Methodology Patients who have endometrioid endometrial cancer stage IAG1/G2 and desire fertility preservation are selected. The patients receive transcervical hysteroscopic tumor resection under general anesthesia. Stryker's 2.9 mm Rev360 hysteroscope is used. The uterine cervix is gradually dilated up to 8 using a Hegar dilator. The uterine cavity is distended with 3.0-L bags of 1.5% glycine under a gravity inflow of 70 mm Hg pressure. A 5- mm cutting loop electrode with 100 W of power is used to resect the tumor lesion until the myometrium underlying the lesion is visualized. Samples are subjected to histopathological examination. Postoperatively, the patients receive combined therapy of Medroxy Progesterone Acetate (MPA) 600 mg daily combined with Metformin for 12 months. The treatment is monitored by hysteroscopic targeted endometrial sampling every 3 months. Psychological support is provided to manage the risk of developing anxiety and depression.

Results Blood loss is minimal and uneventful post-operative recovery. The tumor histology and grading were confirmed and there is no lymphovascular space invasion noted in the final pathologic examination. The complete response to therapy is defined as the absence of disease on subsequent endometrial biopsy, and partial response if the disease is downgraded. No response is defined as who has no evidence of response, and progression is defined as the presence of a higher grade of cancer on biopsy. Also, obstetrical outcomes are noted.

Conclusion Farghaluy's technique of hysteroscopic tumor resection followed by progestin and Metformin therapy for early-stage endometrial cancer is a safe conservative treatment strategy. It could be an option for young patients who wish to preserve fertility

2022-RA-1526-ESGO RISK FACTORS FOR SENTINEL LYMPH NODE INVOLVEMENT IN PATIENTS WITH APPARENT EARLY-STAGE ENDOMETRIAL CANCER: A RETROSPECTIVE SINGLE-CENTER STUDY

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10.1136/ijgc-2022-ESGO.335

Introduction/Background Sentinel lymph node (SLN) mapping with indocyanine green (ICG) has become the standard of care in apparent early-stage endometrial cancer. The aim of this study is to evaluate the possible risk factors (RFs) for lymph-nodal metastases, differentiating by the type of metastasis.

Methodology This is an observational single-center retrospective study. We reviewed 96 patients with a diagnosis of apparent early-stage endometrial cancer submitted to hysterectomy with salpingo-oophorectomy and SLN mapping from December 2015 to March 2022. Possible RFs for nodal metastasis were considered including clinical (age, BMI), and biochemical (CA125, CA 19.9, HE-4) parameters, anatomopathological characteristics (Myometral invasion – MI, Lymphovascular space invasion (LVSI), grade, histotype) and immunohistochemical findings (L1CAM, Ki67, estrogen receptor – ER, progesterone receptor- PR). Odds ratios (ORs) were calculated, and then RFs were confronted with logistic regression.

Results Overall detection rate was 94.8%, 83.3% bilateral, and 11.5% unilateral. We removed 181 suspected SLNs. The preponderance of SLNs was found at the external iliac and interiliac stations (69%). 7 patients had macrometastases, 5 micrometastases, and 7 ITCs. Higher ER percentage resulted in a protective factor (PF) for lymph nodal metastasis. MI more than 50%, LVSI, and p53 positivity resulted in RFs for lymph nodal metastases. Histotype, age, and L1CAM showed a slight, not significant, correlation as possible RFs. The multivariate multinomial analysis didn't find any statistically significant differences between the RFs and the type of metastasis.

Abstract 2022-RA-1526-ESGO Table 1 Impact of possible risk factors on model involvement

Risk Factor	Positive Lymph nodes	Negative Lymph Nodes	Odd Ratios		
	N	N	CI- (95%)	OR	CI + (95%)
CA 125 >= Median	13	25	0.6	1.8	5.6
CA 125 < Median	6	21			
CA 19.9 >= Median	9	29	0.3	0.8	2.4
CA 19.9 < Median	10	27			
HE4>= Median	11	27	0.5	1.5	4.2
HE4 < Median	8	29			
Age > Median	13	27	0.8	2.3	7.0
Age < Median	6	29			
BMI > Median	8	30	0.2	0.6	1.8
BMI < Median	11	26			
Grade = 3	7	9	0.7	2.4	7.8
Grade < 3	12	37			
Type 1	5	4	0.8	3.8	15.9
Type 2	14	42			
ER % >= Median	2	21	0.01	0.07	0.4
ER % < Median	11	9			
PR % >= Median	4	18	0.08	0.3	1.4
PR % < Median	8	12			
Ki67 % >= Median	7	15	0.3	1.2	4.6
Ki67 % < Median	6	16			
MI >= 50%	12	15	1.6	4.7	14.1
MI < 50%	7	41			
LVSI +	12	28	1.1	9	75
LVSI -	1	21			
L1CAM +	5	11	0.8	3.9	19.4
L1CAM -	3	26			

Conclusion Our study shows a good SLN detection rate in line with the literature. The multivariate multinomial analysis shows that there are no differences in the RFs for the different types of metastases suggesting that these entities are a pathological continuum. Further studies are needed.

2022-RA-1529-ESGO ENDOMETRIAL CANCER PATIENT-DERIVED EXPLANTS DETECT DRUG-RESPONSES TO STANDARD-OF-CARE CHEMOTHERAPIES AND IMMUNOTHERAPY EX-VIVO

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10.1136/ijgc-2022-ESGO.336

Introduction/Background A novel Endometrial Cancer Patient-Derived-Explant (EC-PDE) preclinical model system was developed that is capable of detecting patient-specific drug-responses to standard-of-care chemotherapies and immunotherapy *ex vivo*.

Methodology Endometrial tumour was obtained from 21 patients with endometrial cancer and processed into explants. EC-PDEs were then cultured at the air-liquid interface for up to 24 h followed by a further 24 h treatment with Carboplatin and Paclitaxel (CP) or Pembrolizumab and then processed into histology slides. Multiplexed immunofluorescence for Ki67 (proliferation marker), cPARP (apoptosis marker) and CAM 5.2 (tumour mask) was performed for viability studies. Images were then analysed with quantitation of biomarker expression and necrosis area.
Results EC-PDEs maintained the histological architecture of the tumour and surrounding TME and remained viable for up to 48 h. Differential drug-responses were detected to single- and dual-agent chemotherapy with positive correlations identified between cell-death and advanced stage ($r^2=0.21$, $p=0.04$), grade ($r^2=0.28$, $p=0.01$) and ESGO risk-categorisation of disease ($r^2=0.49$, $p<0.01$). Cell-death-responses were identified in 61.9% of EC-PDEs following Pembrolizumab-treatment. A third (33.3%) of EC-PDEs responded to both chemotherapy and immunotherapy, 28.5% responded to Pembrolizumab but were resistant to CP, 19% responded to CP but were resistant to Pembrolizumab and 19% of EC-PDEs were resistant to both CP and Pembrolizumab.
Conclusion EC-PDEs are a rapid, low-cost pre-clinical model which offers the potential for rapid, personalised pre-clinical drug-response testing. Drug-resistance can be identified in EC-PDEs and EC-PDEs could be used in future to explore the biological effects of immunotherapy and to evaluate predictors of drug response and mechanisms of drug-resistance.

2022-RA-1531-ESGO MANAGEMENT OF CLEAR CELL CARCINOMA OF THE ENDOMETRIUM: EXPERIENCE OF SALAH AZAIEZ INSTITUTE

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10.1136/ijgc-2022-ESGO.337

Introduction/Background Clear cell carcinoma of the endometrium is an uncommon form of endometrial cancer. It accounts for 0.8% to 6% of all uterine malignancies. It arises from the mullerian epithelium.
Methodology We retrospectively analyzed clinical data of 6 patients with clear cell carcinoma of the endometrium who were treated in our institute during the last decade
Results The median age was 60. Four of our patients had a history of diabetes and hypertension. Metrorrhagia was the most common symptom. Prior to therapy, clinical staging was performed on each patient. Treatment was based on surgery, radiation, brachytherapy, and chemotherapy. A total of five cases had surgery at the beginning. Colpohysterectomy with bilateral adnexectomy and bilateral pelvic lymphadenectomy were performed in all cases. Three patients had lumbar aortic lymph node dissection. Only one patient with stage IVB cancer had a mesenteric nodule biopsy and adnexectomy. In four cases, radiation was recommended, but one patient was rejected because of her weight. Four patients received brachytherapy. Adjuvant chemotherapy was given to four patients. After a median follow up of 32 months one patient presented vaginal recurrence, while two had pelvic relapse and one had abdominal recurrence. The mean time to recurrence was 6 months (2 to 11 months) after surgery. The patient with vaginal recurrence was treated with surgical excision and brachytherapy. She was recurrence free at last follow up. Two patients with pelvic recurrences progressed despite a surgical-radiation therapy and chemotherapy. The other patient was given palliative treatment.
Conclusion Endometrial clear cell carcinoma is thought to be more aggressive than endometrial adenocarcinoma. It is less sensitive to treatment and has a higher risk of recurrence.

2022-RA-1534-ESGO ICG MAPPED SENTINEL LYMPH-NODE BIOPSY IN ENDOMETRIAL CANCER: ANALYSIS OF SURGEONS' LEARNING PROCESS

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10.1136/ijgc-2022-ESGO.338

Introduction/Background The aim of this study was to analyze the surgeons' learning process for indocyanine green (ICG) mapped sentinel lymph-node biopsy (SLB) in endometrial cancer (EC) patients.
Methodology Prospective study was conducted in a centre with no previous experience on ICG mapped SLB. 190 EC patients underwent laparoscopic hysterectomy with SLB (and additional lymphonodectomy in intermediate and high-risk groups). All surgeries were performed by 8 oncogynaecologists.The tabular cumulative sum (CUSUM) charts with sequential probability ratio test (SPRT) limits were plotted for each surgeon to evaluate the bilateral SL identification (target rate 75%) and removal of SLs containing lymphatic tissue (target rate 90%).
Results At least one SL per hemipelvis was mapped in 89.5% (170/190) of the patients. Bilateral mapping rate was 70.5% (134/190).The cumulative successful bilateral mapping rate tends to improve with the experience gained performing the SLB (Spearman's rho 0.728; $p<0.001$).The CUSUM plot for bilateral SL mapping showed that the primary SPRT limit was crossed only by one surgeon after 13 consecutive, successfully bilaterally mapped SLB. The result was achieved after 30 SLB procedures.305 SL samples were mapped and removed. After final histological evaluation in 10.5% (32/305) no lymphatic tissue was found. The overall rate of lymphatic-tissue containing SL samples was 89.5%.The CUSUM plotted for removal of SLs containing lymphatic tissue showed that SPRT limit was crossed by 5 surgeons after 6 consecutives lymphatic tissue containing SL specimens. Other two surgeons crossed the SPRT limit after the removal of 11 and 20 SL specimens, while one surgeon reached the limit after removing 71 SL specimens.
Conclusion The CUSUM plots indicates that bilateral mapping of SL in endometrial cancer patients was achieved after 30 SLB procedures performed. However, the successful identification and removal of lymphatic tissue containing SL specimens was achieved after 6 consecutives procedures.