EPV133/#555 MINIMALLY INVASIVE APPROACH IN ENDOMETRIAL CANCER WITH LOWER UTERINE SEGMENT INVOLVEMENT IN ≥ 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± 2,334) and 10 without leiomyomas (ages - 38 ± 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 REDCap 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. Lymphvascular 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	Post-menopause	278 (91.1%)	127 (84.6%)	0.121
	Pre-menopause	27 (8.9%)	20 (13.6%)	
Ethnicity	White	217 (76.7%)	110 (79.1%)	0.705
	Black	14 (4.9%)	9 (6.5%)	
	Brown	43 (15.2%)	16 (11.5%)	
	Asian	9 (3.2%)	4 (2.9%)	
Family cancer history	Negative	187 (71.6%)	82 (65.1%)	0.188
	Positive	74 (28.4%)	44 (34.9%)	
Personal cancer history	Negative	248 (82.9%)	119 (81.0%)	0.605
	Positive	51 (17.1%)	28 (19.0%)	
Hypertension	Absent	119 (39.4%)	57 (39.3%)	0.985
	Present	183 (60.6%)	88 (60.7%)	
Diabetes	Absent	220 (72.8%)	108 (74.5%)	0.714
	Present	82 (27.2%)	37 (25.5%)	
Tumor histological type	Endometrioid	234 (77.7%)	125 (85.0%)	0.069
	Non-endometrioid	67 (22.3%)	22 (15.0%)	
Tumor histological grade	Low grade	211 (69.4%)	102 (68.9%)	0.916
	High grade	93 (30.6%)	46 (31.1%)	
Lymphvascular space invasion	Absent	237 (79.3%)	95 (64.6%)	0.001
	Present	62 (20.7%)	52 (35.4%)	
Myometrial tumoral invasion	<50% of myometrial thickness	167 (54.8%)	67 (45.6%)	0.067
	≥50% of myometrial thickness	138 (45.2%)	80 (54.4%)	
FIGO staging	I	184 (60.3%)	84 (56.8%)	0.306
	II	30 (9.8%)	9 (6.1%)	
	III	69 (22.6%)	43 (29.1%)	
	IV	22 (7.2%)	12 (8.1%)	
p53 immunohistochemistry staining	Wild type	181 (74.8%)	113 (89.7%)	0.001
	Aberrant	61 (25.2%)	13 (10.3%)	
Cancer recurrence	Absent	247 (86.4%)	108 (83.1%)	0.380
	Present	39 (13.6%)	22 (16.9%)	
Survival	Alive	278 (91.1%)	120 (81.1%)	0.004
	Death by cancer	17 (5.6%)	17 (11.5%)	
	Death by other causes	10 (3.3%)	8 (5.4%)	
	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.