

Abstract 2022-RA-580-ESGO Figure 1

**Conclusion** This study indicates that DNA methylation analysis in urine samples, self-collected cervicovaginal swabs, and clinician-taken cervical scrapes allows endometrial cancer detection with high accuracy. Our results demonstrate the potential of methylation testing in self-collected material as a novel diagnostic strategy to detect endometrial cancer.

2022-RA-585-ESGO

**COME BACK TO THE FUTURE: THE IMPACT OF ESTROGEN RECEPTOR PROFILE IN THE ERA OF MOLECULAR ENDOMETRIAL CANCER CLASSIFICATION**

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**Introduction/Background** The estrogens receptor (ER) expression in endometrial cancer (EC) is known to be associated with prognosis. However, its role was not included in the latest molecular risk classification system. The aim of this study is to assess the impact of ER profile on oncological outcomes in the new EC risk classification.

**Methodology** Retrospective IHC analyses were conducted in a large series of ECs, studying the presence/absence of hormone receptors and other molecular (i.e p53 and mismatch mutational status), histopathological and clinical outcome. The ER status was correlated with molecular, histological, clinical and prognostic data.

was linked with an unfavorable pathologic-clinical profile (grading, histotype, LVSI, stages, etc) and with high and advanced risk class (64.5vs 27%) (p<0.05). Molecular analysis in ER-negative compared to ER-positive showed greater p53-mutation rate (39% vs 10%), similar MMR-deficiency (20% vs 23.5%), fewer MMR-stability (38% vs 65%) (table1). Noteworthy, simple regression demonstrated that ER-negativity was related to worse OS and DFS, regardless of p53 status; whereas for ER-positive, the prognosis was strongly associated to molecular status (p<0.05). When associated to risk classes, ER-negative EC patients had the worst outcomes compared to the ER-positive counterparts, especially for intermediate, high-intermediate and high-risk classes (p<0.05) (figure1).

Abstract 2022-RA-585-ESGO Table 1

Characteristic	ER0/1+ (N=211)	ER2+/3+ (N=680)	Total (N=891)	p value
Age	Mean (SD) 63.621 (10.825)	62.776 (11.229)	62.976 (11.134)	0.336
	Range 35.000 - 87.000	25.000 - 89.000	25.000 - 89.000	
BMI	Mean (SD) 28.747 (7.832)	30.242 (8.263)	29.888 (8.183)	0.020
	Range 17.200 - 75.300	16.000 - 121.000	16.000 - 121.000	
Stage_def				< 0.001
	IA 77 (36.5%)	356 (52.4%)	433 (48.6%)	
	IB 48 (22.7%)	148 (21.8%)	196 (22.0%)	
	II 14 (6.6%)	46 (6.8%)	60 (6.7%)	
	IIIA 3 (1.4%)	17 (2.5%)	20 (2.2%)	
	IIIB 4 (1.9%)	9 (1.3%)	13 (1.5%)	
	IIIC1 29 (13.7%)	64 (9.4%)	93 (10.4%)	
	IIIC2 7 (3.3%)	14 (2.1%)	21 (2.4%)	
	IVA 2 (0.9%)	4 (0.6%)	6 (0.7%)	
	IVB 27 (12.8%)	22 (3.2%)	49 (5.5%)	
Risk_class_2020				< 0.001
	low 33 (15.6%)	299 (44.0%)	332 (37.3%)	
	intermediate 20 (9.5%)	93 (13.7%)	113 (12.7%)	
	high 22 (10.4%)	103 (15.1%)	125 (14.0%)	
	advanced/metastatic 109 (51.7%)	163 (24.0%)	272 (30.5%)	
	27 (12.8%)	22 (3.2%)	49 (5.5%)	
Grading				< 0.001
	G1-2 71 (33.6%)	526 (77.4%)	597 (67.0%)	
	G3 140 (66.4%)	154 (22.6%)	294 (33.0%)	
Histotype				< 0.001
	Endometrioid 104 (49.3%)	593 (87.2%)	697 (78.2%)	
	Serous 50 (23.7%)	49 (7.2%)	99 (11.1%)	
	Clear cell 5 (2.4%)	0 (0.0%)	5 (0.6%)	
	Carcinosarcoma 14 (6.6%)	7 (1.0%)	21 (2.4%)	
	Undifferentiated 11 (5.2%)	3 (0.4%)	14 (1.6%)	
	Mixed 27 (12.8%)	28 (4.1%)	55 (6.2%)	
LVSI				< 0.001
	Miss 99 (47.1%)	452 (66.6%)	551 (62.0%)	
	negative 111 (52.9%)	227 (33.4%)	238 (27.0%)	
Myometrial_invasion				0.002
	Miss 2 14 (6.7%)	1 48 (7.1%)	3 62 (7.0%)	
	no 5 (2.4%)	0 (0.0%)	5 (0.6%)	
	< 50% 107 (51.2%)	257 (37.8%)	364 (41.0%)	
	> 50% 107 (51.2%)	257 (37.8%)	364 (41.0%)	
Dim_class				0.081
	not applicable 0 (0.0%)	4 (0.6%)	4 (0.4%)	
	≤ 20 mm 34 (16.1%)	151 (22.2%)	185 (20.8%)	
	> 20 mm 177 (83.9%)	525 (77.2%)	702 (78.8%)	
Dim_mm				< 0.001
	Miss 1	4	5	
	Mean (SD) 44.167 (27.422)	34.812 (18.865)	37.029 (21.561)	
	Range 3.000 - 150.000	1.000 - 150.000	1.000 - 150.000	
pN				0.001
	negative 171 (81.0%)	609 (89.6%)	780 (87.5%)	
	positive 40 (19.0%)	71 (10.4%)	111 (12.5%)	
CHT				< 0.001
	no 82 (38.9%)	474 (69.7%)	556 (62.4%)	
	yes 129 (61.1%)	206 (30.3%)	335 (37.6%)	
Adv_RT				< 0.001
	no 105 (49.8%)	456 (67.1%)	561 (63.0%)	
	yes 106 (50.2%)	224 (32.9%)	330 (37.0%)	
MMR_p53				< 0.001
	MMRs 81 (38.4%)	441 (64.9%)	522 (58.6%)	
	MMRd 43 (20.4%)	160 (23.5%)	203 (22.8%)	
	p53mut 82 (38.9%)	69 (10.1%)	151 (16.9%)	

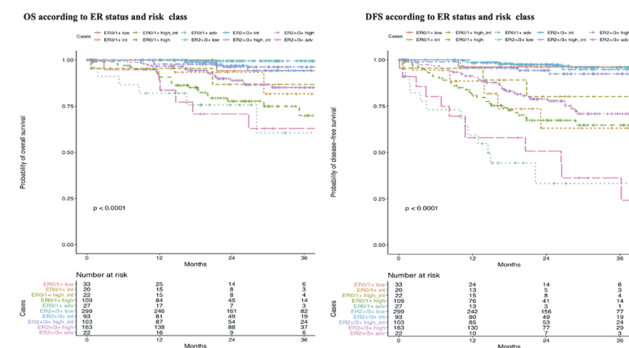
**Conclusion** We demonstrated that the ER status has a significant impact on oncological outcomes, regardless of risk class and p53/MMR status. On these bases, we advise to include ER assessment in featured EC risk classification system.

2022-RA-612-ESGO

**IMPROVING ENDOMETRIAL CANCER ASSESSMENT BY COMBINING THE NEW TECHNIQUE OF GENOMIC PROFILING WITH SURGICAL EXTRA UTERINE DISEASE ASSESSMENT. AN INTRODUCTION TO EUGENIE**

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Abstract 2022-RA-585-ESGO Figure 1

**Results** 891 EC-patients were included in the study (211 ER-negative and 680 ER-positive). The ER-negative phenotype

**Introduction/Background** Endometrial cancer (EC) is the most common gynaecological malignancy in developed countries. Currently, the extent of the surgical staging depends on a pre-operative risk assessment, but it is relatively inaccurate. This leads to an incorrect risk estimation of metastases at the diagnosis. Furthermore, the relation between the four molecular subgroups and the risk of tumour spread beyond the uterus has insufficiently been investigated so far. Despite that, the new classification is being quickly incorporated, and the use of staging surgery to assess the presence of metastases dissuaded. Indeed, the disease stage has until now been the most important predictor of prognosis. We aim to improve the current risk classification system by integrating disease stage and molecular classification allowing an accurate estimation of the risk and type of metastases and the risk of recurrence in EC patients.

**Methodology** EUGENIE is a prospective multicentre study including 1,000 EC patients. Patients will be included during the first four years and the follow-up will be at least two years. Patients with all histotypes EC, FIGO stage I-IV, will be enrolled. A surgical staging procedure will be performed in all patients, including assessment of lymph nodes (sentinel or lymphadenectomy), peritoneal biopsies, and omentectomy/omental biopsies.

**Results** The protocol is submitted to the Ethical Committee at the UZ Leuven, Belgium. The study will start in UZ Leuven Gasthuisberg Campus and Fondazione Policlinico Gemelli IRCCS in Rome and it will last 6 years. Other centres are invited to participate and join EUGENIE.

**Conclusion** EUGENIE will generate the largest dataset about the presence of metastatic disease in each molecular subtype of EC. The results will help to determine the primary surgical approach and the need for adjuvant treatment. This will lead to a reduction of over and undertreatment and more efficient management of EC in the molecular era.

2022-VA-628-ESGO

#### INFERIOR VENA CAVA INJURY DURING LAPAROSCOPIC PARA-AORTIC LYMPHADENECTOMY

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**Introduction/Background** Laparoscopic para-aortic lymphadenectomy is a challenging surgical procedure for Gynaecological Oncologists and require advanced laparoscopic skills and good knowledge of the retroperitoneal anatomy and landmarks.

Our aim is to present our experience in managing a major vascular injury complication during advanced laparoscopic surgery.

**Methodology** The indication for the laparoscopic para-aortic lymphadenectomy was endometrioid endometrial cancer grade 3 stage 1B (FIGO) in a 65-year-old patient with BMI of 36. Not proper identification of a perforating vein between during dissection of precaval nodes at the level above the bifurcation of the inferior vena cava (IVC) resulted in tearing the IVC and ongoing significant hemorrhage.

**Results** Amongst different available surgical or more conservative techniques on the management of a laparoscopic

hemorrhagic complication we decided to use a hemostatic agent called Floseal, which is a mixture of flowable gelatin matrix and human-derived thrombin component. Hemostasis achieved efficiently after the application of the hemostatic agent avoiding the use of surgical techniques which are more risky for further extension of the IVC tearing.

**Conclusion** Prevention of complications during a complex surgical complication is only the one 'side of the coin'. Surgeons should be well experienced and ready not only to avoid but also to deal with severe perioperative complications in order to offer high level quality of care on their patients. In order to manage these stressful events requirements such as teamwork, experience, training and well organized resourced should be fulfilled.

2022-RA-639-ESGO

#### IMPLEMENTATION OF THE NEW SURGICAL MANAGEMENT IN ENDOMETRIAL CANCER IN ACCORDANCE TO ESGO/ESTRO/ESP GUIDELINES FOR THE MANAGEMENT OF PATIENTS WITH ENDOMETRIAL CARCINOMA BY TRAINEES IN GYNAECOLOGICAL ONCOLOGY

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**Introduction/Background** The ESGO/ESTRO/ESP guidelines for the management of patients with endometrial carcinoma published in December 2020 recommend a sentinel node biopsy instead of systematic lymphadenectomy in patients with low-risk/intermediate-risk disease and may be considered in stage I/II with high-intermediate-risk/high-risk. This revolutionary minimally invasive approach let the patients avoid the intra- and postoperative complications but also brings the opportunity for trainees to obtain an excellence in procedure in the relatively brief time.

**Methodology** In a time of 8 months (October 2021-May 2022) 31 patients with diagnosed endometrial cancer stages IA and IB with low or intermediate risk underwent the procedure of total hysterectomy with bilateral salpingo-oophorectomy and sentinel node biopsy in Oncology Centre in Opole done by 4 surgeons: 2 specialists and 2 trainees. All of the surgeries were performed in accordance to the state-of-art principles which consisted of ICG mapping, ultrastaging of the lymph nodes and gynaecological oncology specialist supervision.

**Results** 78% of the procedures were performed by 2 trainees as a first surgeon and 22% by 2 specialists. All of the operations were minimally invasive (laparoscopy). In 28 cases (90,4%) at least one lymph node was detected and the median number of SLN was 3. In 3 cases (9,6%) the lymph nodes were not identified in the dissected tissue – two of them conducted by specialists and one by a trainee. Unsuccessful mapping of nodes appeared only twice in the group (6,45%) and in these cases a systematic pelvic lymphadenectomy was accomplished. Metastatic nodes were found in 4 cases (12,9%).

**Conclusion** The results of the observations indicate that the novel surgical approach in endometrial cancer may be effectively implemented just in months and conducted by supervised trainees as we obtained satisfactory outcome compared to bigger studies.