

VBT cohort. Isolated pelvic relapse, total pelvic relapse, and distant failure rates were 2.7%, 6.8%, and 9.6% following EBRT, and 11%, 16%, and 6% following VBT, respectively.

**Conclusion** Distant failure rates were lower in the VBT group but isolated and total pelvic failure rates were higher, suggesting that EBRT may be optimal for achieving locoregional control. EBRT is now considered at our institution for HIR endometrioid endometrial cancer in accordance with ESGO/ESTRO/ESP 2020 guidelines, especially in the absence of lymph node staging.

**Disclosures** None

### #333 FREQUENCY AND PATTERN OF RELAPSE FOLLOWING ADJUVANT VAGINAL BRACHYTHERAPY FOR ENDOMETRIAL CANCER BASED ON ESGO/ESTRO/ESP RISK CLASSIFICATION

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**Introduction/Background** The management of endometrial cancer consists of surgery followed by tailored adjuvant therapy but there is a risk of pelvic and/or systemic recurrence. Here, we evaluated the frequency and site of first relapse in patients who received vaginal brachytherapy ( $\pm$  chemotherapy) for FIGO Stage I-II endometrial cancer and stratified retrospectively according to ESGO/ESTRO/ESP 2020 risk classification.

**Methodology** The central radiotherapy prescribing system at our institution was interrogated to identify patients who commenced vaginal brachytherapy, 2100cGy/3#, for endometrial cancer between 1st January 2017 and 31st December 2019. Only those with Stage I-II disease were included. Clinical follow up was undertaken until death or 5 years had elapsed (data lock 31st December 2022). Imaging was performed if recurrence was suspected.

**Results** In total, 258 patients were identified. The median age was 69 years (range 40–90) and median follow up was 33 months (range 0–68). FIGO 2018 Stage distribution: IA (35%); IB (48%); II (17%). Pathology subtype: endometrioid (73%); serous (15%); carcinosarcoma (5%); other (7%). ESGO/ESTRO/ESP risk group distribution: Intermediate (43%); High-intermediate (HIR) (39%); High (18%). Adjuvant chemotherapy was delivered to 8.5% of the cohort. By study end, 50 (19%) patients had relapsed and 43 (16%) had died. Frequency of recurrence per risk group: Intermediate 13/112 (11.6%); HIR 17/100 (17%); High 20/57 (35%). Pattern of relapse was as follows: vagina only - 3 (1.1%); pelvis only - 22 (8.5%); distant only - 6 (2.3%); both pelvis and distant - 22 (8.5%). Frequency of pelvic relapse per risk group was Intermediate 11/112 (9.8%), HIR 16/100 (16%), and High 17/57 (29.8%), respectively. Overall pelvic failure rate was 17%.

**Conclusion** Isolated vaginal relapse rates were very low but pelvic recurrences occurred in up to 15–30% of HIR/High risk patients suggesting that external beam radiotherapy should be considered to optimise loco-regional control in these risk groups.

**Disclosures** None

### #346 AMBIGUOUS HIGH-GRADE ENDOMETRIAL CARCINOMAS – AN ANALYSIS OF CLINICOPATHOLOGIC FACTORS AND PROGNOSTIC OUTCOMES

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**Introduction/Background** High-grade endometrial carcinomas, such as FIGO grade 3 endometrioid carcinoma (EC3) and serous carcinoma (SEC), pose diagnostic challenges due to overlapping and ambiguous features. The significance of clinicopathologic characteristics and prognosis of ambiguous cases remain unclear, adversely affecting the provision of individualised patient counselling and management.

**Methodology** This analysis of 129 consecutive cases of EC3 and SEC at Soroka University Medical Center (2006–2022) compares clinicopathologic characteristics and prognosis in definite and ambiguous EC3 and SEC. All pathological slides were revised and reclassified as definite or ambiguous for EC3 and SEC and prognostic data was extracted retrospectively from medical records. Survival, progression-free survival, and associations between tumour histologic type and clinicopathologic factors were analysed.

**Results** Definite SEC displayed higher mortality compared to definite EC3 (68.2% vs. 41.4%,  $p=0.023$ ) and a non-significant trend towards diminished 5-year survival (48.3% vs 60.1%,  $p=0.096$ ). Ambiguous SEC also showed higher mortality compared to ambiguous EC3 (68.8% vs. 37.5%,  $p=0.020$ ) and a non-significant trend towards reduced 5-year survival (30.5% vs 55.1%,  $p=0.098$ ). Overall, ambiguous cases displayed behavior that fell between the two definite groups, with a mortality rate exceeding that of definite EC3 but favourable to that of definite SEC ( $p=0.024$ ). Other variables showed a similar trend, including lymph node metastases ( $p=0.013$ ) and omental involvement ( $p=0.002$ ). No significant differences were observed in 5-year progression-free survival between all the subpopulations in the study ( $p=0.288$ ).

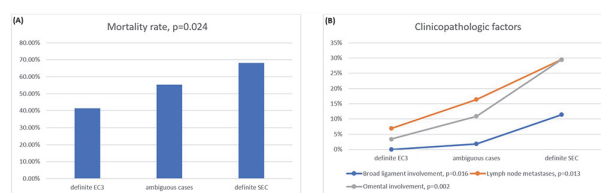


Figure 1: Mortality rate (A) and Clinicopathologic factors (B): Definite FIGO Grade 3 Endometrioid Carcinoma (EC3), Serous Carcinoma (SEC), and Ambiguous Cases of Endometrial Cancer.

**Abstract #346 Figure 1** Mortality rate (A) and Clinicopathologic factors (B): Definite FIGO Grade 3 Endometrioid Carcinoma (EC3), Serous Carcinoma (SEC), and Ambiguous Cases of Endometrial Cancer.

**Conclusion** This study highlights the importance of accurate histological classification in high-grade endometrial carcinoma subtypes. Ambiguous cases constitute a distinct intermediate group with clinicopathologic features more aggressive than definite EC3 but less than definite SEC, potentially influencing counselling and management of these patients. Further

research into the underlying mechanisms and prognostic implications is imperative for developing personalised therapeutic approaches and improving patient outcomes.

**Disclosures** The authors have nothing to declare.

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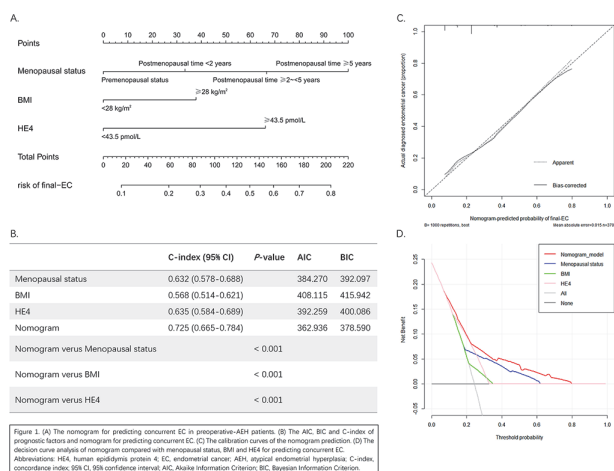
### NOMOGRAM BASED ON HUMAN EPIDIDYMIS PROTEIN 4 PREDICTED CONCURRENT ENDOMETRIAL CANCER FOR PATIENTS DIAGNOSED WITH ATYPICAL ENDOMETRIAL HYPERPLASIA BEFORE SURGERY

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**Introduction/Background** Almost 30% of patients diagnosed with atypical endometrial hyperplasia before surgery (preoperative-AEH) are found to have concurrent endometrial cancer (EC) at definitive hysterectomy, leading to incomplete primary surgery and delayed adjuvant treatment. This study aimed to investigate whether preoperative level of human epididymis protein 4 (HE4) could predict concurrent EC for preoperative-AEH patients and help to establish a nomogram for better clinical management.

**Methodology** 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.



**Abstract #351 Figure 1** (A) The nomogram for predicting concurrent EC in preoperative-AEH patients. (B) The AIC, BIC and C-index of prognostic factors and nomogram for predicting concurrent EC. (C) The calibration curves of the nomogram prediction. (D) The decision curve analysis of nomogram compared with menopausal status, BMI and HE4 for predicting concurrent EC. Abbreviations: HE4, human epididymis protein 4; EC, endometrial cancer; AEH, atypical endometrial hyperplasia; C-index, concordance index; 95% CI, 95% confidence interval; AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion.

**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 curve 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 0.725 (95% CI=0.665–0.784), which was higher than that of each factor alone. The nomogram also displayed good consistency between the probabilities and observed values and potential clinical usefulness.

**Conclusion** HE4 showed 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.

**Disclosures** The authors declared that they had no competing interests.

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### PREDICTIVE VALUE OF HISTOLOGICAL AND IMAGING TESTS IN PRE-OPERATIVE ASSESSMENT OF ENDOMETRIAL CANCER

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**Introduction/Background** Endometrial cancer is one of the most common gynecological malignancies, based on alarm symptoms disease can be diagnosed in early-stage. Preoperative risk assessment can be characterized using results of histology and imaging tests independently of performing at a general hospital or a cancer care center.

**Methodology** The aim of our study was to examine the predictive value of pre-operative tests comparing the results of general hospitals and our university hospital.

Two-hundred and twenty-four patients were diagnosed and operated with early-stage (FIGO I/A, I/B, II) endometrial cancer at University of Debrecen, Department of Obstetrics and Gynecology, after evaluating chest and abdominal CT, pelvic MRI, and histology, between the 1st of July 2019 and the 1st of March 2023.

We characterized the subgroups comparing them with multivariable statistical models. Significant difference was measured with p-value at 0.05 using SPSS v.23.

**Results** Considering radiological stage, a tendency of inverse correlation was observed between the stage of the tumor and the expertise of the radiologist evaluating the imaging test at a general hospital ( $p = 0,07$ ). Those patients with imaging results from a general hospital had higher upstaging on final histology (36%) than at a university hospital (25%), but the difference was not significant ( $p$ -value:0,13).

73% (14/19) of patients diagnosed with endometrial intraepithelial neoplasia or atypical complex hyperplasia preoperatively (curettage or HSC), had early-stage endometrial cancer according to final histology, and 100% (14/14) of these were done in general hospitals.