performing the procedure with a clear view and reaching various structures in the pelvic cavity. Each Arm corresponds to the respective hand of the surgeon as controlled by the right and left Joysticks. The surgeon controls the Hominis Arms through two Hominis motor units. the motor units house a motorized prismatic joint that enables controlled linear motion to insert and extract the Arms from the pelvic cavity. Blunt dissection is performed with vaginal total hysterectomy, bilateral salpingo-oophorectomy, pelvic lymphadenectomy, approximation, and electrosurgery, using monopolar and bipolar energy systems. The vaginal cuff is closed with Vicryl sutures.

Results The procedure is successfully performed. No conversion to standard multi-incision laparoscopy or laparotomy is necessary. Mean vaginal time is 19 minutes, mean docking time is 18 minutes, and mean console time is 35 minutes. The mean drop in hemoglobin level is 1.3 g/dl. Most patients score a low postoperative pain score (range 3- 6) .

Conclusion Robot-assisted natural orifice vaginal hysterectomy for early-stage endometrial cancer – Farghaly's Technique is associated with minimal blood loss, short operative time and length of hospital stay, lower pain score, and low use of analgesics. Thus, it may be considered a reasonable alternative to the robot-assisted abdominal approach in medically compromised women.

2022-RA-1322-ESGO A FEASIBILITY STUDY OF ENDOMETRIAL CAVITY CYTOLOGICAL SAMPLING FOR PRECISION TREATMENT IN ENDOMETRIAL CANCER

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Introduction/Background Understanding biological characteristics of endometrial cancer (EC) has opened possibilities of treatment individualisation. Enabling non-invasive methods of evaluation in patients with EC can therefore aid decision making in the office setting. Herein, we present the feasibility study evaluating endometrial cytological sampling and mutational analysis of catenin beta-1 (*CTNNB1*) gene to aid integrated molecular classification of tumours prior to treatment.

Methodology Women were recruited at the University Medical Centre Maribor between November 2020 to May 2022. Prior to surgical treatment for benign disease or EC, endometrial cytological sample was obtained using Endobrush (Lab CCD, Paris, France) and stored in DNA/RNA Shield™. Tumour biopsies were stored following routine pathologic examination. DNA was extracted from tumours and cytological samples using QIAamp DNA Mini Kit and Qiuck-DNA/RNA MinPrep Plus Kit, respectively. Sanger sequencing was used to detect mutations in the exon 3 of *CTNNB1*. Cytological samples were compared to tumour tissue. Continuous variables were expressed as median, and proportions indicated as percentages. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated for *CTNNB1* mutational status determination.

Results Patient characteristics are presented in table 1. Among 24 women included in the study, 2 patients (8%) were identified having *CTNNB1*-mutated tumours. *CTNNB1* mutational status was not confirmed in cytological samples. The current approach to tissue sampling resulted in 50% sensitivity and 100% sampling specificity. The positive predictive value was 100% and the negative predictive value 94.7%. The test diagnostic accuracy is currently 92.3%. Cytology DNA isolation failure was present in one women with FIGO IA disease and in a control sample.

Abstract 2022-RA-1322-ESGO Table 1 Patient cohort characteristics

Table 1: Patient cohort characteristics			
Age at time of diagnosis			70.5 years (47-84 years)
Parity			2 (0-3)
Menopausal status	Premenopausal		2 women (8%)
	Post-menopausal		22 women (92%)
Body Mass Index (BMI)			29.0 (23-36)
FIGO stage	benign control		4 women (16.7%)
	IA		8 women (33.3%)
	IB		7 women (29.2%)
	II		1 woman (4.2%)
	III		4 women (16.7%)
Molecular subgroup classification[1]	POLE mutated		0
	Mismatch repair deficient (MMRd)		6 (25%)
	No specific mutational profile (NSMP)		8 (45%)
	p53 abnormal (p53abn)		5 (25%)
CTNNB1 status	cytological sampling	overall isolation rate	18 samples (75%)
		DNA isolation failure	2 samples (8.3%)
		sequencing failure	4 samples (16.7%)
	tissue sampling	overall isolation rate	22 samples (91.6%)
		DNA isolation failure rate	0 samples
		Sequencing failure rate	2 samples (8.3 %)

[1]Characterisation performed as previously described in Knez et al. Pre-treatment risk assessment of women with endometrial cancer: differences in outcomes of molecular and clinical classifications in the Slovenian patient cohort. Radiol Oncol. 2021 Sep 17;56(1):76-82.

Conclusion DNA isolation from endometrial cytology samples was successful in 91% of samples and isolation of *CTNNB1* mutations showed an appropriate level of specificity, but optimisation of sensitivity is needed for clinical use implementation.

2022-RA-1323-ESGO ENDOMETRIAL CANCER AGGRESSIVENESS MAY BE ASSOCIATED WITH EXPOSURE TO PHTHALATES

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Introduction/Background Phthalates are endocrine-disrupting chemicals (EDCs) widely used in consumer products. They can competitively bind to oestrogen and androgen receptors and impact signalling. In-vitro studies have shown certain phthalates to cause considerable inflammatory reaction. Analysis of EC cell lines exposure indicates butyl-benzyl phthalate (BBP) to influence transcription and miRNA expression. Certain phthalates, such as dibutyl phthalate (DBP) have also been directly associated with increased EC risk. Common small phthalate esters (diethyl phthalate (DEP) and DBP were evaluated in this study to examine the association of exposure to phthalates with EC risk profiles.

Methodology A prospective, single-centre, cohort study including all women diagnosed with EC between December 2020 and February 2022. Patients were asked to provide a urine sample, peripheral venous blood sample as well as complete a lifestyle questionnaire before management. Gas chromatography-mass spectrometry (GC-MS) was used to detect phthalates. All results were adjusted for urinary dilution by measuring urinary creatinine levels.

Results Thirty-nine women with a median age 60 (range 35–86) were included in this study. 29 women (74%) were diagnosed at FIGO I or II stage of the disease, while others were diagnosed at advanced stage. Women were stratified based on