logistic regression analysis showed that age(OR=4.82, 95% CI:1.85~13.62), preoperative tumor area score(OR=6.24,95% CI:1.73~30.4), tumor load score(OR=6.25,95% CI:2.34~18.14), albumin(OR=0.19,95%CI:0.07~0.47) were independent influencing factors of SPC after cytoreductive surgery. The nomogram model was constructed by using the above indexes. The Area Under Curve of the model was 0.913(95%CI:0.866~0.959), the sensitivity was 82.50%,and the specificity was 88.80%.

Conclusion/Implications Age, preoperative tumor area score, tumor load score, albumin are independent factors of SPC after cytoreductive surgery. Nomogram can provide an individualized postoperative SPC risk prediction for cytoreductive surgery patients.

EP146/#636 NOMOGRAM BASED ON HUMAN EPIDIDYMIS PROTEIN 4 PREDICTED CONCURRENT ENDOMETRIAL CANCER FOR PATIENTS DIAGNOSED WITH ATYPICAL ENDOMETRIAL HYPERPLASIA BEFORE SURGERY

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Introduction This study aimed to investigate whether preoperative human epididymis protein 4 (HE4) could predict concurrent endometrial cancer (EC) for patients diagnosed with atypical endometrial hyperplasia before surgery and help to establish a nomogram for better clinical management.

Methods Preoperative-AEH patients who underwent hysterectomy in a tertiary hospital from Jan 2020 to Dec 2022 were retrospectively analyzed. Independent predictive factors determined by multivariate logistic regression model were used to establish nomogram and internal validation was performed by a bootstrap resampling method.

Results A total of 455 preoperative-AEH patients were included, 23.4% of whom had concurrent EC. HE4 level significantly increased in concurrent-EC patients compared with final-diagnosed AEH patients (median 50.5 vs 43.7 pmol/L, p<0.001). ROC curves also showed good predictive potential of HE4 for concurrent EC (AUC = 0.696, 95%CI=0.633–0.760, p<0.001) and concurrent intermediate-high-risk EC (AUC = 0.713, 95%CI=0.563–0.863, p=0.005). Multivariate analysis revealed the independent predictive factors for concurrent EC were HE4 level (OR = 3.84; 95% CI =2.07–7.13), postmenopausal status (OR = 5.25; 95% CI = 2.26–12.22) and BMI (OR = 2.09, 95% CI = 1.12–3.91). The three factors were used to create the nomogram that showed a better goodness-of-fit for predicting concurrent EC. The bootstrap-corrected of concordance index of nomogram was 0.726 (95% CI=0.665–0.784), which was higher than that of each factor alone.

Conclusion/Implications HE4 presented good predictive potential for concurrent EC in preoperative-AEH patients. The nomogram based on HE4, postmenopausal status and BMI might improve this predictive value to stratify high-risk patients for better clinical strategy.

EP149/#421 MMR STATUS ACCORDING TO ETHNICITY IN NEW ENDOMETRIAL CANCER DIAGNOSES WITHIN THE AUCKLAND REGION

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Introduction Endometrial cancer (EC) is the most common gynaecological malignancy in New Zealand. Pacific women have the highest incidence, which is rising in those under 50 years of age. The introduction of immunohistochemistry for EC has important implications for identification of potential Lynch syndrome (LS). Universal testing of EC tumours for a mutation in one of the DNA mismatch repair genes (MMR) was introduced to New Zealand in 2017. The objective of this study was to investigate the rate of MMR deficient and proficient tumours within our population, and whether these rates vary according to ethnicity.

Methods This is a retrospective population-based cohort study of all cases of EC diagnosed between 1st January 2017 until 31 December 2018 within the Auckland region. Incidence of MMR deficient and proficient tumours was assessed for each ethnicity and compared.

Results 409 patients were diagnosed with EC, 81.6% (n=334/409) underwent MMR IHC testing. There were 266 pMMR (79.6%) and 68 dMMR (20.4%) EC tumours. 26.1% of EC in European patients were dMMR, compared with 10% in Māori (p=0.06, RR 0.4 (0.1 – 1.2)), and 11.4% in Pacific (p=0.004 RR 0.5 (0.3 – 0.9)), and 28.3% in Asian (ns). 8 patients (2.3%) were diagnosed with Lynch Syndrome: 4/8 (50%) European, 2/8 (25%) Asian, 1/8 (12.5%) Indian, 1/8 (12.5%) Middle Eastern.

Conclusion/Implications Despite having an increased incidence of EC in New Zealand, Māori and Pacific people have significantly lower rates of MMR deficient tumours than the European population. None of the Pacific or Māori patients had Lynch syndrome.

EP150/#674 THE ROLE OF DDIT4 AS A HYPOXIA-INDUCIBLE GENE AND PROGNOSTIC BIOMARKER IN TYPE II ENDOMETRIAL CANCER

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Introduction Although extensive research has been conducted on endometrial cancer and its hypoxic microenvironment, the role of DDIT4 in endometrial cancer remains unexplored. This study aimed to investigate the significance of DDIT4 as a prognostic biomarker for endometrial cancer using immunohistochemical staining and RNA-sequencing.

Methods Four types of endometrial cancer cells were cultured under normoxia and hypoxia conditions, and RNA-seq was used to examine differentially expressed genes. Immunohistochemical staining for DDIT4 and HIF1A was performed in 86

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patients with type II endometrial cancer treated at our hospital. Statistical methods were used to analyze the correlation between DDIT4 expression and other clinicopathological factors and to assess its prognostic role.

Results The expression analysis of hypoxia-inducible genes using the four types of endometrial cancer cells revealed that DDIT4 was among the 28 genes upregulated in all cells. Our immunohistochemical analysis of DDIT4 expression in endometrial cancer tissues showed that high DDIT4 expression was significantly correlated with a favorable prognosis in both progression-free survival and overall survival according to univariate and multivariate COX regression analyses. In recurrent cases, metastasis only to lymph nodes was significantly related to high DDIT4 expression, whereas metastasis to other parenchymal organs was significantly dominant in patients with low DDIT4 expression.

Conclusion/Implications DDIT4 expression can predict survival and recurrence in type II endometrial cancer, indicating its potential use as a prognostic biomarker.

EP151/#698 CD47 EXPRESSION AND MACROPHAGE INFILTRATION IN TYPE 2 ENDOMETRIAL CANCER

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Introduction This study aimed to investigate the role of CD47 in type 2 endometrial cancer and its relationship with macrophage infiltration and patient prognosis.

Methods A retrospective study was conducted on 75 patients with type 2 endometrial cancer who underwent hysterectomy between 2002 and 2017 at Nagoya University Hospital. Formalin-fixed paraffin-embedded tissue samples were collected and stained for CD47, CD68, and CD163 to assess macrophage infiltration. The correlation between CD47 expression, macrophage infiltration, and patient prognosis was analyzed.

Results CD47 expression was not significantly associated with prognosis in type 2 endometrial cancer. However, higher CD47 expression in tumor cells was significantly associated with fewer CD68 macrophages at the tumor margins. A poorer prognosis was observed in patients with more CD68 macrophages and fewer CD163 macrophages at the tumor margins compared to the other patients. No significant differences were observed in age, stage, or histological type.

Conclusion/Implications CD47 expression may not be a reliable prognostic factor for type 2 endometrial cancer. However, higher CD47 expression in tumor cells was found to be associated with fewer CD68 macrophages at the tumor margins, and a greater number of CD68 macrophages and a lower number of CD163 macrophages at the tumor margins were poor prognostic factors. Further investigation into the association between CD47 expression and macrophage subtypes in endometrial cancer is warranted.

EP152/#356 THE PROGNOSTIC SIGNIFICANCE OF PARA-AORTIC LYMPH NODE METASTASES IN ENDOMETRIAL CANCER: JAPANESE GYNECOLOGIC ONCOLOGY GROUP STUDY JGOG2043 POST HOC ANALYSIS

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Introduction Objective. This study aimed to examine the prognostic impact of para-aortic lymphadenectomy (PALX) in endometrial cancer patients at post-operative risk of recurrence.

Methods JGOG2043 was a clinical trial conducted to assess the efficacy of three distinct chemotherapeutic regimens as adjuvant therapy in endometrial cancer patients with post-operative recurrent risk. A retrospective analysis was performed on patients who underwent pelvic lymphadenectomy (PLX) alone or both PLX and PALX in JGOG2043. Cases with residual disease or missing data were excluded. The number of resected and positive nodes and other clinicopathologic risk factors for survival were retrieved.

Results Four hundred two patients underwent PLX and PALX, while 250 underwent PLX alone. It was difficult to evaluate the survival impact of PALX because the PALX was more frequently applied for higher-risk cases with high-risk histology, more than 1/2 myometrial invasion, and positive pelvic lymph nodes. In the PLX and PALX group, Kaplan-Meier analysis showed that patients with two or more para-aortic lymph node (PAN) metastases exhibited significantly inferior overall survival (OS) compared to those with 0–1 metastasis ($P<0.0001$). Multivariate analysis revealed that two or more metastases in PAN are one of the independent risk factors (HR, 2.52; 95%CI, 1.48–4.27; $P<0.001$), as well as high-risk histology and advanced age for OS.

Conclusion/Implications The therapeutic significance of PAN removal was difficult to assess in the JGOG 2043 cohort, but two or more PAN metastases were identified as a significant poor prognostic factor.

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