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 electrocautery, 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 – 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.

A FEASIBILITY STUDY OF ENDOMETRIAL CAVITY CYTOLOGICAL SAMPLING FOR PRECISION TREATMENT IN ENDOMETRIAL CANCER

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 sampling 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 Quick-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.

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.
The impact of combination of endometrial cancer patients with 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>3.5 (HR:2.424;95%CI:1.512–3.886;p<0.001), SII>1050 (HR:2.738;95%CI:1.665–4.502;p<0.001), PLR>250 (HR:2.747;95%CI:1.453–5.194;p=0.002), FAR>10 (HR:1.841;95%CI:1.138–2.978;p=0.013), MLR>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≥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≥250 (90.1% versus 62.5%, p=0.020 and 74.9% versus 33.3%,p=0.045, respectively).

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>250 surpassed ER, PR and p53 in conferring risk of recurrence.

ENDOMETRIAL CANCER PATIENTS WITH AN OVER EXPRESSION 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.