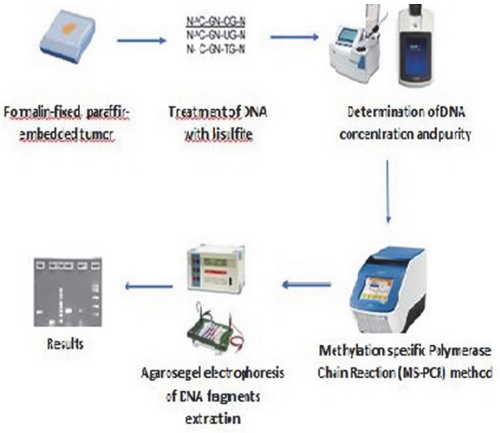
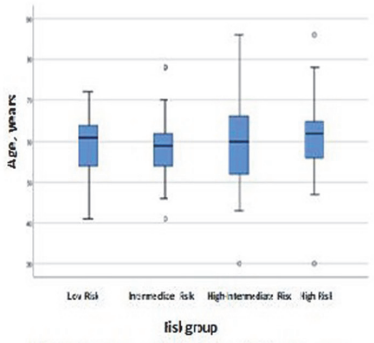


Fig. 1. Determination of methylation status of the MLH1 gene



Tab. 1. The mean age of patients from all risk groups, years

Age, years	Promoter hypermethylation of MLH1	
	Abs.	%
30—39	-	-
40—49	2	20.0
50—59	3	30.0
60—69	5	50.0
70—79	0	0

Tab. 2. The mean age of patients with Promoter hypermethylation of MLH1, years

Abstract #103 Figure 1/Table 1, 2

Disclosures None

#104 RISK FACTORS FOR SENTINEL LYMPH NODE METASTASIS IN ENDOMETRIAL CANCER (TRSGO-SLN-010)

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Introduction/Background There is limited consensus on the optimal management approach for patients experiencing mapping failure in endometrial cancer (EC). Understanding the risk factors that contribute to sentinel lymph node(SLN) metastasis is of paramount importance. This manuscript aims to provide a comprehensive analysis of the risk factors associated with SLN metastasis.

Methodology A total of 874 women with EC were included in this retrospective study. Out of the initial cohort of 874 patients, a total of 793 patients with successful SLN mapping were included and analysed to investigate the risk factors for SLN metastasis in EC.

Results SLN metastasis was detected in 73 (9.2%) patients. Among the metastatic cases, 20 (27.4%) patients had isolated tumour cells (ITC), 17 (23.3%) patients had micrometastasis, and 36 (49.3%) patients had macrometastasis in the sentinel lymph nodes. The results of the univariate analysis demonstrated a significant association between SLN metastasis and several factors, including age over 60 years, histology other than endometrioid, tumor grade 3, deep myometrial invasion, lymphovascular space invasion (LVSI), primary tumour diameter of 2 cm or larger, and cervical stromal invasion ($p < 0.05$). At the end of multivariate analysis, deep myometrial invasion [odds ratio (OR), 2.42; 95% confidence interval (CI), 1.29–4.56; $p = 0.006$], LVSI (OR, 7.27; 95% CI, 3.82–13.81; $p < 0.001$) and cervical stromal invasion (OR, 2.18; 95% CI, 1.13–4.21; $p = 0.020$) remained as independent risk factors for SLN involvement in women with EC.

Conclusion LVSI, deep myometrial invasion, and cervical stromal invasion emerged as independent risk factors for SLN metastasis in patients diagnosed with EC. In cases where the identified risk factors are absent, the omission of lymphadenectomy may be considered in instances of SLN mapping failure.

Disclosures The authors has no competing financial interests or conflicts of interest to disclose.

#110 ROLE OF EXTRACELLULAR VESICLES IN EARLY DIAGNOSIS OF ENDOMETRIAL CANCER

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Introduction/Background Extracellular vesicles are a class of cell-derived submicron particles, mediating cellular crosstalk through micro-RNA (miRNA). MiRNA are a group of RNA molecules, composed of 15–22 nucleotides each, post-transcriptionally regulating genes. Complementary mRNAs – into which miRNAs hybridise – are involved in implantation, tumour suppression, proliferation, angiogenesis, and metastatization defining tumour microenvironment. Despite endometrial biopsy being a standardized option to diagnose cellular atypia, non-invasive biomarkers may avoid discomfort of invasive procedures. The present study aims to evaluate distribution and regulation of differently expressed miRNAs (DEMs) in the context of endometrial cancer.

Methodology Following the recommendations in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement, we systematically searched PubMed, EMBASE, Scopus, Cochrane Library, and Science Direct databases in April 2023, adopting the string 'Endometrial Neoplasms AND Exosomes'. We selected studies including patients with endometrial cancer, describing miRNA regulation in that

context. Among DEMs, differences were considered significant between patients and controls when proteins showed a fold change of ±1.5.

Results 17 records fulfilled inclusion criteria: a total of 550 patients and 403 controls were analysed. Among upregulated miRNAs, the ones with the widest delta between endometrial cancer patients and controls – Relative Expression ≥ 2 Log2 (ratio) – were: hsa-circ-0109046; hsa-circ-0002577; APOA1 (apolipoprotein A-I); HBB (haemoglobin subunit beta); CA1 (carbonic anhydrase 1); HBD (haemoglobin subunit delta); LPA (apolipoprotein A); SAA4 (serum amyloid A-4 protein); PF4V1 (platelet factor 4 variant); APOE (apolipoprotein E). Those can be found in serum through liquid biopsy. In parallel, the most downregulated miRNA in endometrial cancer patients compared to healthy subjects is miR-320a, to be found in endometrial specimens. Results are summarized in table 1.

Abstract #110 Table 1 MicroRNA expression profiles in patients with endometerial cancer.

Author, year of publication	Country	Period of enrolment	Study type	FIGO Stage of disease	No. of patients	No. of controls
Záveský 2015 ^	Czech Republic	N/A	Perspective multicentre case-control	II-III	10	13
Fan 2018	China	N/A	Perspective monocentre case-control	N/A	30	30
Li 2018	China	N/A	Perspective monocentre case-control	I	23	23
Srivastava 2018	USA	N/A	Perspective multicentre case-control	N/A	22	5
Xu 2018	China	N/A	Perspective monocentre case-control	III	10	10
Roman-Canal 2019	Spain	N/A	Perspective monocentre case-control	N/A	25	25
Fan 2020	China	2016-2017	Perspective multicentre case-control	I-IV	93	79
Jia 2020	China	2017-2019	Perspective monocentre cohort	I-IV	62	0
Jing 2020	China	2018-2019	Perspective monocentre case-control	N/A	5	5
Shi 2020	China	N/A	Retrospective monocentre cohort study	N/A	79	12
Song 2020	China	N/A	Perspective monocentre case-control	I-IV	12	6
Zhang 2020	China	N/A	Retrospective multicentre case-control	II-III	10	10
Fan 2021	China	2016-2017	Perspective multicentre case-control	I-IV	92	102
Gu 2021	China	N/A	Perspective monocentre case-control	N/A	25	25
Zhou WJ 2021	China	2018-2019	Perspective monocentre cohort	N/A	15	15
Zhou L 2021	China	N/A	Perspective monocentre case-control	I	25	31
Sommella 2022	Italy	2019-2021	Perspective multicentre case-control	I-IV	12	12

^: sub-analysis of entire cohort.
FIGO: International Federation of Gynaecology and Obstetrics; N/A: not available.

Conclusion Although epigenetic regulation is unclear, upregulated miRNAs are feasible biomarkers to early detect endometrial cancer. MiRNAs modulation should be clarified during therapies or relapse, to plan targeted management.

Disclosures None declared.

#111 INDIVIDUALISING TREATMENT WITH MINIMALLY INVASIVE MOLECULAR MARKERS IN ENDOMETRIAL CANCER

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Introduction/Background Integration of molecular markers has initiated more individualised approaches to treatment of endometrial cancer (EC). These are determined on tissue samples procured during diagnostic procedures or after surgical treatment, contributing to long turnaround times. Hence, their clinical utilisation is challenging. To overcome this we have developed, and are in the process of validating samples of microRNA (miRNA) determined from circulating free RNA. The aim of this study was to identify markers of epithelial-mesenchymal transition (EMT) to supplement current diagnostic assessment of women with EC.

Methodology The expression of EMT markers E- and N-cadherin in tumour tissue was evaluated by immunohistochemistry (IHC). Plasma levels of circulating cell free miR-148a-3p, miR-183–5p, miR-194–5p, miR-195–5p, miR-215–5p and miR-326 were quantified by RT-qPCR. Pretreatment assessment was classified as high risk for EC requiring escalated treatment and low risk EC. Correlations were performed using the Spearman rank test, continuous data was compared using the Mann-Whitney U test. Ongoing studies are evaluating the needed cfRNA characteristics and the validity of initial data.

Results Fifty women were included in this study. Median age was 69 years (min 35 - max 84 years). Median BMI was 31 (min 19 - max 41). IHC markers of E-cadherin and N-cadherin were not correlated with miRNA markers or clinicopathological characteristics of EC. The age of patients was correlated with miRNA194 ($rs=-.445$, $p<0.006$), miRNA215 ($rs=-.498$, $p<0.002$), miRNA326 ($rs=-.339$, $p<0.043$). Furthermore, levels of miRNA194 ($U=35.000$; $p<0.013$) and miRNA215 ($U=33.000$; $p<0.010$) were correlated with menopausal status. Levels of miRNA326 ($U=106.000$; $p<0.033$), miRNA215 ($U=106.000$; $p<0.033$), miRNA194 ($U=104.000$; $p<0.028$), miRNA183 ($U=101.000$; $p<0.023$) was independently correlated with high risk EC. The levels of miRNA194 ($U=85.000$; $p<0.005$) and miRNA215 ($U=101.000$; $p<0.021$) were also correlated with myometrial invasion.

Conclusion Evaluation of miRNA levels should be explored with adjustment for age in order to develop appropriate minimally invasive prediction models for pre-treatment risk assessment.

Disclosures The authors have nothing to disclose.