

the sentinel lymph node 6. vNOTES hysterectomy 7. Closure of the incisions

**Results** The approach has performed for three patients with endometrial cancer until today. No complication was detected. All of them discharged postoperative day 1. Blood loss were under 50 ml. One of these patients was at stage IIIC1 treated with chemoradiotherapy, and the other two were at stage IA endometrioid type were under observation. No recurrence was found.

**Conclusion** VNOTES sentinel lymph node dissection may be an alternative approach of treatment for patients with endometrial cancer.

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#### COST-EFFECTIVENESS OF MOLECULAR PROFILING FOR ENDOMETRIAL NEOPLASIA: A SINGLE INSTITUTION EXPERIENCE

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**Introduction/Background** Endometrial cancer (EC) is the most common gynaecologic malignancy in developed countries. Hysterectomy remains the first-line treatment with pelvic lymph node staging being performed routinely. FIGO stage is central to define patients prognosis and their treatment planning. Molecular classification of EC includes 4 subtypes: POLE-ultramutated, mismatch-repair protein deficient (MMRd), p53-mutant and no specific molecular profile. Over the last three years, we have progressively implemented a detailed molecular screening for patients with EC and their risk stratification. Herein, we evaluate the global cost-effectiveness of this approach.

**Methodology** We conducted a monocentric retrospective study of 166 consecutive patients treated for EC at the University Hospital of Liège, between January 2019 and December 2021. Twenty-seven patients were excluded. Of the remaining 139, 87 patients had a complete immunochemistry and molecular biology for p53, MMR and POLE. Fifty were classified as low or intermediate risk, 15 as high-intermediate risk, 19 as high risk.

**Results** For these 87 patients, cost for complete analyses was € 75,820. FIGO stage defined high-risk patients four times more frequently than molecular biology; 8 patients were classified as high-risk due to FIGO stage III alone, 2 patients changed prognostic risk group from high-intermediate to high risk due to p53 mutation alone. However, the adjuvant treatment (external beam radiotherapy) decision was not modified due to the biomolecular profile. One patient with POLE-mutated EC was classified and treated as high-risk because of FIGO stage IIIC1.

**Conclusion** In our experience, molecular analysis changes the prognostic risk group in a limited number of cases and does not impact the final adjuvant treatment prescription. FIGO stage remains of primary importance in our treatment

decisions. Had we performed p53 analysis by immunohistochemistry alone exclusively in low/intermediate-risk patients and microsatellite instability (MSI) testing only if patients were MMRd, € 52,777 would have been saved without theoretical oncological compromise.

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#### LAPAROSCOPIC VERSUS OPEN HYSTERECTOMY IN TYPE I ENDOMETRIAL CANCER, A TERTIARY REFERRAL CENTER EXPERIENCE

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**Introduction/Background** Surgery had been considered the cornerstone in the management of endometrial cancer especially in early stages. The use of minimally invasive surgeries in patients with endometrial cancers has been widely adopted worldwide. In this study, we discuss the outcomes of type I endometrial cancer patients who underwent laparoscopic hysterectomy at our center.

**Methodology** This is a retrospective cohort study on type I endometrial cancer patients who had been surgically treated in Oncology Center Mansoura University (OCMU) in the period from January 2014 till January 2019. The basic epidemiologic and clinicopathologic data were collected, thereafter the patients were arranged into two arms according to the surgical approach used whether open or laparoscopic. The two arms were compared regarding epidemiologic, clinicopathologic criteria, and outcomes (surgical and oncological).

**Results** Patients were categorized into 2 groups; open surgery group (59 patients) and laparoscopy group (60 patients). There was no significant difference between both groups as regards the epidemiologic and clinicopathologic parameters. There was no statistical difference between the 2 groups in the stage of tumor according to FIGO staging. Operative time was significantly longer in the laparoscopy group in comparison to the open surgery group ( $p < 0.0001$ ). No significant difference was found between both groups as regards the type of operation, blood loss. The rate of intraoperative complications was nearly similar in both groups. There was no significant statistical difference between the numbers of lymph node yield in both groups.

**Conclusion** The results in this study support the use of laparoscopy in early stage type I endometrial cancers without compromising the oncological outcomes regarding the disease free and overall survival. We encourage further prospective multicenter randomized trials to consolidate these results.

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#### RISK FACTORS AND PATTERNS OF RECURRENCE IN PATIENTS WITH LOW-RISK ENDOMETRIAL CANCER

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**Introduction/Background** More than half of all endometrial cancers are diagnosed as early stage low-risk, and are treated

with surgery alone. However, 3–10% of them experience relapse. The aim of this study is to evaluate risk factors and patterns of recurrence in patients with low-risk endometrial cancer.

**Abstract 2022-RA-197-ESGO Table 1** Clinical characteristics of patients

Characteristics	No recurrence (n = 369)	Recurrence (n = 22)	P-value
Age, yr	52 (28-81)	55 (33-74)	0.058
BMI, kg/m <sup>2</sup>	25.0 (15.2-64.1)	24.2 (18.9-35.1)	0.607
Menopause	195 (52.8)	18 (81.8)	<b>0.008</b>
Medical comorbidities			
Hypertension	78 (21.1)	3 (13.6)	0.589
Diabetes	40 (10.8)	2 (9.1)	>0.999
Grade			
Grade 1	284 (77.0)	11 (50.0)	<b>0.007</b>
Grade 2	85 (23.0)	11 (50.0)	
Tumor size, cm	1.9 (0-8.0)	2.2 (0-5.3)	0.204
Myometrial invasion depth, cm	0.1 (0-1.6)	0.2 (0-1.0)	0.201
Myometrial invasion ratio, %	4.1 (0-47.6)	7.7 (0-41.7)	0.202
Cytology			
Negative	224 (60.7)	12 (54.4)	0.492
Malignant	8 (2.2)	0 (0)	
Atypical cells	6 (1.6)	1 (4.5)	
Unknown	131 (35.5)	9 (40.9)	
Operation type			
Laparotomy	74 (20.1)	3 (13.6)	0.589
Minimally invasive surgery	295 (79.9)	19 (86.4)	
Laparoscopy	240 (65.0)	13 (59.1)	0.226
Robotic	55 (14.9)	6 (27.3)	
Pelvic lymphadenectomy	304 (82.4)	21 (95.5)	0.146
Para-aortic lymphadenectomy	133 (36.0)	9 (40.9)	0.653
Preoperative CA-125, U/mL	10.8 (0.5-394.5)	13.8 (2.3-59.5)	0.508

**Abstract 2022-RA-197-ESGO Table 2**

Patient no.	Tumor grade	PFS	Stump	Pelvic cavity	Peritoneal cavity	Pelvic nodes	Distant nodes	Lung	Ovary
S150	1	40							+
S080	1	30				+			
S042	1	18				+			
S089	1	9				+			
V099	1	38				+			
S134	1	79						+	
S232	1	18	+						
V072	1	31	+						
S038	1	45		+					
S115	1	22	+						
S230	1	43		+				+	
V143	2	19							+
V067	2	60						+	
V029	2	31		+					
S118	2	4	+					+	
S266	2	3	+						
V121	2	28						+	
S070	2	28		+		+		+	
V129	2	15	+						
S108	2	25					+	+	
S044	2	29		+					
V010	2	8	+			+			

**Methodology** Patients who diagnosed with endometrial cancer after hysterectomy at Seoul St. Mary’s hospital and St. Vincent hospital from 2009 to 2019 were identified. The inclusion criteria are as follows: FIGO stage Ia; endometrioid adenocarcinoma grade 1–2; and no lymphovascular space invasion. Exclusion criteria are those who received postoperative adjuvant treatment. Survival was analyzed using Kaplan-Meier

method, and significance was confirmed using the log-rank test. Multivariate analysis was performed using the Cox proportional hazards regression method.

**Results** A total of 391 patients were included and the median follow-up period was 53 months. Of those, 22 (5.6%) had recurrence, and 5 (1.3%) died of disease. Multivariate analysis identified menopause and tumor grade 2 as independent risk factors for recurrence. Of note, 10 of 62 patients (16.1%) with both risk factors relapsed, suggesting that postoperative adjuvant therapy could be considered for these patients. The most common sites of recurrence are vaginal stump and lung (7/22, 31.8%). In vaginal stump recurrence, the median time to recurrence was shorter than that of other sites (30 vs 15 months,  $p = 0.002$ ), and 71.4% (5/7) were isolated recurrence. Median time to recurrence was 31 and 25 months for G1 and G2, respectively ( $p = 0.130$ ).

**Conclusion** We identified menopause and tumor grade 2 as risk factors for recurrence in early stage low-risk endometrial cancer. Since lung is one of the most common sites of recurrence and usually does not develop symptoms, routine check during follow-up is required.

**2022-RA-200-ESGO CELL CYCLE REGULATORY MARKER AS A POTENTIAL PROGNOSTIC BIOMARKER IN UTERINE CARCINOSARCOMA**

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**Introduction/Background** The relevance of cell cycle regulatory markers with uterine carcinosarcoma was investigated.

**Methodology** The immunohistochemical expression of p16, p53, and cyclin D1 were assessed using tissue microarray of 55 eligible patients.

**Results** p16 and p53 showed a high rate of strong (+3) immune reaction in carcinomatous/sarcomatous components (61.8%/70.9% and 52.7%/56.4%, respectively). Cyclin D1 showed a 14.5%/7.3% of strong immune reaction in the carcinomatous/sarcomatous components. Strong expression of p16 was related to a higher rate of lymph node metastasis and a bigger tumor size. Strong expression of cyclin D1 was related to the lower International Federation of Gynecology and Obstetrics (FIGO) stage. In univariate regression analysis, FIGO stage, lymph node metastasis, p16, and cyclin D1 were prognostic factors for disease-free survival. FIGO stage, p16, p53, and cyclin D1 were prognostic factors for overall survival. In a multivariate regression analysis, FIGO stage and p16 in carcinomatous component were independent factors for both disease-free survival (odds ratio [OR], 95% confidence interval [CI]; 3.5 [1.2–10.3] and 3.5 [1.3–9.9];  $P = 0.026$  and  $0.016$ ) and overall survival (OR, 95% CI; 2.3 [1.0–5.1] and 2.9 [1.1–7.8];  $P = 0.042$  and  $0.037$ ).

**Conclusion** p16 was a predictor of lymph node metastasis, tumor size, and prognostic outcome in uterine carcinosarcoma.