**Abstracts**

### #366 HIGH EXPRESSION OF IGF2BP2 IS THE POOR PROGNOSTIC FACTOR AND ENHANCE THE RESISTANCE FOR PLATINUM REAGENT IN ENDOMETRIAL CANCER

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**Introduction/Background** Endometrial cancer (EC) is the most common gynecological cancer in Japan. The initial treatment of EC is surgery followed by platinum-based chemotherapy, therefore, platinum resistance is major factor of poor prognosis. In this study, we focused on IGF2BP2 which is highly expressed in platinum resistant EC cells and analyze its function.

**Methodology** We performed iTRAQ-based exhaustive and quantitative protein analysis using EC tissues of platinum sensitive and resistant cases, and detected high expression protein (IGF2BP2) among platinum resistant cases. Using 119 EC cases, we also performed survival analysis to reveal the correlation between IGF2BP2 expression levels and overall survival. Moreover, we generated IGF2BP2 knockdown EC cell lines using siRNA, and measured IC50 value of platinum reagent.

**Results** iTRAQ-based protein analysis detected 2299 proteins, and IGF2BP2 was one of the highly expressed proteins in platinum resistant EC cases. High expression of IGF2BP2 was associated with poor prognosis of EC (p<0.05). Knockdown of IGF2BP2 decreased IC50 value of platinum reagent (p<0.05).

**Conclusion** High expression of IGF2BP2 is poor prognostic factor and is related platinum resistance of EC.

**Disclosures** I have no potential conflict of interest to report.

### #376 IMMUNE CHECKPOINT MOLECULES EXPRESSION PREDICTS CLINICAL OUTCOME IN ENDOMETRIAL CANCER

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**Introduction/Background** Endometrial cancer (EC) is one of the most common female cancers with increasing incidence and disease-associated mortality, worldwide. Recent clinical trials proved the rationale of immune checkpoint inhibitors (ICI) therapies in advanced disease.

**Methodology** We evaluated the level of RNA expression of immune checkpoint genes programmed cell death 1 (PD1), its ligand (PDL1) and interferon gamma (IFNG) in 239 EC tissues. We had a control group of 25 non-malignant tissues. We performed association and survival analyses. In a cohort of 81 patients we analyzed them according to the PROMISE molecular classification (POLE-mutated, MMRd, p53abn and NSMP).

**Results** In EC we found significantly higher levels of PD1 (7-fold), PDL1 (3-fold) and IFNG (5-fold) (p<0.001) and these markers were associated with high tumor grade (p =0.007, =0.020, =0.001 respectively). All these immune checkpoint molecules were significantly associated with higher grading of EC. High expression of PD1, PDL1 and IFNG was associated with better recurrence free survival (RFS; HR 0.318, p<0.001; HR 0.295, p<0.001; HR 0.474, p=0.012, respectively) and overall survival (OS; HR 0.563, p=0.003; HR 0.381, p<0.001; HR 0.577, p=0.006; respectively). PD1 was predictive for RFS (HR 0.39, p=0.009) and PD1 for OS (HR 0.55, p=0.037). POLE mutated and MMRd tumors - so called 'immunological hot tumors' - showed the highest expression of PD-1 and IFNG.

**Abstract #376 Figure 1**

Conclusion Immune checkpoint molecules are strongly associated with clinical outcomes in patients with EC and their expression should guide therapeutic approaches.

**Disclosures** No disclosures

### #379 A SAFE ALGORITHM FOR SENTINEL LYMPH NODE MAPPING IN HIGH-RISK ENDOMETRIAL CANCER; THE SENTIREC ENDO STUDY

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**Introduction/Background** Sentinel lymph node (SLN) mapping is suggested to be a safe surgical staging method for women with high-risk (grade 3 or non-endometrioid histology) endometrial cancer (EC). However, approximately 20% of women do not have bilateral mapping, leaving a need for consensus on the choice of surgical algorithm in cases of non-mapping. We aimed to assess the safety of SLN mapping algorithms in women with high-risk EC.

**Methodology** We conducted a national prospective study of SLN mapping in women with high-risk EC from March 2017-January 2023. A power calculation was based on the negative predictive value (NPV) of the SLN algorithm; determining the inclusion of a minimum of 150 women with SLN mapping, pelvic (PLD) and paraaortic (PAA) lymphadenectomy performed. Women underwent SLN mapping, PLD and PAA besides removal of any FDG-PET-positive lymph nodes. Accuracy analyses were applied.