negative), regrouped cohort A (all node positive cases with FIGO stage IA2 to IIB), IIIA and IIBB patients, respectively (P < 0.001).

Conclusion/Implications

The prognosis of early-stage cervical cancer with nodal metastases is significantly better than that of stage IIIB and worse than IIB. The findings support to stratify these patients into a new substage IIC in FIGO staging system.

EP076/#462

RADIATION QUALITY AND WORKFLOW IN NRG GY017: ANTI PD-L1 (ATEZOLIZUMAB) AS AN IMMUNE PRIMER OR CONCURRENTLY WITH RT FOR NODE POSITIVE LOCALLY ADVANCED CERVICAL CANCER

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Introduction

Advances in RT planning enhance the need for uniform quality oversight on clinical trials. NRG GY-17 was a randomized trial of the anti PD-L1 antibody, atezolizumab, before and concurrent (Arm A) or concurrent with CRT (Arm B). We describe the prospectively collected pre-treatment RT quality and workflow.

Methods

40 patients were consented; 36 patients with locally advanced, LN+ cervical cancer were randomized. IMRT contouring guidelines and dose specifics were outlined in the protocol with deviations specified as per protocol and major. Each site had to pass a rigorous IMRT credentialing process. Sites were required to submit a pre-treatment IMRT plan for physician expert contour target and organ at risk review in a rapid pre-treatment manner. The expert physician then scored the contours and plan as per protocol or as a major deviation. For major deviations the sites were required to revise and resubmit the plans which were then re-reviewed prior to protocol start.

Results

The median follow-up time was 20 months. 37 participants had central review of the pre-treatment EBRT plan. 13 plans (33%) were scored as a major deviation requiring revision: 11 due to contours (5 bowel and 6 LN) and 2 due to incorrect expansion/dose. The major deviation plans were resubmitted and passed; 2 required revisions for a total of 3 plans.

Conclusion/Implications

Our data indicate that 33% of the submitted advanced technology IMRT plans required revision and resubmission in order to meet per protocol standards. Pre-treatment plan review is an important quality measure for cervical cancer clinical trials.

EP077/#1445

THE HPV E4 IS A CANDIDATE BIOMARKER IN CERVICAL INTRAEPITHELIAL NEOPLASIA GRADE 2

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Introduction

HPV E4 protein is synthesized as a E1^E4 fusion protein as a result of mRNA splicing. The knowledge regarding the functions of E1^E4 during the viral life cycle remains incomplete. It is safe to suggest that the protein is involved in virus release and transmission and that it is a marker of the onset of productive infection. However, the potential role of E4 as a tool to stratify cervical intraepithelial...
neoplasia (CIN), and to detect HPV-associated lesions that may progress towards CIN2+, has been reported in multiple publications recently. The management of CIN2 is still controversial, prompting us to investigate the correlation between E4 expression and prognosis of lesions classified as CIN2.

Conclusion/Implications The E4 expression was correlated with progression/regression of CIN2. These data suggest that the HPV E4 expression is a candidate biomarker for prognosis of CIN2.

EP078/#759 THE INFLUENCE OF DEMOGRAPHIC AND CLINICAL FEATURES ON THE RECEIPT OF RADIOTHERAPY FOR WOMEN WITH CARCINOMA OF THE CERVIX IN GHANA

Introduction Cervical cancer is a significant public health issue in Ghana. Most cases of the disease are diagnosed at an advanced stage where radiotherapy treatment will be required. We evaluated how demographic and clinical features of women with invasive cervical cancer influenced the receipt of radiotherapy in two large referral hospitals in Ghana.

Methods We conducted a retrospective study of 1,725 women diagnosed with invasive cervical cancer between 1st January 2010 and 31st December 2013. Multivariable logistic regression was used to evaluate the odds of receiving radiotherapy by patient demographic and clinical features associated with financial barriers to care.

Results Women who lived in other African countries but receiving treatment at one of the two centers in Ghana were more likely to receive radiotherapy compared with women who lived in a metropolis in Ghana (unadjusted OR: 4.1; 95% CI: 2.5–6.9). Additionally, women living in a semi-urban region of residence were more likely to receive radiotherapy compared with those living in a metropolis (unadjusted OR: 2.4; 95% CI: 1.6–3.5). Women less likely to receive radiotherapy tended to have three or more comorbidities (unadjusted OR: 0.2; 95% CI: 0.1–0.5), be recruited at the gynecology unit (unadjusted OR: 0.01; 95% CI: 0.002–0.01) and not have cancer histologically confirmed (unadjusted OR: 0.004; 95% CI: 0.002–0.01).

Conclusion/Implications Conclusion: Women from other African countries may be fee-paying for radiotherapy treatment as opposed to being refugees. There are opportunities to improve the outcome for women with cervical cancer in Ghana by reducing financial barriers to access for radiation therapy.

Abstracts

EP079/#533 THE PREVALENCE AND DISTRIBUTION PATTERN OF CERVICAL HIGH-RISK HPV GENOTYPE INFECTIONS AMONG WOMEN WITH HIGH-GRADE PRE-INVASIVE AND INVASIVE CERVICAL CANCER IN LAGOS, NIGERIA

Introduction High-risk HPV (hr-HPV) has been identified as the key etiology in the development of high-grade pre-invasive and invasive cervical cancer (CIN2+/ICC). However, little is known about the distribution of cervical hr-HPV genotypes associated with CIN2+/ICC in Lagos, Nigeria. We sought to investigate the hr-HPV genotypes responsible for CIN2+/ICC in Lagos, Nigeria.

Methods The study was conducted as part of the Nigeria U54 study. DNA extract was obtained from cervical tissues obtained from women with confirmed CIN2+/ICC. Anyplex II HPV HR detection kit was used to detect the presence of 14 hr-HPV genotypes. Genotype-specific prevalence rates were computed and pattern of infection described.

Results The overall prevalence of hr-HPV infection was 91.1%. hr-HPV 16, 18, 35, and 51 were the most common genotypes isolated with genotype-specific prevalence rates of 50.0%, 33.3%, 12.2%, and 7.8% respectively. hr-HPV 39 (0.0%), 31 (1.1%), 68 (1.1%), 56 (2.2%) & 66 (2.2%) were the least prevalent genotypes. The prevalence of single and multiple hr-HPV infections were 55.6% and 35.6% respectively. Though the presence of hr-HPV 16 & 18 was predictive of having it on multivariable analysis (P<0.05), it was not predictive of having it on multivariable analysis (P>0.05). hr-HPV 16/18 remained a major hr-HPV genotype in Lagos, Nigeria.