

Cervix: Oral Abstract

Comparison of the outcomes between locally advanced cervical squamous cell carcinoma and adenocarcinoma patients treated with definitive chemoradiation

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Objective: To present comparison of survival outcomes between locally advanced adenocarcinoma and squamous cell carcinoma patients treated with definitive chemoradiation.

Methods: It is a retrospective analysis and direct comparison between adenocarcinoma and squamous cell carcinoma cervix treated from January 2011 to December 2015. Of 73 patients analyzed 61 had squamous carcinoma histology and remaining 12 had adenocarcinoma. Inclusion criteria were patients with locally advanced stage (IIA) who have completed definitive chemoradiation and were available for response evaluation at 3 months of completion of treatment. Endpoints for the study were disease response evaluation at 3 months, progression rate, median progression free survival, median recurrence free survival, median loco-regional control, median distant metastasis free survival, median overall survival.

Results: There was no significant difference between the two histology groups with respect to rate of achieving complete response (78.6 vs 75%, $p = 0.718$) and rate of disease progression (36% vs 50%, $p = 0.517$). There was no significant difference between median PFS (57.75 vs 17.74 months; $p = 0.964$), median RFS (NR vs 66.03 months; $p = 0.876$), median loco-regional control (not reached for both; $p = 0.315$), median DMFS (NR vs 66.03 months; $p = 0.438$) and median OS (NR vs 66.13 months; $p = 0.884$).

Conclusions: Locally advanced squamous cell carcinoma and adenocarcinoma treated with definitive chemoradiation have similar outcomes. Small sample size is the limitation of this study.

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Role of complementary cytology, colposcopy and histopathology in detecting premalignant and malignant lesions of cervix

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Objective: Cervical cancer is the second most common gynecologic malignancy worldwide. India alone accounts for one fifth of total number of cases worldwide. The aim of our study was to calculate sensitivity, specificity, positive predictive value, negative predictive value, false positive rate and false negative rate of complementary cytology and colposcopy with histopathology as gold standard for detection of premalignant and malignant cervical lesions.

Methods: A cross sectional study was conducted at Vardhman Mahavir Medical College and Safdarjung hospital, Delhi, India. 100 non pregnant females with complaint of post coital or irregular vaginal bleeding and those who had unhealthy cervix on visual inspection were included in study.

Results: Colposcopy exhibited a high degree of accuracy in diagnosis of high grade lesions. Overall sensitivity of cytology was 50% whereas that of colposcopy was 83.3%. Cytology had specificity of 93.4% whereas colposcopy had specificity of 89.4%. 100% of high grade and invasive cancers on colposcopy were associated with similar findings on histology. The degree of agreement between cytology and colposcopy with histology was significant ($p < 0.001$).

Conclusion: Colposcopy is sensitive method as compared to cytology, especially in the higher grade lesions and combination of both methods appears to be of higher diagnostic importance.

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The impact of tumour regression in locally advanced carcinoma cervix during external beam radiotherapy and the need for adaptive planning

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Aim: To study the impact of tumour regression occurring during IMRT for locally advanced Carcinoma cervix and study dose distribution to target volume and OARs and hence the need for any replanning.

Methods and Materials: 40 patients undergoing IM-IGRT and weekly chemotherapy were included in the study. After 36Gy, a second planning CT-scan was done and target volume and OARs were recontoured. First plan (non-adaptive) was compared with second plan (adaptive plan) to evaluate whether it would still offer sufficient target coverage to the CTV and spare the OARs after having delivered 36Gy. Finally new plan was created based on CT-images to investigate whether creating a new treatment plan would optimize target coverage and critical organ sparing. To measure the response of the primary tumour and pathologic nodes to EBRT, the differences in the volumes of the primary GTV and nodal GTV between the pretreatment and intratreatment CT images was calculated. Second intratreatment IMRT plans was generated, using the delineations of the intratreatment CT images. The first IMRT plan (based on the first CT-scan or non adaptive plan) was compared with second IMRT plan (based on the second CT-scan or adaptive plan).

Results: 35% patients had regression in GTV in the range of 4.1% to 5%, 20% in the range of 1.1%-2%, 15% in the range of 2.1%-3% and 20% in the range of 6%-15%. There was significant mean decrease in GTV of 4.63cc ($p=0.000$). There was a significant decrease in CTV on repeat CT done after 36Gy by 23.31cc ($p=0.000$) and in PTV by 23.31cc ($p=0.000$). There was a statistically significant increase in CTV D98, CTV D95, CTV D50 and CTV D2 in repeat planning CT done after 36Gy. There was no significant alteration in OARs doses.

Conclusion: Despite tumour regression and increased target coverage in locally advanced carcinoma cervix after a delivery of 36Gy there was no sparing of OARs. Primary advantage of adaptive RT seems to be in greater target coverage with non-significant normal tissue sparing.

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Clinical comparison of toxicity pattern of two linear quadratic model-based fractionation schemes of high-dose-rate intracavitary brachytherapy for cervical cancer

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Introduction: Carcinoma cervix is the fourth (GLOBACON 2012) most common cancer among women worldwide, and the main cancer affecting women in Sub-Saharan Africa, Central America and south-central Asia. In India, approx. 1,23,000 (GLOBACON 2012) new cases of carcinoma cervix are diagnosed each year. Brachytherapy is an integral part of treatment of cancer cervix. In the context of a developing country like us where maximum utilization of the resource is of prime importance to provide treatment to the large patient cohort, shortening the treatment duration