Abstract 2022-RA-712-ESGO Table 1 MSI/MMR testing prevalence in women with recurrent or aEC in Europe

Variable	Statistic or Category	All (N = 244)	UK (N = 49)	France (N = 50)	Germany (N = 48)	Italy (N = 49)	Spain (N = 48)
Any MSI/MMR testing (IHC or PCR), N (%)	Not tested	156 (63.9)	39 (79.6)	28 (56)	34 (70.8)	38 (77.6)	17 (35.4)
	Yes	88 (36.1)	10 (20.4)	22 (44)	14 (29.2)	11 (22.4)	31 (64.6)
PCR/IHC test administration among those tested, N (%)	Before treatment initiation	56 (63.6)	10 (100)	11 (50)	6 (42.9)	5 (45.5)	24 (77.4)
	After treatment initiation	32 (36.4)	0 (0)	11 (50)	8 (57.1)	6 (54.5)	7 (22.6)
MSI/MMR Status among those tested, N (%)*	Non-MSI-H/pMMR	72 (81.8)	9 (90)	19 (86.4)	8 (57.1)	9 (81.8)	27 (87.1)
	MSI-H/dMMR	13 (14.8)	1 (10)	2 (9.1)	5 (35.7)	2 (18.2)	3 (9.7)
	Mixed	3 (3.4)	0 (0)	1 (4.5)	1 (7.1)	0 (0)	1 (3.2)

Abbreviations: aEC, advanced endometrial cancer; **dMMR**, mismatch repair protein deficient; **IHC**, immunohistochemistry; **MMR**, mismatch repair; **MSI**, microsatellite instability; **MSI-H**, high microsatellite instability; **Non-MSI-H**, non-high microsatellite instability **PCR**, polymerase chain reaction; **pMMR**, mismatch repair protein proficient.

* Patients were categorized as either 1) Non-MSI-H/pMMR: Microsatellite stable (MSS), MSI-Low or MMR proficient (pMMR), 2) MSI-H/dMMR: MSI-high (MSI-H) or MMR deficient (dMMR), 3) Mixed results: patients with both IHC and PCR tests with results indicating overlapping tumor status (non MSI-H with dMMR or MSI-H with pMMR).

Conclusion MSI/MMR testing rates among aEC patients in Europe are low and vary across countries. The majority of tested patients had non-MSI-high/pMMR tumors. Knowledge of MSI/MMR testing may be helpful for optimal utilization of targeted therapies in Europe.

2022-RA-726-ESGO ENDOMETRIAL CANCER ORGANOIDS CAN RELIABLY BE USED AS REPLICAS OF PRIMARY TUMOUR IN ENDOMETRIAL CANCER RESEARCH

[1]Anita Semertzidou, [1]Richard Williams, [1]Nadia Fernandes, [2]Jan Brosens, [1]David MacIntyre,[1]Julian Marchesi, [1]Phillip Bennett, [1]Phillip Bennett. *[1]Imperial College London, London, United Kingdom; [2]Warwick University, Coventry, United Kingdom*

10.1136/ijgc-2022-ESGO.230

Introduction/Background Organoids are increasingly being used as complex, multi-dimensional, multi-cell structures resembling entire organs and have now been derived from a variety of tissues.

Methodology We established endometrial organoid cultures from pipelle biopsies of 11 patients with endometrial cancer (EC) (7 endometrioid, 3 serous, 1 clear cell) and 3 patients with benign conditions. Organoids were grown in Matrigel and medium supplemented with growth factors, Rspondin-1, Noggin, A83–01 and nicotinamide. The genomic and epigenomic features of organoids and parent tissue were compared in pairs and by histological type using targeted gene sequencing and whole-genome DNA methylation profiling.

Results The genetic variations and mutations in seven genes *(PTEN, ARID1A, PIK3CA, POLE, CTNNNB1, KRAS, TP53)* were largely shared by primary tumours and EC-derived organoids and exhibited histological type-specific characteristics. Similarly, the DNA methylation fingerprint was preserved in cultured endometrial cancer organoids with only few differentially methylated positions (DMPs) compared to tumour tissue. EC epigenetic profiles were distinct to benign endometrial organoids and clustered together according to histotype.

Conclusion Endometrial cancer organoids can reliably be used as replicas of primary tumour in endometrial cancer research.

2022-VA-739-ESGO PELVIC SENTINEL LYMPH NODE DISSECTION IN ENDOMETRIAL CANCER

Faiza Gaba, Alexandra Lawrence. *Department of Gynaecological Oncology, Barts Health NHS Trust, The Royal London Hospital, London, United Kingdom*

10.1136/ijgc-2022-ESGO.231

Introduction/Background Sentinel lymph node (SLN) biopsy is an alternative staging approach in women with early-stage endometrial carcinoma. The SLN approach is introducing 'precision medicine' to the surgical management of gynaecological cancers, providing a comprehensive evaluation of high-yield lymph nodes. This approach improves our ability to detect small-volume metastatic disease whilst reducing intra-operative and post-operative morbidity associated with systematic lymphadenectomy. Although the majority of clinicians in Europe/USA have recognised the value of SLN biopsy in endometrial carcinoma and introduced this as part of clinical practice, there is ongoing debate regarding its role in very low-risk patients and patients at high risk of nodal metastasis. The significance of low-volume metastasis is not fully understood, and there is no consensus in regard to how the presence of isolated tumour cells should guide adjuvant therapy.

Methodology We present a case of a forty-seven year old woman presenting with grade III, radiological stage IIICI endometrioid endometrial carcinoma. A pre-operative MRI have revealed a suspicious 9 mm left external iliac lymph node. She underwent a total laparoscopic hysterectomy, right sentinel lymph node biopsy and systematic left pelvic lymph node dissection.

Results Final histopathology revealed a grade III, stage IA endometrioid endometrial carcinoma, ER+, P53 wild type, MMR proficient. She underwent an uneventful post-operative recovery. Following counselling, she declined vault brachytherapy.

Conclusion SLN biopsy is increasingly used as an alternative to systematic lymphadenectomy in surgical staging in endometrial carcinoma, has gained significant acceptance and is applied in many centres. Robust data exists regarding the accuracy of SLN biopsy for nodal staging in all risk-categories of endometrial carcinoma, but prospective data on oncological outcomes are lacking.

2022-RA-753-ESGO IS LAPAROSCOPY A SAFE APPROACH FOR TREATMENT OF STAGE II ENDOMETRIAL CANCER? A SINGLE CENTRE 10 YEARS EXPERIENCE

Andreas Zouridis, Hooman Soleymani. *Gynaecological Oncology – Churchill Hospital, Oxford University Hospitals, Oxford, United Kingdom*

10.1136/ijgc-2022-ESGO.232

Introduction/Background Although minimal invasive approach has been established as the standard surgical treatment in early stage endometrial cancer, the oncological safety of laparoscopy when cervix is involved is not based on strong evidence. Our retrospective analysis aims to investigate whether there is any difference on overall and cancer specific survival between patients treated by laparoscopy and laparotomy for stage II endometrial cancer in a single Cancer Centre over a decade.

Methodology Our cohort consisted of all patients operated in Oxford University Hospitals Trust between 2010 and 2020 with microscopically proven stage II endometrial cancer. The audit was registered according to the local equirements with registration number 5832. Categorical variables were compared using chi-square test and continuous variables with independent samples t-test. Survival rates were determined from