

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.

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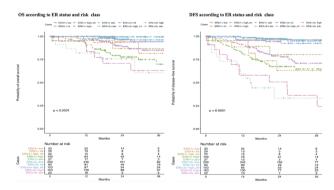
COME BACK TO THE FUTURE: THE IMPACT OF ESTROGEN RECEPTOR PROFILE IN THE ERA OF MOLECULAR ENDOMETRIAL CANCER CLASSIFICATION

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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), histopatological and clinical outcome. The ER status was correlated with molecular, histological, clinical and prognostic data.



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

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).

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	20 242 (2.022)	20.242 (0.262)	20.000.00.102	0.020
Mean (SD) Range	28.747 (7.832) 17.200 - 75.300	30.242 (8.263) 16.000 - 121.000	29.888 (8.183) 16.000 - 121.000	
Stage_def				< 0.001
IA IB	77 (36.5%) 48 (22.7%)	356 (52.4%) 148 (21.8%)	433 (48.6%) 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 IVA	7 (3.3%) 2 (0.9%)	14 (2.1%) 4 (0.6%)	21 (2.4%) 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 high intermediate	20 (9.5%) 22 (10.4%)	93 (13.7%) 103 (15.1%)	113 (12.7%) 125 (14.0%)	
high	109 (51.7%)	163 (24.0%)	272 (30.5%)	
advanced/metastatic	27 (12.8%)	22 (3.2%)	49 (5.5%)	
Grading				< 0.001
G1-2 G3	71 (33.6%) 140 (66.4%)	526 (77.4%) 154 (22.6%)	597 (67.0%) 294 (33.0%)	
Histotype	140 (66.4%)	134 (22.6%)	294 (33.0%)	< 0.001
Endometrioid	104 (49.3%)	593 (87.2%)	697 (78.2%)	- 0.001
Scrous	50 (23.7%)	49 (7.2%)	99 (11.1%)	
Clear cell Carcinosarcoma	5 (2.4%) 14 (6.6%)	0 (0.0%)	5 (0.6%) 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	1	1	2	
negative positive	99 (47.1%) 111 (52.9%)	452 (66.6%) 227 (33.4%)	551 (62.0%) 338 (38.0%)	
Myometrial invasion	111 (32.576)	227 (33.476)	338 (38.078)	0.002
Miss	2	1	3	
no	14 (6.7%)	48 (7.1%)	62 (7.0%)	
≤ 50% > 50%	88 (42.1%) 107 (51.2%)	374 (55.1%) 257 (37.8%)	462 (52.0%) 364 (41.0%)	
Dim class	107 (31.270)	237 (37.370)	304 (41.070)	0.081
not applicable	0 (0.0%)	4 (0.6%)	4 (0.4%)	
≤ 20 mm > 20 mm	34 (16.1%)	151 (22.2%)	185 (20.8%)	
> 20 mm Dim mm	177 (83.9%)	525 (77.2%)	702 (78.8%)	< 0.001
Miss	1	4	5	- 0.001
Mean (SD)	44.167 (27.422)	34.812 (18.865)	37.029 (21.561)	
Range	3.000 - 190.000	1.000 - 140.000	1.000 - 190.000	
pN negative	171 (81.0%)	609 (89.6%)	780 (87.5%)	0.001
positive	40 (19.0%)	71 (10.4%)	111 (12.5%)	
CHT				< 0.001
no	82 (38.9%)	474 (69.7%)	556 (62.4%)	
Adv RT	129 (61.1%)	206 (30.3%)	335 (37.6%)	< 0.001
no no	105 (49.8%)	456 (67.1%)	561 (63.0%)	~ 0.001
yes	106 (50.2%)	224 (32.9%)	330 (37.0%)	
MMR_p53				< 0.001
MMRs MMRd	81 (38.4%) 43 (20.4%)	441 (64.9%) 160 (23.5%)	522 (58.6%) 203 (22.8%)	
p53mut	43 (20.4%) 82 (38.9%)	69 (10.1%)	203 (22.8%) 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.

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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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