

clinical features into risk-profiles according to the ESGO-ESTRO-ESP guidelines. DEP was detectable in 24 (75%) of urine samples, DBP was detectable in 31 (97%) samples. Median levels of DEP in urine were 22.8 µg/L (range 4 – 54 µg/L) and 74.9 µg/L (range 23 – 166 µg/L) for DBP. Clinical risk assessment was significantly correlated with DEP $r=9.475$; $p<.050$, but not with DBP expression levels $r=5.573$; $p>.233$.

Conclusion Exposure to higher concentrations of DEP may be associated with increased biological aggressiveness of EC. If these findings are confirmed in other EC populations, this could influence counselling and management of women with EC.

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THE IMPACT OF COMBINATION OF SYSTEMIC INFLAMMATORY AND MOLECULAR MARKERS ON SURVIVAL OF APPARENT EARLY-STAGE ENDOMETRIAL CANCER

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Introduction/Background The primary endpoint of the present study was to assess the role of systemic inflammatory and molecular markers on DFS in patients with apparent early-stage endometrial cancer.

Methodology Retrospective, single-center, observational study. Patients with apparent endometrial cancer undergoing primary surgery between 06/2013–06/2019 were included. Data on systemic inflammatory markers were calculated on complete blood count performed at time of anesthetic assessment (1–30-days before surgery). Information about molecular markers P53, MLH1, MSH2, MSH6, PMS2, ER, PR and MMR stability was retrieved by immunohistochemistry (IHC) analysis of tumor tissue on uterus histology. Analyzed inflammatory markers included neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), eosinophil-lymphocyte ratio (ELR), monocyte-lymphocyte ratio (MLR), systemic immune inflammation index (SII), (eosinophil x neutrophil)/lymphocyte (ENL) and fibrinogen-albumin ratio (FAR). The ROC curve was used to determine the optimal cut-off value of different baseline inflammatory biomarkers for the DFS analysis.

Results Characteristics of 495 included patients are showed in table 1. Univariate analysis showed that following inflammatory markers values were significantly associated with worse DFS: $NLR \geq 3.5$ (HR:2.424;95%CI:1.512–3.886; $p<0.001$), $SII \geq 1050$ (HR:2.738;95%CI:1.665–4.502; $p<0.001$), $PLR \geq 250$ (HR:2.747;95%CI:1.453–5.194; $p=0.002$), $FAR \geq 10$ (HR:1.841;95%CI:1.138–2.978; $p=0.013$), $MLR \geq 0.3$ (HR:2.288;95%CI:1.409–3.716; $p<0.001$). When stratifying according to molecular risk-groups from ESGO-ESTRO-ESP-2021 guidelines, we found that in MMRd patients, patients with $SII < 1050$ had better 3-year DFS than patients with $SII \geq 1050$ (91.0% versus 60.0%; $p=0.002$). Similarly, we found that in MMRd patients and p53 mutated patients, patients with $PLR < 250$ had better 3-year DFS than those with $PLR \geq 250$ (90.1% versus 62.5%,

$p=0.020$ and 74.9% versus 33.3%, $p=0.045$, respectively). Multivariable analysis including molecular and systemic inflammatory markers showed that $PLR \geq 250$ was independently associated with increased risk of recurrence.

Abstract 2022-RA-1335-ESGO Table 1

Characteristic	N=495, (% range)
Age	63 (26-88)
BMI, median	28.5 (16.7-64.1)
Histology	
- Endometrioid	404 (81.6)
- Serous	35 (7.1)
- Clear cell	2 (0.4)
- Others	54 (10.9)
Grade	
- 1	4 (9.9)
- 2	291 (58.8)
- 3	148 (29.9)
- Unknown	7 (1.4)
FIGO stage	
- IA	252 (50.9)
- IB	87 (17.6)
- II	38 (7.7)
- IIIA	13 (2.6)
- IIIB	7 (1.4)
- IIIC1	56 (11.3)
- IIIC2	13 (2.6)
- IVA	7 (1.4)
- IVB	22 (4.4)
LVSI	
- Negative	299 (60.4)
- Positive	190 (38.4)
- Unknown	6 (1.2)
IHC molecular analysis available	
- No	180 (36.4%)
- Yes	315 (63.6%)

Conclusion SII and PLR were the systemic inflammatory markers with major impact on recurrence risk. SII and PLR might help in further stratifying risk of recurrence when adopting the molecular risk-groups from ESGO-ESTRO-ESP-2021 guidelines. $PLR \geq 250$ surpassed ER, PR and p53 in conferring risk of recurrence.

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ENDOMETRIAL CANCER PATIENTS WITH AN OVEREXPRESSION OF THE ORPHAN NUCLEAR RECEPTOR NR2F6 SHOW AN IMPROVED SURVIVAL

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Introduction/Background NR2F6 (nuclear receptor subfamily 2 group F member 6, also called Ear-2) is known to be an orphan nuclear receptor being an intracellular immune checkpoint in effector T cells. It might play an essential role for tumor development and growth. Therefore, the prognostic impact of NR2F6 in endometrial cancer is evaluated in this study.

Methodology Expression analysis of NR2F6 in 142 endometrial cancer patients was performed by immunohistochemistry. Staining intensity of tumor cells was computerized assessed semi-quantitatively, and results were correlated with clinicopathological characteristics and survival.

Results 46 of 117 evaluable samples (39.3%) showed an overexpression of NR2F6, leading to an improvement of the overall (OS) and disease-free survival (DFS). In NR2F6 positive patients, the mean OS was 156.6 months (95% confidence interval (CI): 142.4 – 170.8) compared to 105.8 months in NR2F6 negative patients (95% CI: 85.6 – 125.9; $p = 0.025$). The disease-free survival differed by 58.4 months (156 months (95% CI: 142.2 – 169.9) vs. 97.6 months (95% CI: 74.7 – 120.6), $p = 0.004$). Furthermore, we found significant associations between NR2F6 positivity, MMR status, and PD1 status. A multivariate analysis suggests NR2F6 to be an independent factor influencing the disease-free survival ($p = 0.037$).

Conclusion This is the first report on the prognostic impact of NR2F6 in endometrial cancer patients. We could demonstrate that there is a significant better progression-free and overall survival for patients with overexpression of NR2F6 in patients with endometrial cancer. Further studies are required to validate its prognostic impact.

2022-RA-1345-ESGO WHEN ENDOMETRIAL CANCER SPARES NO AGE

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Introduction/Background Endometrial cancer (EC) is a postmenopausal disease and occurs in only 4% of women 40 years and below.¹ Patients in this age group present with a low grade EC with excellent prognosis.² Because of this age group, fertility sparing approach is a reasonable option for selected patients and must be tackled. This paper aims to share this unusual case in the medical field with the hope of being able to contribute with the establishment of a consensus on the management of EC in the young, that is fertility preserving.

Methodology KE is a 36 year old Gravida 0 with primary infertility, complaining of menorrhagia. She has a body mass index of 31.9 kg/m². Ultrasound was done which showed thickened endometrium, hyperechoic with cystic spaces measuring 1.8 cm. Sampling was done which showed Endometrioid Adenocarcinoma. Abdominal CT scan showed a non enhancing unilocular, cystic mass measuring 3.5 x 2.5 cm, on the left ovary. No discrete uterine nor abdominopelvic mass, nor lymphadenopathy. She underwent Exploratory Laparotomy, Extrafascial Hysterectomy, with evaluation of lymph nodes. Her histopathology results confirmed diagnosis.

Results EC develops due to unopposed estrogen exposure. Risk factors include obesity, nulliparity, early menarche, polycystic ovarian syndrome, and sequential use of contraception.⁴ The standard treatment for EC is surgery. However, in some parts of the world, medical treatment is being applied with the most common regimen consisting of medroxyprogesterone acetate at 50 to 600 mg daily and megestrol acetate at 160 mg daily.¹ Hormonal treatment has been shown to be successful in patients with a FIGO 1A staging.⁵ Factors to consider

when doing conservative management include grade of disease, depth of myometrial invasion, presence of adnexal masses, and their future child bearing plans.³

Conclusion A consensus on a fertility sparing treatment should be made for young patients with EC.

2022-RA-1346-ESGO PREDICTIVE FACTORS FOR ADNEXAL INVOLVEMENT IN ENDOMETRIAL CANCER, WITH A FOCUS ON FIGO STAGE IIIA, AN UNCOMMON ENTITY

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Introduction/Background To assess the incidence of endometrial cancer (EC) FIGO stage IIIA, and evaluate predictors of adnexal involvement, and its role as prognostic factor of recurrence and death in EC.

Methodology Records of all consecutive EC patients who underwent primary surgery between January 2005 and November 2021 at Fondazione Policlinico A. Gemelli, Rome, were retrospectively reviewed. Potential predictive factors of adnexal involvement were assessed by logistic regression models. Overall survival (OS) and recurrence-free survival (RFS) were estimated using Kaplan-Meier method and potential independent prognostic factors assessed by Cox proportional-hazard models.

Abstract 2022-RA-1346-ESGO Table 1

	Univariable Analysis		Multivariable Analysis	
	Yes (n=207)	No (n=1872)	OR (95% CI); p	OR (95% CI); p
Age at diagnosis	63.0 (54.0-70.5)	62.0 (55.0-70.0)	1.00 (0.99; 1.01); 0.772	
BMI	26.7 (22.7-31.2)	28.5 (24.2-33.7)	0.96 (0.94; 0.98); <0.001	0.96 (0.94; 0.99); <0.004
Menopause	168 (81.2)	1565 (83.6)	0.85 (0.58; 1.22); 0.371	
Expressed Molecular Markers				
Beta catenin	14 (6.8)	220 (11.8)	0.54 (0.31; 0.95); 0.034	0.41 (0.21; 0.79); 0.008
ER	140 (67.6)	1115 (59.6)	1.42 (1.04; 1.92); 0.025	10.05 (1.45; 69.57); 0.019
PR	138 (66.7)	1115 (59.6)	1.36 (1.00; 1.84); 0.048	0.16 (0.02; 1.14); 0.067
IMMR phenotype*	115 (55.6)	908 (48.5)	1.33 (0.99; 1.77); 0.053	1.96 (1.26; 3.08); 0.004
FS3	91 (44.0)	225 (12.0)	5.74 (4.22; 7.81); <0.001	1.73 (0.95; 3.13); 0.071
Histology				
Endometrioid histotype	107 (51.7)	1531 (81.8)	0.24 (0.18; 0.32); <0.001	0.55 (0.36; 1.01); 0.052
FIGO Grade				
G1	1 (0.5)	313 (17.3)	0.01 (0.00; 0.08); <0.001	0.07 (0.01; 0.53); 0.010
G2	65 (31.4)	1030 (56.9)	0.21 (0.15; 0.28); <0.001	0.65 (0.42; 1.02); 0.059
G3 (Ref.)	141 (68.1)	466 (25.8)		
Tumour size >20mm	186 (89.9)	1294 (69.1)	3.96 (2.46; 6.28); <0.001	1.58 (0.92; 2.72); 0.093
Tumour size, mm	80.0 (36.2-20.0)	35.0 (23.0-40.0)	1.03 (1.05; 1.04); <0.001	
Myometrial Infiltration >50%	146 (70.5)	636 (34.0)	4.65 (3.40; 6.37); <0.001	1.51 (1.03; 2.21); 0.035
LVSI				
None (Ref.)	73 (35.3)	1409 (75.3)		
Isolated	44 (21.3)	219 (11.7)	3.88 (2.60; 5.79); <0.001	2.51 (1.59; 3.97); <0.001
Diffuse	90 (43.5)	244 (13.0)	7.12 (5.08; 9.97); <0.001	3.27 (2.16; 4.94); <0.001
Cervical Stromal Invasion	104 (50.2)	195 (10.4)	8.68 (6.37; 11.84); <0.001	4.26 (3.00; 6.03); <0.001

Abbreviations: BMI: Body Mass Index; ER: estrogen receptor; PR: progesterone receptor; IMMR: instable Mismatch Repair; FIGO: International Federation of Gynecology and Obstetrics; LVSI: Lymphovascular space invasion; VB: Vaginal Brachytherapy; EBRT: External beam Radiation Therapy; OR: Odds Ratio; CI: confidence interval

* Immune-phenotype includes all Mismatch Repair System Components expression, i.e. MLH1: Methyl Homolog 1; MSH2: Methyl homolog 2; MSH6: Methyl homolog 6 gene, and PMS2: PMS1 Homolog 2.

** Data are expressed as absolute and percentage frequencies if qualitative, as median and interquartile range (IQR) if quantitative. In bold significant findings (p<0.05); in italic suggestive associations (0.1<p<0.05).

Results 2079 patients were finally included in the study. Of those, 55 were stage IIIA EC (annual incidence 0.11%). Recurrences occurred in 16 out of 55 patients (29.1%), mostly pelvic and lymphatic (43.8% each). Notably, 27/39 (69.2%) who did not recur underwent chemotherapy with external beam radiation therapy. 5-years RFS and OS in stage IIIA were 72.7% and 85.5%, respectively. Overall, 207 patients had adnexal involvement (annual incidence 0.42%), with myometrial infiltration [(MI) OR 1.51, 95% 1.03–2.21; 0.035],