

EPV133/#555

### MINIMALLY INVASIVE APPROACH IN ENDOMETRIAL CANCER WITH LOWER UTERINE SEGMENT INVOLVEMENT IN $\geq$ STAGE II: IS IT SAFE?

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**Objectives** To compare survival outcomes between women with stages II-IV endometrial carcinoma (EC) with lower uterine segment involvement (LUSI), staged by minimally invasive surgery (MIS) and those staged by laparotomy.

**Methods** A retrospective multi-center cohort study of nine gynecologic-oncology centers. Univariate analysis, Kaplan-Meier survival and Cox proportional hazard models analysis were performed to compare women surgically staged by MIS and those operated by laparotomy in different stages and histology of EC.

**Results** Over a median follow-up period of 3 years (interquartile range, 1.5–6 years) 212 women were included, 68 (32.1%) were surgically staged by MIS. Stages of disease among the study cohort were stages II, III and IV, 32.1%, 51.9%, and 16.0%, respectively. Stage distribution did not vary between MIS and laparotomy groups ( $p=0.144$ ). High-grade histology was less common in MIS group (44.1% vs. 67.4%,  $p<0.001$ ). Adjuvant radiation and chemotherapy rates were comparable. Recurrence (local and distal) rate did not differ between groups (44.1% MIS vs. 31.9% laparotomy,  $p=0.084$ ). Local recurrence rate was higher in MIS group (32.4% vs. 18.1%,  $p=0.023$ ). Overall survival and local recurrence-free survival were similar in both groups (log rank test  $p=0.08$ ,  $p=0.33$ , respectively). In Cox regression model adjusting for age, comorbidities, tumor grade, disease stage and adjuvant therapy, route of surgery (MIS vs. laparotomy) was not associated with overall survival ( $p=0.169$ ) or local recurrence ( $p=0.296$ ).

**Conclusions** In women with stage II-IV EC with LUSI, MIS was associated with higher local recurrence rate, yet overall survival was comparable between patients with MIS and laparotomy, regardless of adjuvant therapy.

EPV134/#557

### THE STUDY OF SOME CLINICO-GENETIC CHARACTERISTICS IN PREGNANT WOMEN WITH UTERINE LEIOMYOMAS

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**Objectives** Uterine leiomyomas (ULs) are common among pregnant women. Besides numerous investigations, the relationship between ULs and adverse pregnancy outcome is not clearly understood until now. Notably, the majority of fibroids do not change their size during pregnancy, but one-third may grow in the first trimester, also may cause multiple complications

**Methods** We evaluated some clinical variables, including the following: the patient age, the size and number of uterine fibroids, serum levels of Anti-TPO, Ft4, TSH, Glucose, Antiphospholipid Antibodies and Ferritin. Also, we investigated the fetus risk for trisomies of 13, 18, and 21 chromosomes. In present study, we included 20 pregnant women (10 with leiomyomas (ages -  $37 \pm 2,334$ ) and 10 without leiomyomas (ages -  $38 \pm 3,44$ )).  $P < 0.05$  was regarded as statistically significant.

**Results** Our study suggested that ULs are associated with hypothyroidism in pregnant women with ULs. Notably, our studies show that all fetuses are non-affected, according to trisomies.

**Conclusions** In conclusion, we have thought that the hypothyroidism may some role in ULs.

EPV135/#596

### CLINICAL AND PATHOLOGICAL FEATURES OF ENDOMETRIAL CANCER PATIENTS WITH DNA MISMATCH REPAIR DEFICIENCY TREATED AT A BRAZILIAN CANCER HOSPITAL

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**Objectives** Identification of DNA mismatch repair (MMR) deficiency has been proposed as a screening strategy for Lynch Syndrome (LS) in endometrial cancer (EC) patients and is useful in predicting tumor sensitivity for immune checkpoint blockade therapies. The proportion of EC with MMR deficiency is reported to be 26%, and around 3% of EC may be attributed to LS. The present study aims to identify clinicopathological features of EC patients tested for tumoral MMR expression in a Brazilian cancer center.

**Methods** 479 patients treated for EC from 2010 through 2020 at Instituto do Câncer do Estado de São Paulo (ICESP) had their tumors analyzed by immunohistochemistry for MLH-1, MSH-2, MSH-6 and PMS-2. Clinical and pathological information from these cases were retrieved using a RED-Cap database and statistics were calculated using the SPSS software.

**Results** From the 479 cases analyzed, 453 resulted in conclusive immunostainings for MMR enzymes: 305 (67%) were MMR proficient (pMMR) and 148 (33%) were MMR deficient (dMMR). Results comparing the two groups are shown in table 1.

**Conclusions** In this population, dMMR EC had a higher prevalence than previously reported. Detection of germline mutation is necessary to investigate whether LS is more prevalent. Clinical aspects did not differ between groups. Lymphovascular space invasion was more frequent in the tumors of the dMMR group, whereas aberrant p53 immunostaining was

**Abstract EPV135/#596 Table 1** Clinicopathological features according to MMR expression

	pMMR	dMMR	p-value
Average age at diagnosis (min-max)	62.5 (31-85)	62.7 (36.2-84.5)	0.976
Average body mass index (min-max)	31.2 (16.4-54.0)	30.9 (19.3-47.6)	0.601
Menopausal status			0.121
Post-menopause	278 (91.1%)	127 (84.6%)	
Pre-menopause	27 (8.9%)	20 (13.6%)	
Ethnicity			0.705
White	217 (76.7%)	110 (79.1%)	
Black	14 (4.9%)	9 (6.5%)	
Brown	43 (15.2%)	16 (11.5%)	
Asian	9 (3.2%)	4 (2.9%)	
Family cancer history			0.188
Negative	187 (71.6%)	82 (65.1%)	
Positive	74 (28.4%)	44 (34.9%)	
Personal cancer history			0.605
Negative	248 (82.9%)	119 (81.0%)	
Positive	51 (17.1%)	28 (19.0%)	
Hypertension			0.985
Absent	119 (39.4%)	57 (39.3%)	
Present	183 (60.6%)	88 (60.7%)	
Diabetes			0.714
Absent	220 (72.8%)	108 (74.5%)	
Present	82 (27.2%)	37 (25.5%)	
Tumor histological type			0.069
Endometrioid	234 (77.7%)	125 (85.0%)	
Non-endometrioid	67 (22.3%)	22 (15.0%)	
Tumor histological grade			0.916
Low grade	211 (69.4%)	102 (68.9%)	
High grade	93 (30.6%)	46 (31.1%)	
Lymphovascular space invasion			0.001
Absent	237 (79.3%)	95 (64.6%)	
Present	62 (20.7%)	52 (35.4%)	
Myometrial tumoral invasion			0.067
<50% of myometrial thickness	167 (54.8%)	67 (45.6%)	
≥50% of myometrial thickness	138 (45.2%)	80 (54.4%)	
RGO staging			0.306
I	184 (60.3%)	84 (56.8%)	
II	30 (9.8%)	9 (6.1%)	
III	69 (22.6%)	43 (29.1%)	
IV	22 (7.2%)	12 (8.1%)	
p53 immunohistochemistry staining			0.001
Wild type	181 (74.8%)	113 (89.7%)	
Aberrant	61 (25.2%)	13 (10.3%)	
Cancer recurrence			0.380
Absent	247 (86.4%)	108 (83.1%)	
Present	39 (13.6%)	22 (16.9%)	
Alive	278 (91.1%)	120 (81.1%)	
Death by cancer	17 (5.6%)	17 (11.5%)	
Death by other causes	10 (3.3%)	8 (5.4%)	
Survival			0.004
Death of unknown cause	0	3 (2.0%)	

pMMR: proficient mismatch repair (enzymes expressed)  
dMMR: deficient mismatch repair (enzymes not expressed)

more prevalent in the pMMR group. Mortality was significantly higher in the dMMR group.

### EPV136/#605 METFORMIN USE AMONG DIABETIC WOMEN AND ENDOMETRIAL CANCER SURVIVAL: AN ISRAELI GYNECOLOGIC ONCOLOGY GROUP STUDY

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**Objectives** Diabetes mellitus is a risk factor for the development of endometrial hyperplasia and endometrial carcinoma (EC). We aimed to evaluate the association between metformin use and oncologic outcome in diabetic women with EC.

**Methods** A retrospective multi-center cohort study of diabetic women with EC treated in nine gynecologic oncology centers between 2000–2014. Univariate, Kaplan-Meier survival and Cox proportional hazard model analyses were performed to compare survival outcomes between women treated with metformin and those who were not.

**Results** A total of 577 diabetic women with EC were included, 330 (57.2%) were treated with metformin and 247 were not. There was no difference between the groups in terms of age, hypertension, statin use, hormonal replacement therapy use, disease stage, grade, lymphovascular space invasion (LVSI) or median follow up time. Women treated with metformin were more likely to have positive abdominal fluid cytology and be operated by minimally invasive route (Odds Ratio [95% Confidence Interval]: 2.8 [1.1–7.2] vs.1.6 [1.1–2.3], respectively). Median follow up was 53 months (interquartile range 20–91). Recurrence rate did not differ between study groups (p=0.267). Cox proportional hazards model adjusted for age, disease stage, grade, LVSI, radiation therapy and chemotherapy, demonstrated comparable progression free survival and overall survival between diabetics who used metformin versus those who did not (p=0.486, p=0.194, respectively).

**Conclusions** Metformin use did not influence prognosis in diabetic women with EC. Large prospective studies to elucidate the association of metformin and oncological outcomes in diabetic subgroups of women with EC are of need.

### EPV137/#607 EARLY SURGICAL OUTCOMES OF ROBOTIC HYSTERECTOMY AND SENTINEL LYMPH NODE BIOPSY USING INDOCYANINE GREEN (ICG)

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**Objectives** Robotic hysterectomy and sentinel lymph node biopsy (SLNB) using Indocyanine green is an effective and safe alternative treatment for patients with endometrial cancer.

**Methods** A single-institutional retrospective study was performed including all patients with intermediate-risk endometrial cancer who underwent robotic hysterectomy plus SLNB using ICG between January 2020 and April 2021. Surgical outcomes of these patients regarding lymphoedema and lymphocele formation were compared in a retrospective manner with outcomes of endometrial cancer patient that underwent abdominal hysterectomy and complete pelvic lymph node dissection.

**Results** In total from January 2020 until April 2021, 15 patients were surgically treated for intermediate endometrial cancer with robotic hysterectomy and SLNB using ICG. Their outcomes were compared with those who underwent abdominal hysterectomy plus pelvic lymph node dissection for endometrial cancer (30 patients). Regarding oncological outcome, 8 out of 15 patients of robotic group were treated for endometrioid endometrial cancer stage IB low grade without LVSI, while the rest of them had endometrioid endometrial cancer stage IA high grade. None of the included patients had metastases to the sentinel lymph node. Regarding the complications, none of the robotic group patients suffered from lymphoedema or lymphocele formation, while in abdominal group 1 out of 30 suffered from lymphoedema and 5 from lymphocele formation.

**Conclusions** Although our small experience, according to our results robotic hysterectomy in combination with SLNB is a feasible treatment that can be used in treatment of patients with intermediate endometrial cancer with same or even better long term results regarding lymphatic drainage.