

with CRT in the patients of uterine cervix of a tertiary cancer care centre. **Patients and Methods:** Retrospective study was performed in locally advanced/advance stage patients of cervix UTERI registered in the institute between years 2009 to 2013. Patients were included in the two groups, group A consists of 89 patients who have received NACT + RS and 67 patients in group B who have received CRT. Clinical records were reviewed with particular reference to presenting complaint, clinical stage, response to the therapy, disease free survival and overall survival. Statistical analysis was done using SPSS version 22.

Results: In the neoadjuvant group (group A) (n=89) the median age of patients was 53 years (range 31-80 years), most of the patients (70%) were presented with complaint of postmenopausal bleeding. Of the total patients, 69 (77.5%) underwent to radical surgery and 5 (8.5%) received radiotherapy after NACT. From 69 patients, who had undergone to surgery, 54 (78.3%) had also received radiation. The overall response to induction chemotherapy was 84%. In the chemo radiation group (group B) (n=65) median age was 56 years (33-75 years). Vaginal bleeding (34%) followed by postmenopausal bleeding (32%) was major presenting complaint in this group. Overall response to the complete treatment was 91%. The median follow up time was 14.3 months in group A and 12.2 months in group B. The disease free survival for NACT group was 32 months (95% CI 26.8-36.5) whereas for CRT group it was 28 months (95% CI 23.5-33) with 12 and 13 recurrences per group (p = .226). In NACT group overall survival was 46.2 months (95% CI 44-48.3) and for CRT group it was 38.3 months (95%CI 36.6-40) with 3 and 2 deaths per group (p=.883). **Conclusion:** Present study shows comparable results, with no difference in survival between both the groups. However, NACT + RS group had showed better disease free and overall survival than another group. Further studies should be performed with larger number of patients and longer duration of follow up.

Cervix: Oral Abstract

Radiotherapy after hysterectomy in carcinoma cervix: Audit from a tertiary care cancer hospital in India's largest state "Rajasthan"

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Purpose: To explore the reasons of hysterectomy and indications of post-hysterectomy radiotherapy in carcinoma cervix cases.

Methods: From January 2013 to May 2015, medical records of 64 cases of carcinoma cervix (post-hysterectomy) who were referred for radiotherapy to our hospital were analyzed retrospectively.

Results: Medical records of 64 cases were reviewed. The median age was 47 years. In 45% of females hysterectomy was done in towns, but in majority of cases (55%) hysterectomy was done in different cities of Rajasthan. Simple hysterectomy was done in 31 of (48%) cases. Wertheim's hysterectomy was done in remaining 33 cases (52%). 15 cases (23%) were treated by IMRT technique, while remaining 87% cases were treated by 3DCRT technique to dose of 50 Gy in 25 fractions followed by CVS brachytherapy. All cases also received concurrent chemotherapy. Reason for hysterectomy was analyzed. In 32 (50%) cases, biopsy from gross lesion at cervix or PAP smear test was not done before surgery. In 32 cases (50%) understaging of the tumor or inadequate staging before hysterectomy was performed. Histopathology report analysis revealed that in 9 cases (14%) primary tumor size was less than 4 cm, in 27 cases (64%) there was no comment on pT size, in 22% cases primary tumor was larger than 4 cm. Surprisingly in one case the pT size was 7 cm. LVSI was not seen in 18 cases (28%), positive in 20 case (31%) and with no comment in 26 cases. More than 50% of stroma thickness was involved in 54 cases (84%), and in remaining 10 cases there was no comment on stroma invasion. In 33 cases (52%) pelvic lymphadenectomy was done, in 48% cases lymph nodes were not addressed in surgery. In 36 cases (56%) pelvic lymph node metastasis was seen either in preoperative imaging (USG/CT scan) or in histopathology. Median follow-up duration was 6 months. Locoregional failure was seen in 10 cases (16%), 6 cases (9%) also developed distant metastasis.

Conclusion: Failure to perform biopsy from gross lesion at or under staging/inadequate staging before surgery was the main reasons for inappropriate hysterectomy for carcinoma cervix. Inappropriate hysterectomy followed by chemo-radiotherapy resulted in poor tumor control rate as in our study,

1 out of every 4 patients failed loco-regionally with median follow up of 6 months. Strict adherence to guidelines for cervical cancer diagnosis and treatment is advised to prevent inappropriate hysterectomy.

Cervix: Poster Abstract

Cervical cancer screening of female of rural community of Nepal: Knowledge, attitude and practices

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Purpose and Objectives: Cervical cancer is leading female cancer in Nepal. Despite the existence of effective screening using Pap smear, the uptake of screening is poor. This is mainly due to lack of knowledge, lack of availability of services in rural area and low priority of women's health issue. Objectives of this study were to determine the baseline information about the knowledge of cervical cancer and explore attitude and practice of Pap smear screening among the women of rural community of Nepal.

Materials and Methods: A cross sectional population based descriptive study of female attending free health camp in different rural community of Nepal organized by Nepal Cancer Hospital was conducted using self-administered questionnaire to elicit information on demographic characteristics, knowledge, screening behaviors and determinants of cervical cancer. Knowledge is elicited about eligibility for screening and screening interval according to American Congress of Obstetricians and Gynecologists (ACOG) guidelines. Practices are evaluated as having ever been screened themselves. Attitudes referred to the various reasons for not getting screened themselves.

Results: A total of 500 women participated in this study, out of which 44.4% (228) were either illiterate or just educated up to primary school. Mean age of participants were 40.6 ± 10.3 yrs. 47.4% (238) of women married before age of 18 and 57% (258) women had their first childbirth before age of 21 years. Only 33.8% (169) female knew that cervical cancer is preventable and is curable in early stage. Although 42.6% (213) women heard about Pap smear, only 38.2% (191) knew about eligibility of screening and 11% (55) knew about screening interval. However, knowledge of risk factors for cervical cancer was found in 8.2% (41). About 26.8% (134) women had done Pap test at least once. The most common reason for not doing Pap test is they never heard about it (41.8%: 209). The other reason includes do not know where to do (9.6%: 48); never advised by doctor (9%: 45); embarrassment (2.4%: 12); fear of finding out cancer (3.2%: 16) and do not have any symptoms (2.4%: 12).

Conclusions: The study revealed low cervical cancer knowledge and poor screening behavior among the women. This may be suggestive of even poorer awareness and screening and practices among older women who are less educated or with no education.

Cervix: Oral Abstract

Image guided interstitial brachytherapy for locally advanced disease after external beam radiotherapy in a case of carcinoma cervix – our institutional experience

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Purpose/Objective: Cervical cancer is the third most common cancer in women worldwide. Definitive chemoradiation is the accepted standard of care for patients especially for locally advanced cervical cancers. Intracavitary brachytherapy (ICBT) is an important part of definitive radiotherapy shown to improve overall survival. Interstitial brachytherapy (ISBT) is generally reserved for patients either with extensive pelvic and/or vaginal residual disease after external beam radiotherapy (EBRT) or with anatomy not allowing ICBT with standard applicators in an attempt to improve local control. We have conducted an observational study for patients who underwent image guided HDR-ISBT at our institute.

Materials and Methods: Seven patients; diagnosed as a case of carcinoma cervix; were selected from the period of 2012 to 2015 who received EBRT by IMRT and for whom ICBT couldn't be done for various reasons. These patients were then taken up for Martinez Universal Perineal Interstitial

Template (MUPIT) image based ISBT. A descriptive analysis was done for doses received by HRCTV, bladder, rectum and sigmoid colon. At the end of treatment, early response at 3 months along with overall survival (OS) and disease free survival (DFS) was also calculated.

Results: All the patients recruited were locally advanced with 3 patients in IIB, 1 patient in IIIA and 3 patients belonging to IIIB. The mean dose received by 95% high risk CTV (HRCTV) by IMRT was 49.75 Gy. Out of 7 patients, 3 were taken up for ISBT due to anatomical restriction whereas remaining 4 patients were included because of lack of dose coverage by ICBT. The mean doses received by 90% of HRCTV, 2 cc bladder, 2 cc rectum and 2 cc sigmoid colon were 20.58 Gy, 2.73 Gy, 3.19 Gy and 2.82 Gy respectively. The early response at 3 months was 57.14%. The DFS at one year and OS at 3 year were 53.6% and 53.3% respectively.

Conclusions: Our descriptive analysis of seven patients being treated by image based ISBT have revealed that locally advanced cervical cancer patients for whom ICBT is unsuitable can achieve equitable LRC and OS with a combination of EBRT by IMRT and image based HDR-ISBT.

Cervix: Poster Abstract

Breaking the myth: All carcinoma cervix presenting as pyometra will have only palliative treatment

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Introduction: Carcinoma cervix is the second most common female carcinoma. Every year in India, 1,22,844 women are diagnosed with carcinoma cervix and of them 67,477 die. Carcinoma cervix rates among women in the age group between 30-64 has decreased by 1.8% per year on average but still date account for 16%. Of these, advanced carcinoma are about 80% and early are only 20%.

Case Series: We are reporting 5 consecutive early carcinoma cervix cases who presented with pyometra and got treated at our hospital from April 2015-September 2015. Cases of early carcinoma cervix presented with pyometra were treated by pyometra drainage, intravenous antibiotics and appropriate treatment in the form of surgery (4 cases underwent Wertheim's hysterectomy and 1 case had radical chemo radiation as she opted for same in view of high cardiac risk for anaesthesia). All 5 of them are disease free at the end of treatment with follow up of minimum 4 months duration (range 4-10).

Conclusion: The idea is to emphasize that all carcinoma cervix with pyometra are not necessarily advanced and can still be given radical treatment like surgery or radiotherapy after pyometra drainage.

Cervix: Poster Abstract

Comparative dosimetric study between point and volume based brachytherapy in definitive treatment of de novo carcinoma cervix

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Introduction: Cervical cancer has a high incidence in developing countries including India. Brachytherapy (BT) is an important component in the curative management of carcinoma of the cervix, and significantly improves survival. In gynaecologic BT, correlation between the radiation dose and the normal tissue effects have been assessed using point doses. Since 1985, these points have been defined in the international commission of radiation units and measurements (ICRU-38) report. However GEC-ESTRO recommended volume based treatment planning in their respective series (I-IV). For cervical cancer BT, the correlation of ICRU point doses and volume based treatment planning is investigational till date. Analysis becomes feasible when cross sectional image-based treatment planning for BT using computerized tomography (CT) or magnetic resonance imaging (MRI) is utilised as per GEC-ESTRO recommendation.

Methods: It is a retrospective pilot study includes patients (pts.) of carcinoma cervix treated with high dose rate (HDR) BT 9 Gy in 2 fractions 1 week

apart. All volume based dosimetric parameters regarding high risk clinical target volume (HRCTV), intermediate risk clinical target volume (IRCTV) like D90, D100 and for organ at risk (OAR) D 0.1 cc, D 1.0 cc and D 2.0 cc were delineated and dose coverage was analysed in point dose based planning.

Results: We have analysed twenty pts. of squamous cell carcinoma (SCC) cervix. The median age was 52 yrs. (41-65 yrs), stage II B 10 pts. & III B 10 pts. The mean value of D90 & D100 in HRCTV during I and II session were 8.64, 6.75 and 5.76, 4.36 Gy respectively. Same values for IRCTV were 6.31, 4.91 and 3.68, 3.15 Gy respectively. Analysis of OARs demonstrated that mean dose received by 0.1, volume of bladder during I and II session received 10.68, 9.47, by 1 cc volume 8.39, 7.57 and by 2 cc volume 6.84, 6.21 Gy respectively. The mean dose received by 0.1 cc of rectum were 11.59, 10.12, by 1 cc volume 9.53, 8.19 and by 2 cc volume 7.76, 6.81 Gy respectively. In point based analysis mean dose delivered to bladder point during I and II session were 5.63, 6.02 and to rectum point were 5.98, 5.46 Gy respectively. Doses to 0.1 cc volume of bladder and rectum were higher in volume based BT as compared to point based BT in respective fractions. **Conclusion:** Both HRCTV and IRCTV had better dose coverage in 1st fraction as compared to 2nd fraction. Point doses to bladder and rectum is underestimated in point based (ICRU-38) BT. We need more number of pts in prospective randomized trial for more consistent result.

Cervix: Poster Abstract

Primary clear cell adenocarcinoma of cervix in a young women: A rare entity

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Cervical cancer is the most common gynaecological malignancy worldwide. The most common type of cervical carcinoma is squamous cell carcinoma followed by adenocarcinoma of cervix, which constitutes only 15% of cases. Adenocarcinoma of cervix can be categorized histologically into clear cell, mucinous, endometrioid, serous and mesonephric subtypes. Clear cell adenocarcinoma (CCA) most commonly occurs in the ovary, followed by endometrium, vagina, and cervix. Primary CCA of cervix is a rare neoplastic entity, which occurs in young women exposed to diethylstilbestrol (DES) *in utero*. It is extremely rare in women without *in utero* DES exposure and in such cases it concerns mostly postmenopausal women. Here, we present a case of 30 year old woman who presented with primary infertility. There was no history of in-utero exposure to diethyl stilbestrol. She was diagnosed a case of cervical fibroid on ultrasonography. Diagnostic hysteroscopy was done and she was found to have friable, vascular growth in endocervix, which was extending to uterine cavity. Biopsy was taken. On histopathology, moderately differentiated clear cell adenocarcinoma of cervix was reported. Through this case, authors would like to highlight the probability of rare occurrence and how to manage challenges posed by cervical cancer in young girl wishing to conceive, stressing on the role of hysteroscopy in diagnosis.

Key words: Adenocarcinoma, cervix, DES exposure

Cervix: Poster Abstract

Carcinoma uterine cervix metastasis to the skin: A rare case report

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Introduction: Most common site of metastasis from carcinoma cervix is lung, liver, bone and brain. Cutaneous metastasis is rare occurrence in carcinoma cervix. Incidence reported ranges from 0.1 to 2%. Common morphological pattern of skin metastases are nodules, plaques and inflammatory telangiectatic lesions.

Materials and Methods: A 68 years old postmenopausal female diagnosed as squamous cell carcinoma of cervix stage III B. She was given chemotherapy and radiotherapy and on regular follow up without no evidence of disease locally. After two years she presented with a sub cutaneous nodule of