EP070/#788 TARGETING TISSUE FACTOR WITH A BISPECIFIC T CELL ENGAGER FOR CERVICAL CANCER

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Introduction To develop an effective and targeted therapeutic approach for solid tumors, including cervical cancer, with improved survival rates compared to standard treatments. Overcoming barriers to immunotherapies in solid tumors, such as limited therapy half-life, tumor penetrance, and precise targeting, is crucial. We aim to explore a durable and controllable local delivery method for therapeutic proteins, which can enhance antitumor efficacy while minimizing non-tumor tissue toxicities.

Methods The Anti-Tissue factor x CD3 TCE is composed of two Tissue factor binding Fabs, which allow for preferential recognition of Tissue factor-high-expressing cancer cells, and one CD3 binding domain that facilitates Tissue factor-mediated CD3 crosslinking and subsequent T cell activation. Flow cytometry was used to study activation and degranulation assays. The immunomodulatory function of this sentence was able to confirm in vitro cell killing analysis through luciferase reporter cell analysis.

Results Our study demonstrated that the functional tissue factor-targeted BiTE protein induced T cell activation, degranulation, and antigen-specific killing of cervical cancer cells. Importantly, this response was specific to tissue factor expression and was not observed in the absence of tissue factor expression.

Conclusion/Implications The findings support the potential of the BiTE protein as a targeted therapeutic approach for cervical cancer, offering a promising strategy to address the challenges associated with solid tumors and improve treatment outcomes.

EP073/#565 SURVIVAL AND PATTERNS OF FAILURE IN SMALL CELL NEUROENDOCRINE CARCINOMA OF CERVIX TREATED WITH DEFINITIVE CHEMORADIOTHERAPY

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Introduction Small cell neuroendocrine carcinoma of cervix (SMNEC) is associated with poor prognosis on account of high incidence of nodal and systemic spread at diagnosis. Trimodality treatment often required if primary treatment was surgery even for early-stage disease. This study aims to investigate the survival and patterns of failure in immuno-histologically confirmed SMNEC treated with chemoradiotherapy-based primary treatment.

Methods Thirty patients with FIGO 2009 1b-3b SMNEC treated consecutively with curative intent between 1997–2017 were identified from a prospectively collected institutional ethics-approved Gynaecology Unit database. Five patients had surgery as primary treatment whilst the remainder 25 who underwent primary radiotherapy were eligible for analysis. All patients had staging Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET). Treatment consisted of external beam radiotherapy and brachytherapy in combination with sequential and/or concurrent platinum-etoposide (EP)-based chemotherapy. Kaplan-Meier method and descriptive statistics were used to estimate survival and patterns of relapse.

Results Twenty-five SMNEC patients followed-up for a median (IQR) of 69.5(20.8–120.0) months. Five-year overall survival was 55.5% (34.1%-72.4%). For node-negative patients (n=14) it was 76.9% (44.2%-91.9%) and for node-positive patients (n=11), it was 31.2% (8.5%-57.8%). Eleven patients (44%) relapsed, all of whom had distant failure. In addition, relapses in the primary(n=3), pelvic(n=6) and para-aortic(n=6) sites concomitantly. Primary and pelvic sites were controlled in 22 (88%) and 19(76%) patients respectively. There were no primary site failures in the node-negative patients up to stage 2a.

Conclusion/Implications Loco-regional control was obtained in 76% patients. However, distant failure rate was 39% and 58% in node-negative and node-positive patients respectively.

EP074/#1447 CLINICALLY EARLY-STAGE CERVICAL CANCER WITH LYMPH NODE METASTASIS: A STUDY AND PROPOSAL FOR REVISING THE 2018 FIGO STAGING SYSTEM

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Introduction To investigate optimal substage of lymph node metastasis in the FIGO staging system for cervical cancer.

Methods Patients with early-stage cervical cancer who were surgically confirmed lymph-node metastases between 2008 and 2015 were analyzed for cancer-specific survival and compared with contemporaneous stage IIB, IIIA and IIIB patients.

Results A total of 2098 patients were included, comprising of 584 cases who were surgically confirmed node-positive with FIGO 2009 stage IA2 to IIA2 (cohort A) and 1514 cases with stage IIB to IIIB (cohort B). The median follow-up time was 62 and 48 months for cohort A and B, respectively. Patients in cohort A had significantly more favored overall survival than stage IIB (P = 0.003), IIIA (P <0.001) and IIIB (P < 0.001) patients. In cohort A, initial FIGO 2009 stage, the number of metastatic nodes and tumor size were independent prognostic factors for overall survival. In cohort B, lymph node metastases significantly decreased survival in patients with stage IIB (P=0.007), but not in patients with stage IIIA (P=0.347) or IIIB (P=0.486) disease. When mergerd node-positive IIB patients into cohort A, the 5-year overall survival were 81.3%, 78.1%, 68.8% and 64.3% for stage IIB (node-