Conclusions LSR is associated with tumor growth, invasion, metastasis, and poor prognosis in EC. Anti-LSR mAb is a potential therapeutic agent which induces apoptosis and shows a significant antitumor effect in EC.

### EP138/#375 incidence and characteristics of ovarian cancer following endometrial cancer – implications for counseling in the era of conservative management – a SEER analysis

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Objectives Ovarian preservation in young endometrial cancer (EC) patients is controversial and requires further consideration. We aimed to assess the risk for ovarian cancer (OC) following EC in patients who underwent ovarian preservation as part of the initial EC staging and to characterize this group of patients.

Methods With permission of the Surveillance, Epidemiology and End Results (SEER) program of the United States National Cancer Institute, clinicopathological and prognosis information of women diagnosed with EC and following OC were analyzed. Patients were divided into groups: Group A – EC patients that had BSO performed; Group B – EC patients that had ovarian preservation performed. Incidence of OC and survival rates were compared.

Results 383 patients diagnosed with OC following EC were documented. Of them 260 patients had a known BSO performance status. Incidence of OC did not differ between groups (IRR 1.07, CI 0.83–1.39, p=0.59). Survival rates were significantly shorter in ovarian preservation patients compared to patients with BSO performed as part of their EC staging and treatment. However, when analyzing by age, in women diagnosed with EC up to age of 49 years old, no differences in survival rates were found comparing the two groups.

Conclusions Ovarian preservation in EC patients under the age of 49 years may be considered safe, with no impact on OC incidence or survival, benefiting a longer natural hormonal status. In EC patients who went through ovarian preservation a close follow-up for at least 7 years from the EC diagnosis is recommended.

### EP139/#416 outcomes of sentinel lymph node mapping for patients with endometrial carcinoma and cervical or extra-uterine involvement (T2, T3A, or T3B).

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Objectives Investigate the oncologic outcomes of patients with endometrial carcinoma and extra-uterine tumor spread who underwent sentinel lymph node biopsy (SLNBx).

Methods Patients diagnosed between 2012–2015 with endometrial carcinoma, who underwent minimally-invasive hysterectomy and had cervical (T2), serosal/adnexal (T3A), or vaginal/parametrial involvement (T3B) were identified in the National Cancer Database. Patients who underwent SLNBx (with or without LND) or systematic LND alone (defined as at least 20 LNs removed) were identified. Overall survival (OS) was compared with the log-rank test. A Cox model was constructed to control for confounders.

Results A total of 2108 patients were identified; 1090 (51.7%) with cervical, 745 (35.3%) with serosal/adnexal, 246 (11.7%) with parametrial/vaginal involvement and 27 (1.3%) with T3 not specified. A total of 1786 (84.7%) patients had sLND (78.1% with para-aortic LND), while 322 (15.3%) underwent SLNBx. Rate of LN metastases was 35.8% in the sLND and 32.6% in the SLNBx group, p=0.27. Rates of chemotherapy (p=0.36) and radiotherapy (p=0.34) were comparable. There was no OS difference between patients who had SLNBx or sLND (p=0.60; 4-yr OS rates 71.5% and 73.9%) even after controlling for confounders (HR 1.10, 95% CI: 0.84, 1.45). OS was comparable for patients with T2 (p=0.60), T3A (p=0.34), T3B (p=0.38). Patients who had SLNBx alone (n=103), had lower incidence of LN metastases (22.3%, p=0.005), but did not have worse OS compared to those who had sLND (p=0.87; 4-yr OS rate 72.2% and 73.9%).

Conclusions Patients with extra-uterine involvement have a high incidence of LN metastases. SLNBx is associated with similar OS compared to LND.

### EP140/#780 vaginal hysterectomy for the treatment of low-risk endometrial cancer: interim surgical and oncological analysis

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Objectives The purpose of this study was to evaluate the role of vaginal hysterectomy for the treatment of patients with low-risk endometrial cancer.

Methods We retrospectively reviewed the medical records of patients who underwent vaginal hysterectomy for treatment of endometrial cancer or its precursor lesions at a single center in Sao Paulo, Brazil. Medical data obtained included comorbidities, pre and postoperative histological diagnosis, perioperative outcomes, adjuvant treatments and oncological and surgical follow-up.

Results Medical records from 34 consecutive patients who underwent vaginal hysterectomy for endometrial cancer or its precursor lesions between April 2019 and November 2021 were analyzed. Mean age was 61.9 years and body mass index (BMI) was 34; 76.5% of patients were obese (BMI ≥ 30). Medical comorbidities including hypertension (67.7%) and diabetes (35.3%) were commonly noted. Sixty-one percent of patients had two or more comorbidities. Mean operative time and hospital stay were 109 minutes and 1.2 days, respectively. Four (11.8%) patients had conversion of surgical route to laparotomy due to vascular trauma (2 cases) or anatomical difficulties (2 cases). No other major complications were found. Patients undergoing surgical conversion had greater uterine volume (226.8 vs 110.4 ml, p=0.036), longer operative time (116 vs 98 min, p<0.007) and hospital stay (56.8 vs 23.2 hours, p<0.0001). Twenty-eight patients had low-grade endometrioid carcinoma; three (10.7%) of them received adjuvant.
radiotherapy. Mean follow up was 14.6 months. No patient relapsed or died during the study period.

Conclusions Vaginal hysterectomy could be an appropriate and cost-beneficial treatment for well-selected patients with low-risk endometrial cancer.

**EP141/#791 DOES POSITIVE PERITONEAL CYTOLOGY ALTER ONCOLOGIC OUTCOMES OF PATIENTS WITH CLINICAL EARLY STAGE LOW-GRADE ENDOMETRIOID ENDOMETRIAL CARCINOMA?**

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**Objectives** Investigate the prevalence and outcomes of positive peritoneal cytology among patients with clinical early stage low-grade endometrioid endometrial carcinoma (EEC).

**Methods** Patients with no history of another tumor diagnosed between 2010–2015 with clinical early-stage grade 1 or 2 EEC after hysterectomy with lymphadenectomy and known peritoneal cytology, as well as data on depth of myometrial invasion, lymph node and lymph-vascular invasion (LVSI) status were included. Overall survival (OS) was compared with log-rank test following generation of Kaplan-Meier curves. Cox model was constructed to control for confounders.

**Results** 33161 patients met inclusion criteria; 1553 (4.7%) had positive peritoneal cytology. Patients with positive peritoneal cytology were younger (median 61 vs 62 years, p<0.001), more likely to have grade 2 tumors (52.2% vs 42.1%, p<0.001), outer half myometrial invasion (38.4% vs 23.3%, p<0.001), positive lymph nodes (14.6% vs 3.9%) and LVSI (28.7% vs 11.9%, p<0.001). They were more likely to receive radiation therapy (36.4% vs 19.4%,p<0.001), and chemotherapy (22.6% vs 4%, p<0.001). There was no difference in OS between patients with negative and positive peritoneal cytology (p=0.10; 4-year OS rates were 94.5% vs 93.2% respectively). Positive peritoneal cytology was not associated with worse OS when controlling for confounders (HR: 1.06, 95% CI: 0.86, 1.30) neither when excluding lymph node metastases (HR 1.23, 95% CI: 0.99, 1.53). Negative lymph nodes and positive peritoneal cytology (n=1322), radiation therapy (p=0.59) and chemotherapy (p=0.83) were not associated with worse overall survival.

**Conclusion** Positive peritoneal cytology was not associated with worse OS when controlling for confounders.