

**Results** We included 216 women. Of these, 170 women had SLN mapping, PLD and PAA performed, and were included in the final accuracy analysis. 42/170 (24.7%) had nodal metastasis. In case of failed mapping, the algorithm with PLD only demonstrated a sensitivity of 88% (95% CI 74–96) and an NPV of 96% (95% CI 91–99). The sensitivity increased to 93% (81–99) and NPV 98% (95% CI 93–100) if PLD and PAA were performed in case of failed mapping. However, equal safety was demonstrated if PLD was performed in case of failed mapping, in combination with removal of any PET-positive lymph nodes: sensitivity 93% (95% CI 81–99), NPV 98% (95% CI 93–100).

**Conclusion** SLN mapping can be adopted as a safe staging procedure in women with high-risk EC if surgeons strictly adhere to a surgical algorithm in case of failed mapping. This includes either PLD and PAA if pre-operative PET/CT is not performed or PLD and removal of any FDG-positive lymph nodes.

**Disclosures** The authors have no conflicts of interest to declare.

### #397 HLA -DR AS A NEW PREDICTORIAL BIOMARKER OF ENDOMETRIAL CANCER DEVELOPMENT

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**Introduction/Background** HLA expression is associated with inflammation, is found on the of tumor cells and is insufficiently studied in endometrial pathology.

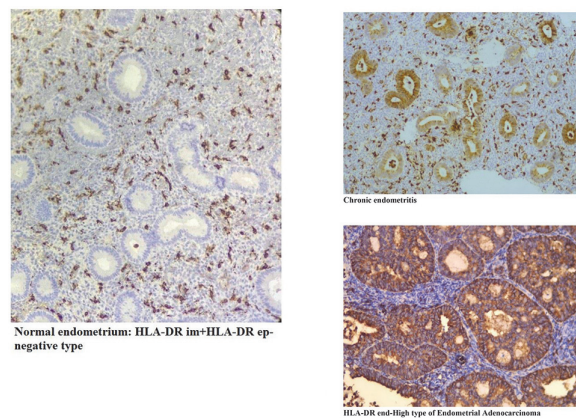
**Purpose** of the study: to determine the features of HLA-DR expression in the endometrium in normal, chronic endometritis, polyps, endometrial cancer.

**Methodology** HLA-DR expression in epithelium and stroma of 227 endometrial samples was assessed by immunohistochemistry: normal endometrium (NE, n=56), chronic endometritis (CE, n=139), endometrial polyps (EP, n=14), endometrioid endometrial adenocarcinoma (EA, n=18). The expression of HLA-DR on immune cells of stroma was designated as HLA-DR-im. The expression of HLA-DR in the epithelium was designated as HLA-DR-ep and divided into High expression (HLA-DRep+High - above 50% of the glands) and low (HLA-DRep-Low - less than 50%).

**Results** HLA-DR-im were observed in the stroma in all groups. HLA-DRep is heterogeneous in the endometrial epithelium. HLA-DRep negative expression was found in 55.6% of cases with AE; in 25.2% of cases with CE; in 27.7% with EP, in 100% of cases with NE ( $p < 0.05$ , Mann-Whitney test). HLA-DRep+High was found in 21.6% for HE; in 28.6% for EP and in 16.7% for AE, it is associated with a high amount of HLA-DRim in the stroma ( $p < 0.05$  Mann Whitney) and significantly frequent detection of HLA-DR+ lymphoid follicles in AE ( $x2$ ,  $p < 0.05$ ). HLA-DRep+Low is set to 51.8% at HE; in 27.8% with PE and in 27.7% of cases with AE and low content of HLA-DRim in stroma ( $p > 0.05$ , Mann-Whitney test)

**Conclusion** Were identified two main types of HLA-DR expression in AE: HLA-DRep- and HLA-DRep+ (High and Low). We hypothesized that the HLA-DR expression of endometrial cancer cells associated with chronic inflammation and

probably reflects a special mechanism of carcinogenesis which requires further complex molecular genetic research. HLA-DR expression in endometrial epithelial cells of chronic endometritis is a high risk factor for cancer.



**Abstract #397 Figure 1** Normal endometrium: HLA-DR im+HLA-DR ep-negative type, Chronic endometritis: HLA-DR ep+ High and HLA-DR ep+High type of Endometrial Adenocarcinoma

**Disclosures** The authors declare no conflict of interest.

### #398 CONCORDANCE BETWEEN INTRACERVICAL AND FUNDAL INJECTIONS FOR SENTINEL NODE MAPPING IN PATIENTS WITH ENDOMETRIAL CANCER? A STUDY USING INTRACERVICAL RADIOTRACER AND FUNDAL BLUE DYE INJECTIONS

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**Introduction/Background** A major controversy in sentinel node (SN) biopsy of endometrial cancer is the injection site of mapping material. We compared lymphatic drainage pathways of the uterine cervix and uterine body in the same patients by head-to-head comparison of intracervical radiotracer and fundal blue dye injections.

**Methodology** All patients with pathologically proven endometrial cancer were included. Each patient received 2 intracervical injections of <sup>99m</sup>Tc-phytate. At the time of laparotomy, the uterus was exposed, and each patient was injected with 2 aliquots of patent blue V (2 mL each) in the subserosal fundal midline locations. The anatomical locations of all hot, blue, or hot/blue SNs were recorded.

**Results** Overall, 45 patients entered the study. At least 1 SN could be identified in 75 of 90 hemipelvs (83.3% overall detection rate, 82.2% for radiotracer [intracervical] alone, and 81.1% for blue dye [fundal] alone). In 71 hemipelvs, SNs were identified with both blue dye (fundal) and radiotracer (intracervical) injections. In 69 of these 71 hemipelvs, at least 1 blue/hot SN could be identified (97.18% concordance rate). In 10 patients, para-aortic SNs were identified. All of these nodes were identified by fundal blue dye injection, and only 2 were hot.

**Conclusion** Our study shows that lymphatic drainage to the pelvic area from the uterine corpus matches the lymphatic pathways from the cervix, and both intracervical and fundal