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Aim: To investigate the presence of reproductive tract infections (RTIs) in symptomatic and asymptomatic women in North India and association of SNPs in TNFα gene (rs-281865419 C/T) with susceptibility to these RTIs.
Methods: We collected 100 symptomatic (cases) and 100 asymptomatic women (controls) samples and screened them for RTIs. Then genotyping of TNF-α gene was performed by PCR-RFLP.
Results: Among cases the frequencies of RTIs infection is higher than control. The prevalence of HPV, *C. trachomatis, T. vaginalis*, Bacterial vaginosis and *N. gonorrhoeae* are 28% & 6%; 11%, 32% respectively while in controls it was 5%, 2%, 1% and 8% & 1%. In the present study we found that the frequency of wild homozygous genotype (TT) was lower in cases 30% (6/20) as compared to controls 60% (12/20). The frequency of the heterozygous polymorphic genotype (CT) was higher in cases 65% (65/100) as compared to controls 32% (32/100). It was interesting to note that the frequency of the polymorphic homozygous genotype (CC) was higher in cases 15% (15/100) than controls 2% (2/100). While the frequency of the carrier genotype (CT + TT) was found to be more in cases 70% (70/100) than in controls 40/100 (40%). This study shows that T allele may be risk factor for Reproductive tract infections as its percentage is higher in cases as compare to normal controls.
Conclusion: TNF-α rs-281865419 locus may serve as an important biomarker for RTIs predisposition in Indian population though larger sample size is needed to validate the findings.

Cervix: Oral Abstract

Chemoradiation for the management of locally advanced carcinoma uterine cervix: Comparative evaluation of concomitant weekly versus three weekly cisplatin

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Aims and Objectives: To determine and evaluate the difference/s, in terms of tumor control and side effects, between weekly and three weekly cisplatin concomitant with external beam radiotherapyfor locally advanced carcinoma of cervix.
Materials and Methods: The study was conducted in Radiotherapy Department, University of Health Sciences, Rohtak (India), on sixty previously untreated, histopathologically proven patients of locally advanced carcinoma of uterine cervix. The patients were treated with External Beam Radiotherapy (EBRT) 50 Gy/25 fractions over 5 weeks and concomitant cisplatin, followed by intra-cavitary HDR brachytherapy (ICBT) 700 cGy to point A; three times, once in a week. The patients were assigned randomly either of two groups of 30 patients each. In Group I (Study Group) the patients received three weekly cisplatin 75 mg/m^2 for 2 cycles whilein Group II (Control Group) the patients received weekly cisplatin 40 mg/m^2 for 5 cycles. Evaluation of response and toxicity was done weekly during treatment and monthly thereafter up to six months. The data thus obtained was assessed and analysed using La Morte statistical tool. The study was approved by Ethical committee of the institute and quality was periodically monitored by senior consultant and guide.
Results: Stage wise disease response in study and control respectively at the end of treatment was as follows: Stage IIA-CR (80% vs 100%), PR (20% vs 0%); Stage IIB-CR (80% vs 76.47%), PR (20% vs 23.53%); Stage IIIA-CR (60% vs 100%), PR (40% vs 0%); Stage IIIB-CR (60% vs 60%), PR (40% vs 20%), NR (0% vs 20%). Stage wise disease status at the end of sixth month follow up was as follows: Stage IIA – NED (80% vs 100%), RD (20% vs 0%); Stage IIB – NED (80% vs 76.67%), RD (20% vs 23.53%); Stage IIIA – NED (60% vs 100%), RD (40% vs 0%); Stage IIIB - NED (60% vs 60%), RD (40% vs 40%). Tumor response was not significantly different in the two groups with respect to age distribution, rural/urban distribution, histopathological distribution and treatment interruption. Maximum level of hematological toxicity (WHO criteria) observed in study and control group respectively at the end of treatment was as follows: Anaemia; Grade II - 4 (13.33%) in both the groups, Leukopenia; Grade II - 1 (3.33%) vs 0 (0%). The worst acute skin reactions observed by the end of treatment in Group I and II respectively were grade II - 2 (6.67%) vs 0 (0%). The worst acute mucosal reactions were grade II - 5 (16.66%) vs 0 (0%). Upper Gastrointestinal toxicity (Grade II & III) was 16.7% versus 13.3% respectively. Lower gastrointestinal toxicity (Grade II & III) was 30.0% versus 36.7%. No significant weight loss was observed in either of the groups. Though, all the patients completed the intended treatment, treatment interruption for more than a week was observed in 10 (33.33%) vs 8 (26.67%) patients respectively, due to acute toxicities.
Conclusion: Three weekly cisplatin, concomitant with radiation seems to be the potential, effective and acceptable alternate as standard of treatment for locally advanced carcinoma cervix; especially for increased work load and limited resource setups.

Cervix: Oral Abstract

To evaluate the role of training session on 'Cervical Cancer Screening' in improving knowledge and attitude of Accredited Social Health Activists (ASHA) in East Delhi population

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Background: India has the world's largest load of cervical malignancy. A lot of it can be attributed to lack of cervical cancer screening awareness among the general population. The Accredited Social Health Activists (ASHA) are grass root workers who have good reach in the remote areas, where health care facilities are lacking. Training these ASHAs may increasethe general awareness about cervical cancer screening.
Methods: We organized a training programme of 250 ASHA workers in a tertiary care hospital with aim of improving their knowledge and attitude about cervical cancer screening which will eventually improve their practise of training women in general population. It comprised of 5 lectures in language they understand, slogans, posters, question answer session etc. A test comprising of 17 questions was conducted before and after session to check their knowledge and attitude.
Results: There was an overall improvement of 25% in knowledge of the ASHAs i.e. 38% answers were correct in pre-test and 63% were correct in post-test. Questions were pertaining to symptomatology, risk factors, screening methods, their utility and prerequisites of performing the screening tests, when and how often to repeat. Improvement was seen in all the areas. There was improvement in attitude too and most of them wanted themselves (98%), their relatives (100%) and the woman within their area (98%) to be screened for cancer cervix.
Conclusion: It was a small initiative and successful result was obtained after the training session of ASHAs. The impact on general population needs further evaluation.

Cervix: Poster Abstract

Neo-adjuvant chemotherapy followed by surgery versus definitive chemo radiation as treatment for localized carcinoma cervix

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Background: Cervical cancer is ranked as the most common cancer in Indian women, second most common cancer worldwide and the leading cause of death in the developing countries. In the developing countries majority of the patients are diagnosed at locally advanced stages. The standard treatment of locally advanced cervical cancer is concomitant chemoradiation (CTRT) using platinum based chemotherapy. However, some randomized studies have shown improved results for patients receiving neoadjuvant chemotherapy (NACT) followed by surgical resection in comparison to patient receiving radiation alone. The present study was designed to compare response to the treatment and survival of and NACT followed by radical surgery (RS)

with CTRT 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 CTRT. 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 CTRT 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 CTRT 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 participates 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 adviced 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