Int J Gynecol Cancer 2023;33(Suppl 3):A1–A453

A55

the fossa ovalis. Sentinel lymph node was visualized with fluorescence near-infrared detection and then resected. Conclusion We believe that this approach to inguinal sentinel lymph node identification and excision may be associated with a reduction in incision-related postoperative complications without compromising the ability to effectively identify any lymph node metastases that impact post-operative management and patient prognosis. Prospective randomized clinical trials are needed to clarify whether this type of procedure will replace the inguinal approach to inguinal sentinel lymph node biopsy as the standard technique in the surgical treatment of vulvar carcinoma.

Disclosures None

Poster/ePoster Sessions

01. Cervical cancer

#15 BONE MARROW TOXICITY IN PELVIC CHEMORADIATION
Suryanka Acharya*, Assam Cancer Care Foundation, Lakhimpur, India; PAY-W Clinic, Nayagarh, India

Introduction/Background Cervical cancer is the 4th most common cancer in women with most of them needing pelvic chemoradiation. This study compared bone marrow sparing intensity modulated radiotherapy (BMS-IMRT) with bone marrow sparing IMRT arc therapy (BMS-Rapid Arc) in reducing grade 2 or higher hematological toxicity in cervical cancer patients treated with concurrent chemoradiotherapy.

Methodology 24 cervix cancer patients with stage Ib2-IIb were equally divided between BMS-IMRT group and BMS-Rapid Arc group. All patients received external beam radiation of 50 Gy in 25 fractions with concurrent weekly cisplatin. Baseline hematologic parameters were evaluated before radiation and every week during external beam radiation. The endpoint of the trial was grade 2 or higher acute hematological toxicity, measured by CTCAE version 5.0.

Results 24 patients were enrolled with 12 patients in each group. Both groups had witnessed 50% (6 out of 12) chance of developing grade 2 or higher hematological toxicity. Mean bone marrow dose was 26.9 Gy in BMS-IMRT group and 26.1 Gy in BMS-Rapid Arc group.

Conclusion The risk of developing grade 2 or higher acute hematological toxicity in cancer cervix patients undergoing chemoradiation remains similar in both BMS-IMRT and BMS-Rapid Arc groups. However, mean bone marrow dose achieved in BMS-Rapid Arc plan is lower compared to BMS-IMRT. The other important point, cisplatin also contributes to hematological toxicity.

Disclosures None

#19 THE OUTCOME OF LOCALLY ADVANCED CERVICAL CANCER IN PATIENTS TREATED WITH NEOADJUVANT CHEMOTHERAPY FOLLOWED BY RADICAL HYSTERECTOMY AND PRIMARY SURGERY
Azam Sadat Mousavi*, Tehran University of Medical Sciences, Tehran, Iran

Introduction/Background Background: In recent years, before radical hysterectomy, neoadjuvant chemotherapy (NACT) has been administered to patients with locally advanced cervical cancer to shrink large tumors. It has been reported that this treatment significantly reduces the need for radiotherapy after surgery. The current study aimed to assess the outcome (survival, recurrence, and the need for adjuvant radiotherapy) of locally advanced cervical cancer in patients treated with NACT followed by radical hysterectomy and primary surgery.

Methodology Background: In recent years, before radical hysterectomy, neoadjuvant chemotherapy (NACT) has been administered to patients with locally advanced cervical cancer to shrink large tumors. It has been reported that this treatment significantly reduces the need for radiotherapy after surgery. The current study aimed to assess the outcome (survival, recurrence, and the need for adjuvant radiotherapy) of locally advanced cervical cancer in patients treated with NACT followed by radical hysterectomy and primary surgery.

Results The median for overall survival time in group A and B was 113.65 and 112.88 months, respectively (P=0.970). There was no recurrence among patients with stage IB2 cervical cancer in group B, while the recurrence rate in group A was 19.5% with a median recurrence time of 59.13 months. Lymph node involvement was the only factor that affected patients’ survival. The need for postoperative adjuvant radiotherapy in group B was lower than in group A (P=0.002).

Disclosures Conclusion: NACT before the hysterectomy was found to reduce the need for postoperative radiotherapy in patients with locally advanced cervical cancer according to disease stages. As a direct result, adverse side effects and the recurrence rate were reduced, and the overall survival rate of patients with stage IB2 cervical cancer was increased.

#23 EVALUATION OF THE RELATIONSHIP BETWEEN GENETIC VARIANTS OF FCGR3A AND ABCB1 GENE WITH THE RISK OF CERVICAL CANCER
Majhe Hasanazadeh Mofrad*, Amir Avan, Samira Armapour, Hassan Malakuti, Parvin Malakati, Mashhad University of Medical Sciences, Mashhad, Iran; Faculty of Medicine, Saeed University of Medical Sciences, Saeed, Hungary.

Introduction/Background Cervical cancer (CC) is among the most common diagnosed cancer. Several genetic variants have been identified in ABCB1(RA1128503) region with the risk of developing several cancers. Here we explored the association of RS1128503 genetic variant in patients with cervical cancer.

Methodology Data in computer-based patient dossiers of MUMS were used to identify cervical cancer patients, between 2014 to 2018. DNAs were extracted and genotyping was performed by TaqMan real-time PCR. Logistic regression was used to assess the association between CC risk and genotypes.

Results Our data has been shown that the genotype frequency for rs1128503 of GG, AG and AA were 21.5, 62.7 and 15.6 in patient group while these values were 14.6,52.8 and 14.6 in healthy group, respectively. The distribution of genotype frequencies of polymorphism, was in Hardy-Weinberg equilibrium (HWE) (P>0.05) with MAF of 0.2. Our data showed patients with CC genotype was associated with the increased risk of developing cervical cancer (e.g., recessive genetic
Introduction/Background Targeting programmed death 1 (PD-1) has been approved for relapsed cervical cancer with unsatisfactory clinical efficacy. This study aims to analyze the impact of PI3K pathway activation on tumor immune microenvironment and evaluates the immune sensitization effect by PI3K inhibition in cervical cancer.

Methodology The effect of PIK3CA mutation on PD-L1 expression and CD8+ T cell differentiation was determined in cervical cancer tissues. Luciferase and ChIP-PCR assays were used to determine the transcriptional regulation of PD-L1 by PIK3CA-E545K. The effects of PI3K inhibitor treatment on immune tumor environment in vitro and in vivo were evaluated by RNA sequencing (RNA-seq) and flow cytometry. The efficacy of PI3K inhibitor and anti-PD-1 therapy was assessed in cell-derived xenografts (CDX) and patients-derived xenografts (PDX).

Results PD-L1 overexpression is more frequently observed in elderly women with squamous cervical carcinoma. It predicts longer progression-free survival and overall survival. PIK3CA mutation results in increased mRNA and protein levels of PD-L1, the repression of CD8+ T cell differentiation in cervical cancer. Here, we report a case that continuous pembrolizumab monotherapy treatment induced a complete remission of a recurrent cervical cancer patient with systemic metastasis and PIK3CA-E545K mutation, implying that PIK3CA mutation is potentially a biomarker for pembrolizumab treatment in cervical cancer. Specifically, this mutation promotes the expression of PD-L1 by upregulating the transcription factor IRF1. PI3Kα-specific inhibitors markedly activate immune microenvironment by regulating the PD-L1-related pathways and promotes CD8+ T cell differentiation, proliferation in Caski-CDXs with PIK3CA-E545K mutation. PI3Kα inhibitor significantly enhances the anti-tumor efficacy of PD-1 blockade in CDXs and PDXs.

Conclusion The efficacy of PI3K inhibitors combined with PD-1 antibodies is promising in cervical cancer and warrants additional clinical investigations.

Disclosures No.