mean age of presentation was 43 years for TNBC compared to approximately 50 years for non-TNBC. 66.6% of TNBC occurred in the pre-menopausal age group compared to 37.9% in non-TNBC ($p = .002$). A higher percentage of TNBC patients presented with Stage III disease (60% vs 51%). 66.6% of TNBC had a high grade tumour histology compared to 16% for non-TNBC ($p < .001$). Lympho-vascular invasion is less common in TNBC (13% vs 48%, $p < .001$). Nodal involvement was seen in 86.6 % of TNBC (58.6 % in non TNBC). 2year recurrence free survival was 66.6% for TNBC against 72.4 % for non-TNBC ($p = .496$). 26.6% of recurrences in TNBC was in the form of brain metastasis which was however seen in only 8.3% in non-TNBC.

CONCLUSION: Triple Negative Breast Cancer was found to present at an earlier age and more in pre-menopausal women. Such patients presented more at a later stage and with higher histological grade of tumour compared to Non-TNBC patients. The 2year recurrence free survival was also lower in TNBC with TNBC showing a particularly higher tendency of brain metastasis.

TITLE : PAIN CONTROL AND IMPROVEMENT IN QUALITY OF LIFE WITH INTRAVENOUS ZOLEDRONIC ACID VERSUS ORAL IBANDRONATE IN MANAGEMENT OF PAINFUL BONE METASTASIS RECEIVING PALLIATIVE RADIOTHERAPY : A PROSPECTIVE RANDOMIZED STUDY

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Abstract

Objective:

In a prospective, randomized, single centre trial, i.v Zoledronic Acid (ZA) was compared with oral Ibandronate (IB) in the patients with painful bone metastases. Objectives were to assess pain control, analgesic requirement, Skeletal Related Events (SREs) and improvement in EORTC-QLQ-C15-PAL.

Materials and methods:

Between January 2015 to June 2016, patients with painful bone metastasis, 18 to 70 years, ECOG PS 1- 4 and Brief Pain Inventory pain score ≥ 4 with normal baseline parameters were randomized into Arm A: PallRT (20Gy/5#/1 week)+ZA (4mg IVq28 days) and Arm B same PallRT + IB (50 mg/day) with analgesics as per requirement.

Results:

48% patients were males with common primary sites in lung and prostate. For females breast was most common primary site. Only weight-bearing bones were affected in 9/15, ZA against 7/12, IB arms. Onset of pain relief was 9.27 ± 2.31 days ZA against 10.17 ± 2.86 days IB, p value 0.35. 4 patients in ZA vs 3 patients in IB used opioids. Repeated measures analysis showed significant changes in pain scores in both arms over the study period but comparisons between 2 arms were not significant, ($F 0.202, 107.133, df 1, p$ value 0.657. QoL improved for all patients but both arms shows equal efficacy, ($F 0.880, 658.065, df 1$) p value 0.358. 2 bisphosphonates comparatively do not defer in changes in analgesic scores during the study period ($F 1.330, 112.149, df 1$ P value 0.264). SRE were comparable in both arms (ZA, 2 patients) vs (IB, 3 patients).

Conclusion:

Improvement in QOL, better pain control and decrease in analgesics were comparable in both the arms for the small study population with comparable SREs.

Title: A Prospective Observational Study of clinical response and early toxicities of early glottic cancer in patients treated with Simulator based Conventional Telecobalt Radiotherapy vs 3D Megavoltage Radiation Therapy

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Abstract

INTRODUCTION: Radiotherapy (RT) considered curative in early glottic cancer (T1-2 N0 M0). For RT, either conventional Telecobalt or 3D-CRT is used. 3D-CRT planning is more time consuming, costly and sparsely available in radiotherapy centres in India compared to Telecobalt.

OBEJCTIVE: To compare the Treatment response & early toxicities between two treatment modalities.

METHODS: Prospective Observational study conducted at Saroj Gupta Cancer Centre and Research Institute (SGCCRI), Kolkata, from June 2014 to September 2015. Arm A patients (Total 24) were treated with conventional Telecobalt radiation and Arm B patients (Total 26) with 3DCRT technique using 6 MV Linear accelerator machine. Initially total 60 patients were included; 6 patients in Arm A and 4 patients in Arm B defaulted before starting of treatment. Treatment Responses were evaluated clinically by Fiber Optic Laryngoscopy (FOL), toxicities were assessed according to RTOG toxicity criteria- end of RT, 6 week and 3 months post radiation.

RESULTS: At 6 weeks treatment responses were CR: 83.3% in Arm A and CR 88.5% in Arm B. At 3 months, Recurrences 15 % in Arm A and 4.3% in Arm B. Results were not statistically significant. At the end of RT, Grade 3 Dysphagia noted - 4.2% in Arm A and no grade 3 toxicity in Arm B. At 6 weeks no Grade 3 toxicity in either arm. At 3 months, Grade 3- 4.3% in Arm B only. All results were not statistically significant. End of RT Skin toxicity Grade 3- 3.8% in Arm B. At 6 weeks: - No Grade 3 toxicity noted in either arm. At 3 months: - No grade 3 toxicities noted. All results were comparable. End of RT Laryngeal toxicity recorded were Grade 3- 12.5% in Arm A and 7.7% in Arm B. At 6 weeks, Grade 3- 12.5% in Arm A and 7.7% in Arm B. At 3 months, Grade 3- 4.3% in Arm B only. No statistical difference noted.

CONCLUSION: Considering treatment response and early toxicity no statistical difference found in between 3D-CRT and Telecobalt. Hence, Telecobalt RT is a suitable option for early glottic cancer patients from low economic background in India.

CONCURRENT CHEMORADIATION WITH CETUXIMAB FOR LOCALLY ADVANCED SQUAMOUS CELL CARCINOMA OF HEAD AND NECK-AN INSTITUTIONAL AUDIT

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ABSTRACT**AIM**

In the elderly and comorbid patients, chemoradiation (CTRT) with platinum compounds is associated with challenging toxicities. Recent studies showed CTRT with Cetuximab in locally advanced SCCHN (LAHNCC) is associated with comparable loco-regional control and less toxicities. But, the data from Indian population is very less.

METHODS

We performed a prospective observational study with elderly, LAHNCC patients undergoing CTRT. We used Cetuximab (400mg/m² loading-one week prior to RT, followed by 250mg/m² weekly during radiation as CTRT. Electrolytes (Na, K, Calcium and Magnesium) measurements were done at baseline and on weekly basis. We evaluated clinical response rate and overall toxicities. Patients are being followed up for long term outcome and toxicities.

RESULTS

Eleven elderly LAHNCC patients were included with ECOG PS 0-1 and Creatinine Clearance <50ml/min. Median no of cycles of Cetuximab was 8. Median RT dose around 66 Gy. Overall response rate 80 % (3 patients CR & 6 patients are PR). 4 patients have comorbidities (30%). Median follow up is 8 months (2-14 months). The most common grade 3-4 toxicities include mucositis (70%), skin reaction (50%), electrolyte imbalance (60%) and acneiform rash (100%). Treatment was discontinued in two (20%) pts due to toxicities and one (9%) death had occurred.

CONCLUSIONS

Treatment with Cetuximab as CTRT in LAHNCC with elderly and comorbid pts, had good clinical response rate with acceptable toxicities. Patients are being followed up for long term outcome analysis.

AWARENESS OF CERVICAL CANCER AND HPV VACCINE AMONG MOTHER ATTENDING IMMUNIZATION CLINIC IN WEST BENGAL.

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Introduction: Cervical cancer is one of the most common cause of cancer mortality among women although largely preventable .64,477 women died from the disease every year in India among 1,22,844 women diagnosed. In the pathogenesis of cancer cervix genital infection with oncogenic human papilloma virus(HPV) is necessary. There are 100 different viral genotypes, among them HPV 16 and 18 were indentified in about 70% of cervical cancer cases .One way of prevention of cervial cancer is through vaccination against oncogenic HPV types. At present two vaccines have been approved by the U.S. Food and Drug Administration(FDA).

Objective: To evaluate awareness of disease & HPV Vaccine among mother .

Material & Method: This is a cross –sectional study of 50 women attending immunization clinic. Informed consent was obtained from the women and they were given self administered questionnaire.

Result: It is found that awareness of cervical cancer and HPV vaccine among mother attended immunization clinic very limited(76% mother do not know about the disease and vaccine).Despite limited knowledge after receiving information about HPV vaccine 74% of mother wishes to give HPV vaccine for their daughter but only 26% mother want to take vaccine herself.

Conclusion: Quadrivalent vaccine helps protect against 2 types of HPV that causes 70% of cervical cancer and 2 more type that causes approximately 90% of genital warts .It also protect women of 9-26 years against about 72% vaginal cancer and up to 50% vulvar cancer.

A PROSPECTIVE EVALUATION OF INTERFRACTION CHANGE IN DOSIMETRIC PARAMETERS IN PATIENTS OF LOCALY ADVANCED CARCINOMA CERVIX UNDERGOING INTRACAVITARY BRACHYTHERAPY

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Background

Recent advances in technology have allowed the use of volumetric imaging in gynecological brachytherapy planning. Evaluation of interfraction organ deformation and its association with dose distribution are

essential to analyze the risk of acute and late adverse events on Organs at risk. Data from some of the recent series have highlighted the problem of interfraction dose variation in HDR brachytherapy using volumetric imaging modalities.

Purpose

Keeping these previous works in the background, the aim of this study is evaluation of interfraction change in dosimetric parameters by CT guided imaging of Target volumes and organs at risk along with its comparative analysis during the course of Intracavitary brachytherapy.

Methods

Following the completion of External beam radiotherapy, image (CT) guided High Dose Rate Intracavitary brachytherapy was with a strict bladder protocol. To analyse the interfraction change in detail, every applicator insertion was imaged to obtain dose volume histogram parameters. The GTV, IRCTV, HRCTV & OARs were contoured on the CT images based on the prebrachytherapy MR image and clinical findings as well as the present CT findings. Treatment of all the patients was provided by the GammaMedplus HDR afterloader machine using Iridium¹⁹². All the contours were compared with the initial reference CT images.

Results

For a sample size of 20 patients, the systematic dosimetric variations for all organs at risk, i.e. mean variations of D2cm3, were found to be minor (<5%), while random variations, i.e. standard deviations were found to be high due to large variations in individual cases. The D2cm3 variations (mean \pm 1SD) were $0.7 \pm 17.6\%$ and $3.4 \pm 23.1\%$ for the bladder and rectum. For HR CTV, the variations of D90 were found to be $-1.3 \pm 14.2\%$ for the whole sample. No statistically significant differences between the two groups were detected in dosimetric variations for the HR CTV.

Conclusion

Substantial variations occur in fractionated cervix cancer ICBT but the treatment approach has to balance uncertainties for individual cases by maintaining Institution based protocol against the use of repetitive imaging, adaptive planning and dose delivery.

Palliative radiation therapy in patients with locally advanced or metastatic head and neck carcinoma with QUAD SHOT regimen

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ABSTRACT

BACKGROUND:

To evaluate the symptoms relief and quality of life in patients with inoperable or metastatic head and neck carcinoma with QUAD SHOT regimes

MATERIALS AND METHOD:

This was a single arm study where external radiation was given for 2 days ,two fractions per day, 6hours apart for a total dose of 14 Gy. This regimen was repeated after 2 weeks if there was a good symptoms relief and improvement in quality of life and also if there was no tumour progression and the side effects were tolerable.

RESULTS:

Single arm study involving 10 patients of locoregionally advanced or metastatic disease .Out of these 6 patients completed 2 cycles of radiation and had good symptoms relief and improvement in the QOL, in 2 patient no improvements were seen and 2 patients defaulted after the 1st cycle. There were minimal treatment related toxicity.

CONCLUSIONS:

For patients with locoregionally advanced or metastatic disease in the head and neck, the palliative QUAD SHOT regimen provides excellent relief of symptoms and improvement in quality of life.

