IGCS 2025 CAPE TOWN

Annual Global Meeting, November 5–7, 2025

IGCS 2025 Abstracts:
Regular Submission Featured Printed Poster Presentations (Poster Rounds with the Professors)

Featured printed posters will be presented in Poster Rounds with the Professors' sessions during the morning and afternoon coffee breaks on all three main days of the meeting. For the exact presentation times, please check the interactive program.

Printed posters will be displayed in the Poster Area located in Hall D on the ground floor of the meeting venue. In addition, featured poster presenters were requested to submit an E-Poster and a short oral presentation as an audio file. Registered delegates will have access to all submitted E-Posters via the IGCS 2025 mobile application, IGCS 360 Educational Portal, and the onsite E-Poster stations. Submitted audio files will be available together with their E-Posters via the IGCS 360 Educational Portal.

PR001 / #1063

Topic: *AS01. Basic Sciences / AS01a. AI*

ENHANCED ENDOMETRIAL CANCER RISK CLASSIFICATION MODEL: A MACHINE LEARNING-BASED APPROACH FOR A TAILORED MANAGEMENT OF THE "CINDERELLA" GYNAECOLOGIC CANCER

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Introduction: In SLYMEC the prognostic impact of LVSI on the sentinel lymph node status and on 3-year DFS in Endometrial Cancer (EC). SLYMEC II findings showed that EC 5-years OS is impaired in substantial LVSI when compared to negative, or focal LVSI. The aim of the current study on SLYMEC II cohort is to improve clinical prediction of EC patients' risk classes through a Machine Learning (ML)-based model, since known prognostic factors are not sufficient to predict prognosis, especially at early stages.

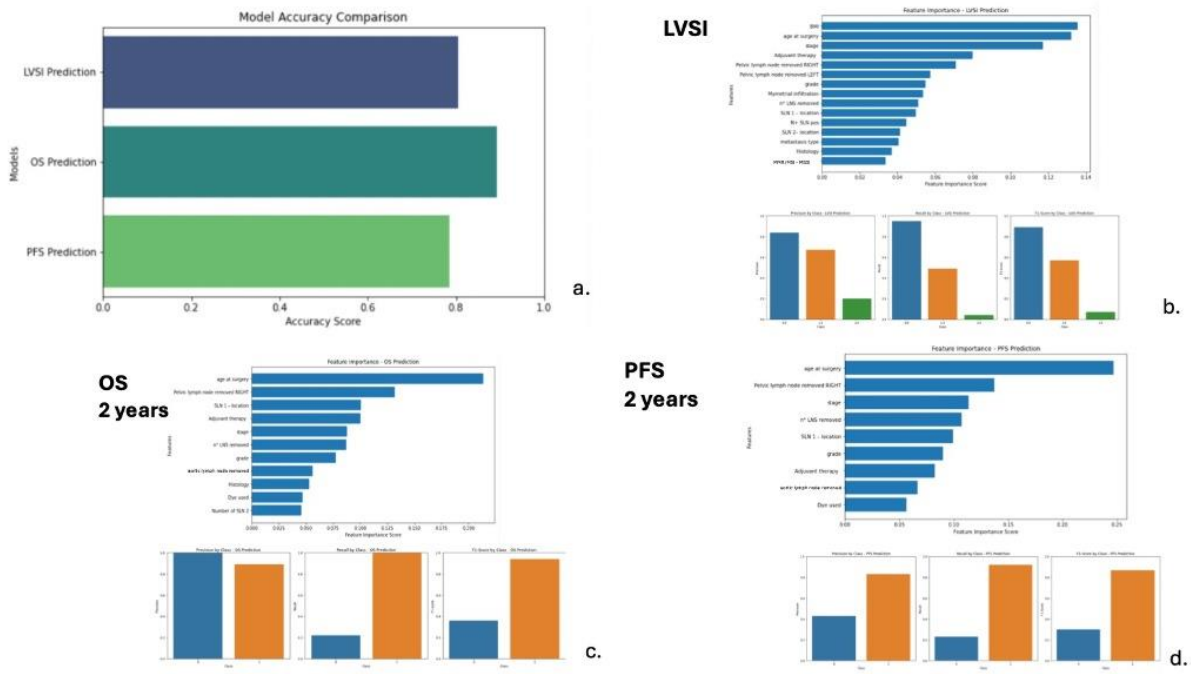
Methods: A total of 2030 patients with endometrioid EC were included, as reported in the SLYMEC II trial (Table 1). A Random Forest model was employed for each endpoint (LVSI, OS, PFS) using relevant clinical and surgical variables. Significance of these features was assessed through feature importance analysis and the model performance was evaluated using standard classification metrics.

Table 1. General characteristics of the study population (N= 2030 patients), modified by SLYMEC trial

Age (years)	Median (IQR)	62 (55 – 70)
BMI (kg/m²)	Median (IQR)	28.4 (24.2 – 33.9)
FIGO stage N (%)		
	I	1700 (83.8)
	II	119 (5.4)
	III	315 (15.5)
	IV	6 (0.3)
	missing	4 (0.2)
Grade N (%)	I	770 (38.0)
	II	970 (47.8)
	III	285 (13.9)
	Missing	7 (0.3)
LVSI N (%)		
	Absent	1499 (72.4)
	Focal	131 (6.4)
	Substantial	318 (15.7)
	Missing	111 (5.5)
Myometrial infiltration N (%)		
	< 50%	1248 (61.5)
	> 50%	734 (36.1)
	Missing	48 (2.4)
Cervical stromal infiltration N (%)		
	Yes	163 (8.0)
	No	1793 (88.3)
	Missing	74 (3.7)
Surgical approach N (%)		
	MIS	1436 (70.8)
	Robotic	442 (21.8)
	Open	150 (7.4)
Pts with positive SLNs N (%)		
	Yes	180 (8.9)
	No	1797 (88.5)
	N.A	53 (2.6)
Dye used N (%)		
	ICG	1599 (78.8)
	Tc^{99m} +blue dye	163 (8.0)
	Blue dye alone	164 (8.0)
	ICG + TC^{99m}	101 (5.0)
	Other combination	3 (0.2)
Type of nodal metastasis N (%)		
	ITC	59 (2.9)
	Micrometastasis (MM)	53 (2.6)
	Macrometastasis (MAC)	74 (3.7)
Adjuvant therapy N (%)		
	Yes	733 (36.1)
	No	1297 (63.9)

Legend. BMI: body mass index; FIGO: International Federation of Gynecology and Obstetrics; N: numbers; Pts: patients; IQR: interquartile range; MIS: minimally invasive surgery; LVSI: lymphovascular space invasion. SLN: sentinel lymph node; ICG: Indocyanine green; TC^{99m}: Technetium radiocolloid; ITC: Isolated tumor cells; NA: not available.

Results: We first obtained a ML-based model, based on clinical information collected, that can predict LVSI, OS and PFS with a high accuracy, ranging from 80% to 95% (Figure 1a). Furthermore, feature importance analysis for our three predicted variables has been carried on, as shown in figure 1b-c-d.



Conclusion/Implications: We introduce a ML-based model to improve EC recurrence risk prediction accuracy, that could enable an ultra-stratification of prognosis, opening up to precision oncology approaches in terms of prognosis, decision making-treatment and follow-up. Future perspectives will focus on addressing class imbalance to improve the detection of minority events and further investigating factors that may ease patients' re-stratification which are misclassified, by including tumor biomolecular background.

PR002 / #276

Topic: *AS01. Basic Sciences / AS01a. AI*

INTEGRATING ARTIFICIAL INTELLIGENCE (AI) INTO DIGITAL APPLICATIONS OF THE 2023 FIGO STAGING SYSTEM FOR ENDOMETRIAL CANCER CAN ENHANCE DIAGNOSTIC ACCURACY AND EFFICIENCY

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Introduction: In 2023, the International Federation of Gynecology and Obstetrics (FIGO) introduced a more complex staging system for endometrial cancer. We developed the Endometrial Cancer Staging Application (ECSA) to assist in staging according to the FIGO 2023 criteria. While the ECSA application improved staging accuracy compared to manual table lookups, it did not significantly reduce time demands for gynecologic oncologists. To overcome these limitations, we integrated artificial intelligence (AI) into the system, aiming to enhance accuracy and reduce the time required for staging.

Methods: We trained an AI model using 500 endometrial cancer pathology reports. We evaluated the performance of the AI-enhanced ECSA by comparing its accuracy and time efficiency against the original ECSA application with human input. A total of 48 gynecologic healthcare professionals participated in the study, completing two tests each: interpreting 10 pathology reports with the AI model and 10 using the original ECSA application.

Results: The 48 evaluators completed 96 tests, resulting in 960 pathology interpretation samples. The AI model achieved a mean accuracy score of 10/10, compared to 9.21/10 for the ECSA application ($p < 0.001$). The AI model significantly reduced the time required per interpretation, with an average of 9.64 seconds per report, compared to 89.7 seconds with the ECSA application ($p < 0.001$).

Conclusion/Implications: Integrating AI into the ECSA application significantly enhanced both accuracy and efficiency in staging endometrial cancer, regardless of the user's clinical experience. This hybrid digital-AI approach sets a new benchmark for precise and time-efficient cancer staging.

PR003 / #650

Topic: *AS01. Basic Sciences / AS01a. AI*

DEVELOPMENT OF AN ON-DEVICE AI MODEL FOR CERVICAL CANCER SCREENING USING COLPOSCOPY IMAGES

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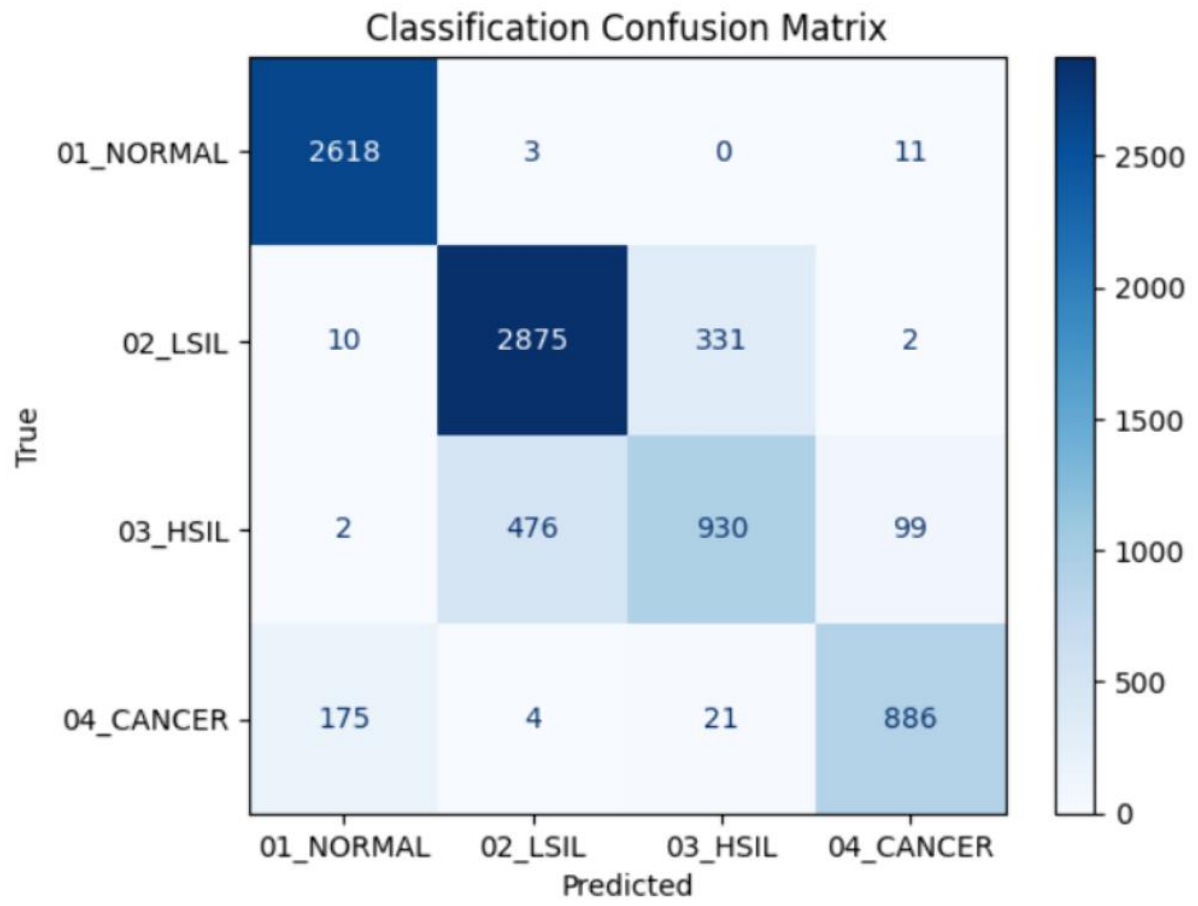
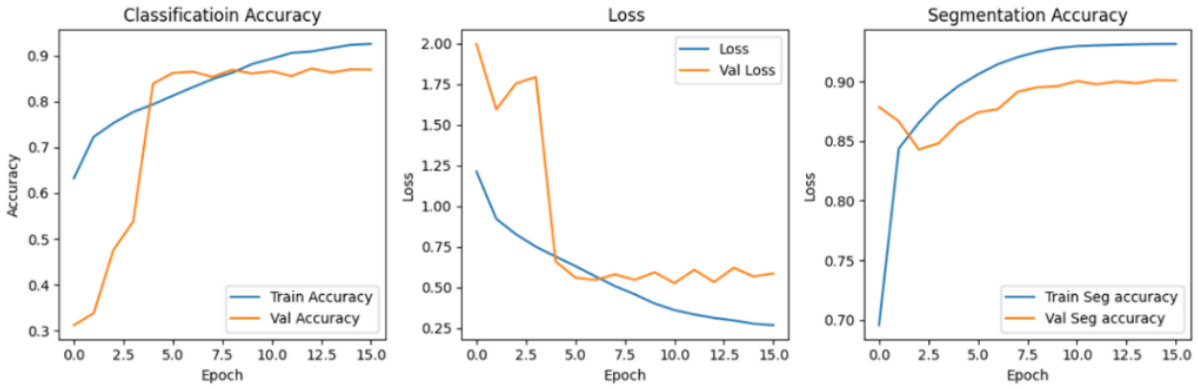
Introduction: Early cervical cancer diagnosis is challenging in low-resource settings due to limited expert access. We developed a lightweight AI model using MobileNetV3 to classify and segment colposcopy images into four categories. The model enables real-time, offline diagnosis, improving accessibility and reliability of screening in resource-limited settings.

Methods: We designed a structured deep learning model using MobileNetV3 Large as an encoder for embedding in a mobile app and used high-resolution colposcopy images (1024×1024) as input. The data consisted of four classes: NORMAL, LSIL, HSIL, and CANCER, and each image contained polygon-based lesion area coordinates to create a segmentation mask using the polygon coordinate values. The model was trained on the segmented dataset for training and validation, and the pixel-wise accuracy was used as the evaluation metric. A confusion matrix was also used to visualize the model's class-wise prediction results.

Results: The model showed high accuracy on both training and validation data, with classification accuracy above 0.86 and segmentation accuracy above 0.89 for validation. However, for the HSIL and CANCER categories, we observed that the predicted masks only partially reflected the actual lesions. Even though the prediction mask only predicted a part of the actual lesions, we could see that the model responded effectively to the lesion detection.





Conclusion/Implications: The MobileNetV3 Large-based segmentation and classification AI model proposed in this study has shown potential to assist experts in cervical cancer screening. In the future, we plan to extend the study with the goal of improving sensitivity to finer lesions.

PR004 / #793

Topic: *AS01. Basic Sciences / AS01a. AI*

CT-BASED RADIOMICS AND MACHINE LEARNING FOR PREDICTING SURGICAL OUTCOME AND SURVIVAL IN HIGH GRADE SEROUS OVARIAN CANCER

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Introduction: High-grade serous carcinoma is the most common and aggressive subtype among ovarian cancer types, with a 5-year survival rate usually less than 50%[1], [2]. Recent advancements in radiomics and machine learning have enabled the extraction of quantitative imaging features from computed tomography (CT) scans, offering a non-invasive method for outcome prediction[3], [4]. This study explores the potential of CT-based radiomics combined with a Support Vector Machine (SVM) classifier to predict surgical outcomes and survival in stage III-IV high-grade serous ovarian cancer patients

Methods: Sixty-four high-grade serous ovarian cancer with stages III-IV patients from The Cancer Genome Atlas data were conducted on a retrospective analysis. Nine regions of invasive implants in the upper abdomen on the pre-treatment contrast-enhanced CT scans were manually segmented. A comprehensive set of radiomic features were extracted to establish the prediction models by SVM, optimized via 5-fold cross-validation.

Results: The models demonstrated the quantitative radiomics from diaphragm implants had a strong predictive performance for surgical outcome prediction as a single predictor or in combination with other features, achieving a mean accuracy of 0.77±0.008 with an Area Under the Curve (AUC) of 0.75±0.07, and a mean accuracy of 0.77±0.007 with an AUC of 0.75±0.07, respectively. The prognostic models could predict 3-year survival with AUC = 0.74±0.12, whereas the ability to predict Progression-Free Survival was limited (AUC = 0.62±0.20).

Conclusion/Implications: These findings suggest that CT-derived radiomics integrated with machine learning can serve as a prognostic tool for high-grade serous ovarian cancer. Bigger data and external validation are needed to confirm clinical utility.

PR005 / #933

Topic: *AS01. Basic Sciences / AS01a. AI*

MULTICOHORT DEVELOPMENT AND VALIDATION OF A REPRODUCIBLE VAGINAL MICROBIOME MODEL FOR ENDOMETRIAL CANCER DETECTION

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Introduction: The vaginal microbiome has emerged as a promising source of non-invasive biomarkers for gynecologic cancers, but inconsistent bioinformatics processing and limited reproducibility have impeded clinical translation. Endometrial Cancer (EC) is the second most common gynecological cancer in the world, yet there are no established EC screening programs. A vaginal microbiome signature derived from minimally invasive testing could assist in early detection.

Methods: We conducted a multicohort analysis using publicly available 16S rRNA gene sequencing data from five studies (N=265) to assess the predictive value of vaginal microbiome profiles for EC. After benchmarking bioinformatics pipelines to ensure the reproducibility of commonly reported microbiome metrics, such as alpha/beta diversity and differentially abundant taxonomic features, we selected a robust preprocessing approach. We then developed an ensemble classifier that integrates microbial features with individual characteristics, including age, body mass index, and ethnicity.

Results: The combined model accurately identified all individuals with EC in an independent validation cohort, achieving an area under receiver operating characteristic curve of 0.93 (95% CI: 0.71–0.93), negative predictive value of 1.0 (95% CI: 0.59–1.0), and sensitivity of 1.0 (95% CI: 0.74–1.0). Alpha diversity was sensitive to processing pipelines, while beta diversity patterns were driven by patient factors than disease status. Certain taxa, including *Peptoniphilus*, showed consistent enrichment in EC cases across all five studies.

Conclusion/Implications: This work demonstrates the feasibility of using vaginal microbiome data, coupled with individual characteristics, for EC screening and risk stratification. Our open-source model and rigorous evaluation support its utility as a reproducible, non-invasive tool in precision oncology.

PR006 / #242

Topic: *AS01. Basic Sciences / AS01a. AI*

ASSESSING LARGE LANGUAGE MODEL ACCURACY FOR RESIDENT EDUCATION IN GYNECOLOGIC ONCOLOGY AND OBSTETRICS AND GYNECOLOGY (OBGYN)

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Introduction: While large language models (LLMs) are increasingly utilized in medical education, their accuracy at the resident level remains largely unproven. If validated, these tools could meaningfully enhance resident learning, particularly in areas that require advanced clinical understanding, such as gynecologic oncology. This study assessed LLMs performance on Council on Resident Education in Obstetrics and Gynecology (CREOG) practice questions, a national assessment of resident's knowledge in gynecologic oncology and OBGYN.

Methods: Fifty multiple-choice questions were randomly selected from each of the six PROLOG books (gynecologic oncology, gynecologic surgery, obstetrics, reproductive endocrinology, urogynecology, and office medicine) totaling 300 CREOG-style practice questions. ChatGPT-4, Claude 3.5, and Llama 3.1 answered these questions verbatim over six independent sessions to prevent memory bias. Responses were graded and averaged. Statistical analysis included Kruskal-Wallis tests, pairwise comparisons, and Cohen's d.

Results: The 2024 average resident CREOG performance was 66% (PGY-1: 60%, PGY-2: 65%, PGY-3: 69%, PGY4: 71%). Mean LLM accuracy is detailed in Table 1. A significant difference was observed between the four groups (ChatGPT-4, Claude 3.5, Llama 3.1, resident performance) across all topics ($p<0.01$). Notably, Claude 3.5 outperformed ChatGPT-4 ($p=0.01$, $d=2.22$; 95% CI: -0.58–3.85) and Llama 3.1 ($p<0.01$, $d=3.58$; 95% CI: 1.50–5.65) on gynecologic oncology questions, matching PGY-4 accuracy. Detailed comparisons are presented in Table 2.

Conclusion/Implications: Claude 3.5 outperformed ChatGPT-4 and Llama 3.1, matching senior resident accuracy in select topics such as gynecologic oncology. Although LLMs may not replace clinical education, their accuracy supports their role as supplemental tools. Further refinement and study of LLMs integration into OBGYN education are needed.

Table 1: Mean accuracy (%) across all OBGYN topics (95% CI)

	ChatGPT 4.1	Claude 3.5	Llama 3.1
Gynecology oncology	63 (58.5 – 66.8)	70 (67.3 – 72.7)	60 (56.3 – 63.0)
Gynecology surgery	74 (69.8 – 77.5)	77 (71.9 – 82.1)	69 (63.1 – 74.9)
Obstetrics	74 (69.4 – 78.0)	79 (76.5 – 80.8)	64 (61.9 – 66.8)
REI	63 (58.1 – 68.6)	77 (73.8 – 79.5)	65 (60.2 – 70.4)
Urogynecology	61 (55.8 – 65.6)	69 (63.9 – 74.1)	59 (53.8 – 63.6)
Office medicine	86 (83.6 – 87.7)	84 (82.1 – 85.9)	86 (84.1 – 87.2)
All sections	70 (67.5 – 72.4)	76 (75.2 – 76.6)	67 (66.2 – 68.0)

OBGYN = Obstetrics and Gynecology

REI = Reproductive endocrinology and infertility

Table 2: Pairwise and effect size comparisons among LLM performance on OBGYN topics

Section	Claude 3.5 vs. ChatGPT-4	Llama 3.1 vs. ChatGPT-4	Llama 3.1 vs. Claude 3.5
Gynecologic oncology	p = 0.01 d = +2.22 (95% CI: 0.58 - 3.85)	p = 0.99 d = –0.84 (95% CI: -2.18 - 0.51)	p = <0.01 d = –3.58 (95% CI: -5.65 - -1.50)
Gynecologic surgery	p = 1.00 d = +0.77 (95% CI: -0.56 - 2.11)	p = 0.66 d = –0.98 (95% CI: -2.34 - 0.38)	p = 0.06 d = –1.52 (95% CI: -2.98 - -0.06)
Obstetrics	p = 0.11 d = +1.55 (95% CI: 0.08 - 3.01)	p = <0.01 d = –2.81 (95% CI: -4.62 - -0.99)	p = <0.01 d = –6.50 (95% CI: -9.72 - -3.27)
Reproductive endocrinology	p = <0.01 d = +3.31 (95% CI: 1.33 - 5.28)	p = 1.00 d = +0.41 (95% CI: -0.89 – 1.71)	p = <0.01 d = –2.88 (95% CI: -4.72 - -1.05)
Urogynecology	p = 0.04 d = +1.75 (95% CI: 0.24 - 3.26)	p = 1.00 d = –0.43 (95% CI: -1.73 – 0.87)	p = 0.01 d = -2.17 (95% CI: -3.79 - -0.55)
Office management	p = 1.00 d = –0.89 (95% CI: -2.23 - 0.46)	p = 1.00 d = 0.00 (95% CI: -1.29 – 1.29)	p = 1.00 d = +1.01 (95% CI: -0.36 – 2.37)
All sections	p = <0.01 d = +3.44 (95% CI: 1.42 - 5.47)	p = 0.34 d = –1.60 (95% CI: -- 3.08 - -0.12)	p = <0.01 d = –11.06 (95% CI - 16.26 - -5.87)

OBGYN = Obstetrics and Gynecology

REI = Reproductive endocrinology and infertility

Cohen's d >0.8 indicates substantial differences

Positive d value (+) indicates that the first listed LLM outperformed the second listed LLM

Negative d value (-) indicates that the second listed LLM outperformed the first listed LLM

PR007 / #60

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

TNS4 GENE AS A POTENTIAL BIOMARKER IN OVARIAN CANCER PROGRESSION AND RECURRENCE

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Introduction: Ovarian cancer (OC) is a highly lethal gynecological malignancy characterized by elevated mortality rates and a significant lack of reliable molecular markers. Protein-coding genes (mRNAs) play a pivotal role in the development and progression of OC. Identifying differentially expressed mRNAs that can serve as biomarkers is essential for early diagnosis and for understanding the underlying molecular mechanisms of tumor advancement.This study aimed to identify key protein-coding genes involved in OC progression and recurrence.

Methods: We analyzed 422 RNA expression profiles from The Cancer Genome Atlas database using R programming, focusing on recurrent ovarian cancer samples in comparison to primary tumors. The analysis included an assessment of the correlation between these mRNAs and overall survival, utilizing the survival package in R. Additionally, in-silico analyses via the UALCAN database were conducted to investigate mRNA expression variations across different OC stages.

Results: Our investigation identified 17 differentially expressed mRNAs, including TNS4 and CST6, which significantly influenced survival outcomes for OC patients. Notably, TNS4 was found to be overexpressed in stage IV OC patients compared to stage II patients, as indicated by the UALCAN database. Furthermore, miR-150-3p and certain lncRNAs were identified as direct regulators of TNS4 expression.

Conclusion/Implications: In conclusion, this study proposes TNS4 as a potential biomarker for monitoring OC progression, highlighting the need for further functional analyses to validate its role as a biomarker in ovarian cancer.

PR008 / #275

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

THE PROMYELOCYTIC LEUKEMIA PROTEIN/NLRP3 AXIS IN OBESITY-DRIVEN INFLAMMATION AND ENDOMETRIAL CARCINOMA DEVELOPMENT

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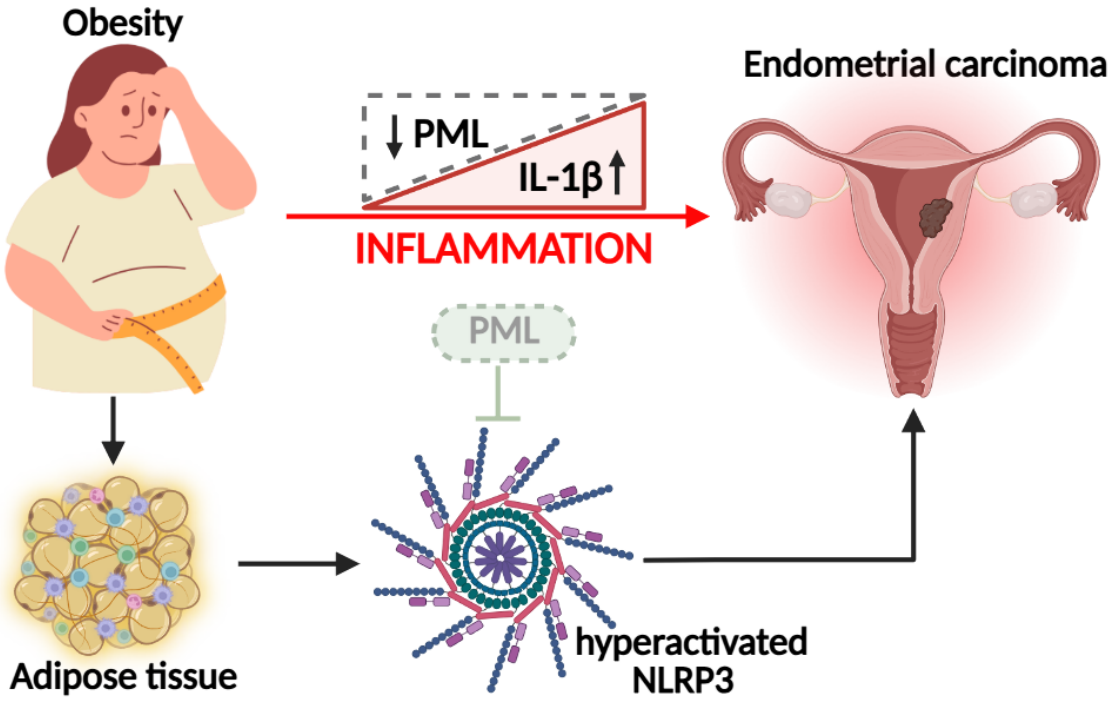
Introduction: Endometrial carcinoma (EC) is the most common gynecological cancer in industrialized countries and is strongly linked to obesity. Adipose tissue (AT), the body's largest endocrine organ, plays a central role in obesity-induced inflammation, which promotes diseases like cancer. The NLRP3 inflammasome, regulated by Promyelocytic Leukemia Protein (PML), mediates this inflammatory state. We hypothesize that the PML/NLRP3 axis exacerbates obesity-related inflammation, promoting EC.

Methods: We conducted a prospective study (CE-AVEC EM1164-2020_201/2019/Sper/AOUFe) on patients undergoing gynecological surgery for EC or other benign conditions, without other inflammatory or tumoral diseases, at S. Anna Hospital, Ferrara. AT samples were collected to assess inflammation and PML expression. Murine models (WT and PML KO) on standard or high-fat diets further explored mechanistic aspects.

Results: We enrolled 186 patients with body mass index (BMI) ranging from normal to obese categories, divided into tumoral and non-tumoral groups. Significant inverse correlations were found between obesity and PML loss ($p = 0.0018$) and between PML expression and AT inflammation ($p = 0.0035$). A direct association was observed between obesity and increased AT inflammation (NLRP3-dependent) ($p = 0.043$). These results were corroborated in murine models, supporting the hypothesis of a PML-loss-dependent, NLRP3-driven pro-inflammatory environment in obesity that predisposes individuals to EC.

Conclusion/Implications:



The PML/NLRP3 axis plays a crucial role in obesity-related inflammation and EC development. Our findings show that AT accumulation leads to NLRP3 hyperactivation and PML degradation, exacerbating inflammation and increasing EC risk. This pathway represents a promising target for pharmacological interventions to address obesity-related issues and reduce cancer risk.

PR009 / #591

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

ORGANOID MODELS ENABLE PRECLINICAL CHEMOTHERAPY SCREENING FOR MUCINOUS OVARIAN CARCINOMA

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Introduction: Mucinous ovarian carcinoma (MOC) is a rare cancer type with little evidence to support any one chemotherapy regimen. MOC has few validated preclinical models available.

Methods: We have developed patient-derived MOC organoid and xenograft models, which were characterised by immunohistochemistry, whole genome sequencing and transcriptomics. Organoids were tested against 11 individual and 8 combinations of chemotherapeutic agents, quantified using CellTiter-Glo, Hoechst staining and brightfield imaging.

Results: After optimising the conditions, 17 MOC organoid lines were generated from primary tumours representing early (n=12) and advanced (n=2) stage, and recurrent (n=3) disease, as well as expansile (n=10) and infiltrative (n=6) growth patterns. Seven PDX models were successful via sub-cutaneous and/or orthotopic injection. Characterised models showed excellent concordance with primary tumours for immunohistochemical markers (CK7, CK20, PAX8). Driver mutation tumour-organoid concordance was 92% (range 50-100%). Copy number concordance was 89% (57-100%). Models recapitulated frequent events including mutations in *KRAS* and *TP53* and *ERBB2* amplification. Organoid models diverged from primary tumours by transcriptomic profiles, but the differences likely derived from stromal and immune cells. Chemotherapy testing verified the expected resistance to platinum-based chemotherapies as single agents. Variable responses were seen for other agents, with the best responses to topoisomerase inhibitors, gemcitabine and doxorubicin. No significant gene expression differences were found between sensitive and resistant lines. No combinations were consistently synergistic.

Conclusion/Implications: We have developed a large collection of preclinical models for MOC. The models show responses to treatments that could be used clinically instead of platinum-chemotherapy that has little impact on patient outcomes.

PR010 / #465

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

PHARMACOKINETIC COMPARISON OF CISPLATIN ADMINISTRATION VIA HIPEC AND INTRAVENOUS INFUSION IN A PORCINE MODEL

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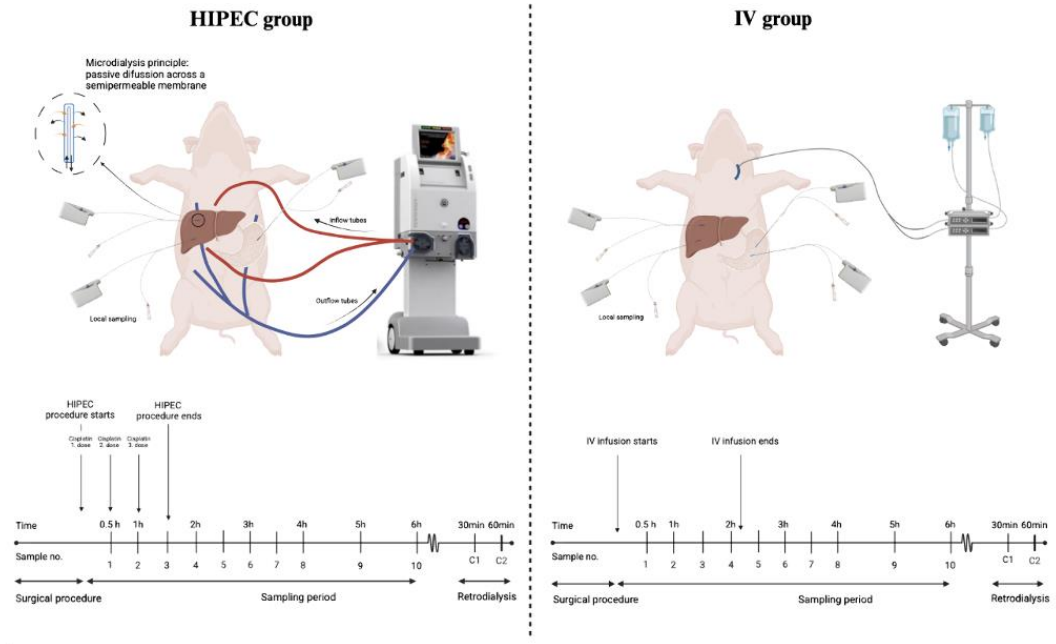
Introduction: Epithelial ovarian cancer often presents with extensive peritoneal dissemination. Hyperthermic intraperitoneal chemotherapy (HIPEC) aims to enhance locoregional drug delivery; however, the pharmacokinetic differences between HIPEC and intravenous (IV) cisplatin administration remain poorly characterized. This study compared local tissue and systemic cisplatin concentrations after HIPEC or IV infusion in a porcine model.

Methods: Sixteen pigs were assigned to receive cisplatin via HIPEC following cytoreductive surgery (n=8) or IV infusion (n=8) at equivalent doses (100 mg/m^2). Microdialysis catheters were placed just below the surface of the liver, rectum, stomach, and peritoneum. Free cisplatin concentrations in plasma and dialysates were quantified using UHPLC-MS/MS. Pharmacokinetic parameters were analyzed using non-linear mixed-effects modeling.



Results: HIPEC resulted in significantly higher cisplatin C_{max} and $AUC_{0\text{-last}}$ in the peritoneum compared to other tissues and plasma. The peritoneal-to-plasma AUC_0-last ratio was 8.7 for HIPEC vs. 1.8 for IV infusion (ratio: 4.92, 95% CI: 3.12–7.78, $p<0.001$). Compared to IV infusion, HIPEC achieved a significantly higher peritoneal C_{max}, while peritoneal $AUC_{0\text{-last}}$ was comparable between groups. In contrast, IV infusion resulted in significantly higher plasma and non-peritoneal tissue exposure. Plasma $AUC_{0\text{-last}}$ was 4.7-fold higher following IV administration compared to HIPEC (95%-CI: 3.0–7.3, $p<0.001$).

Conclusion/Implications: Both HIPEC and IV administration achieved measurable cisplatin delivery to the peritoneum, with HIPEC reaching significantly higher maximal concentrations. While HIPEC concentrates cisplatin within the peritoneum, IV administration leads to broader distribution across abdominal tissues and significantly higher systemic exposure. These findings suggest that HIPEC may optimize local cytotoxicity while minimizing systemic toxicity in the treatment of peritoneal metastases.

PR011 / #580

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

AN INTEGRATED MULTI-OMICS ANALYSIS PREDICTS NEOADJUVANT CHEMOTHERAPY RESPONSE IN ADVANCED OVARIAN CANCER

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Introduction: Neoadjuvant chemotherapy (NACT) is one of standard therapeutic paradigm in high-grade serous ovarian carcinoma (HGSOC), but lack of efficient biomarker to predict the response before therapeutic decision-making.

Methods: 102 pre- and post- NACT tumor samples were subjected to genomics and RNA sequencing, including 13 paired specimens performed proteomics and metabolomics additionally. Chemotherapy Response Score (CRS) of pretreated tumor was evaluated. The immune state was verified by multiplex IHC, the oxidative phosphorylation (OXPHOS) hyperactivity was validated by Seahorse assays, mitochondrial membrane potential (MMP) detection in cell and patient-derived organoids (PDOs). The synergized efficacy of complex inhibitor with carboplatin was conducted in cells and xenografts.

Results: NACT induced significant immune remodeling, characterized by enhanced infiltration of B cells and NK cells, alongside activation of BCR /TCR, antigen presentation signaling pathways, while suppressing mitochondrial energy metabolism. Notably, nab-paclitaxel outperformed conventional paclitaxel in activating B cell-mediated humoral immunity. Transcriptomic stratification delineated ： CRS-high tumors exhibited immune-active phenotypes, marked by B cell infiltration and complement cascade activation, validated by mIHC and proteomic， CRS-low tumors displayed OXPHOS hyperactivity, with elevated complex I-V gene expression and mitochondrial metabolomic rewiring. Functional studies in carboplatin-resistant cell lines and PDOs confirmed complex I-V overexpression and hyperactive mitochondrial respiration capability. Pharmacological inhibition of complex I resensitized resistant cells to carboplatin, concomitant with suppressed ATP production, MMP collapse. In vivo, IACS-010759 synergized with carboplatin in OXPHOS-high xenografts.

Conclusion/Implications: This study revealed B cells infiltration and OXPHOS as biomarkers of response to NACT, also establishes mitochondrial complex I inhibition as a novel strategy to reverse platinum resistance in HGSOCs.

PR012 / #757

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

COMPARING SCARHRD AND HRDETECT: WHOLE-GENOME SEQUENCING–BASED REFINEMENT OF HRD CLASSIFICATION IN OVARIAN CANCER

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Introduction: To evaluate the clinical utility of whole-genome sequencing (WGS)-based HRDetect in identifying homologous recombination deficiency (HRD) and its association with clinical outcomes in high-grade serous ovarian cancer (HGSOC) patients treated with PARP inhibitors (PARPi).

Methods: This single-center study analyzed patients with stage III-IV high-grade serous ovarian or fallopian tube cancer treated at Asan Medical Center from 2017 to 2022. Participants underwent surgery followed by adjuvant or neoadjuvant chemotherapy and maintenance therapy with olaparib or niraparib. Patients were stratified into four groups by BRCA status and progression-free survival (PFS). Retrospective data collection included demographics, treatments, and outcomes. Tumor and normal samples underwent WGS, and HRD was evaluated using HRDetect and Myriad genomic instability scores (GIS). Genomic features, including mutational signatures, structural variations, and copy number alterations, were analyzed.

Results: Among 37 patients, ScarHRD identified 30 as HRD-positive and 7 as HRD-negative, while HRDetect classified 17 as HRD-positive and 20 as HRD-negative. Discordant cases arose only when HRDetect labeled tumors as HRD-negative but ScarHRD classified them as HRD-positive. Tumors with key HRD-associated features, such as SBS3, ID6, RS3, and RS5, were consistently identified as HRD-positive by both methods. In contrast, tumors lacking SBS3 and displaying ambiguous characteristics, including age-related mutational signatures or microsatellite instability, were classified as HRD-negative by HRDetect, even when ScarHRD deemed some of these HRD-positive.

Conclusion/Implications: This study suggests that WGS-based HRDetect can complement existing HRD assessment methods in HGSOC, offering a more comprehensive approach to identifying patients for targeted therapies.

PR013 / #1104

Topic: *AS01. Basic Sciences / AS01b. Basic & Translational Science*

THE PROGNOSTIC IMPORTANCE OF TUMOUR INFILTRATING LYMPHOCYTES IN VULVA CANCER

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Introduction: To evaluate the density and location of tumour-infiltrating lymphocytes (TILs) in vulva cancer, determine their relationship with clinicopathological factors, and assess their prognostic significance.

Methods: Immunohistochemistry was performed on formalin-fixed paraffin-embedded tissue sections to identify CD3+ (pan-T cells), CD4+ (helper T cells), and CD8+ (cytotoxic T cells) lymphocytes from 97 patients. Digital image analysis using QuPath software quantified T-cell densities in the invasive margin and tumour core regions. Statistical analysis included Wilcoxon signed-rank test, chi-square test, Kaplan-Meier survival analysis, and Cox proportional hazards modeling.

Results: T-cell densities were significantly higher in the invasive margin compared to the tumour core for all three T-cell subsets ($p<0.001$). HIV-positive patients exhibited significantly higher CD8+ T-cell densities in both the invasive margin (1084 vs. 620 cells/mm^2, $p=0.005$) and tumour core (364 vs. 185 cells/mm^2, $p=0.003$) compared to HIV-negative patients. Patients with high CD8+ T-cell density in the invasive margin had significantly better 5-year overall survival (58.3% vs. 22.0%, $p=0.002$) and progression-free survival (46.6% vs. 20.1%, $p=0.039$) than those with low density. High CD8+ T-cell density in the invasive margin remained an independent prognostic factor for overall survival in HIV-negative patients (HR=0.51, 95% CI=0.25-0.97, $p=0.04$) but not in HIV-positive patients (HR=0.47, 95% CI=0.09-2.49, $p=0.38$).

Conclusion/Implications: High densities of CD8+ and CD4+ TILs in the invasive margin are associated with improved survival in vulva cancer patients. HIV infection appears to modify the prognostic significance of CD8+ T-cells, potentially through mechanisms such as T-cell exhaustion.

PR014 / #501

Topic: *AS01. Basic Sciences / AS01c. Genetics & Epidemiology*

GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONISTS AND RISK REDUCTION OF OBESITY-ASSOCIATED CANCER IN OBESE NON-DIABETIC WOMEN

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Introduction: Obesity is a known risk factor for thirteen malignancies, including multiple gynecologic and gastrointestinal cancers. GLP-1 receptor agonists (GLP-1 RAs) are FDA-approved for weight management and are increasingly used in the treatment of obesity, even among non-diabetic individuals. We assessed whether GLP-1RAs, prescribed for weight loss, are associated with reduced incidence of obesity-associated cancers (OACs) in obese, non-diabetic women.

Methods: This retrospective cohort study used TriNetX, a nationwide multi-center database of 113 million U.S. patients, to identify obese (BMI ≥30 kg/m^2), non-diabetic women ≥18 years old without prior OAC diagnosis from December 2014 – April 2025. Women prescribed GLP-1RAs were propensity score-matched to those receiving diet or exercise counseling. Incident OACs were analyzed using Cox proportional hazard models and Kaplan-Meier estimates.

Results: The cohort included 205,029 women; 69,547 (33.9%) received GLP-1RAs, while 135,482 (66.1%) received diet or exercise consultation. GLP-1RA use was associated with significantly lower risk of endometrial cancer (EC) (HR 0.66, 95% CI 0.51–0.87) and ovarian cancer (OC) (HR 0.50, 95% CI 0.33–0.75). The strongest protective effect was in women with BMI 30–39.9 kg/m^2 (EC: HR 0.50, CI 0.31–0.81; OC: HR 0.42, CI 0.22–0.81). Additional risk reductions were also noted for colorectal cancer (HR 0.64, CI 0.47–0.89), hepatocellular carcinoma (HR 0.35, CI 0.19–0.63), and multiple myeloma (HR 0.46, CI 0.27–0.80).

Figure 1. Risk of 13 Obesity Associated Cancers Among Obese Non-diabetic Women Receiving Glucagon-Like Peptide 1 Receptor Agonists (GLP-1RAs) vs. Those Receiving Diet or Exercise Consultation

	GLP-1RAs therapy No (%) (n=69,547)	Diet or exercise consultation No (%) (n=135,482)	HR (95% CI)
Postmenopausal Breast cancer (23,097)	248 (1.07)	313 (1.36)	1.019 (0.859-1.208)
Colorectal cancer (63,028)	57 (0.09)	114 (0.18)	0.643 (0.465-0.89)
Endometrial cancer (62,731)	86 (0.14)	158 (0.25)	0.663 (0.507-0.866)
Kidney cancer (63,970)	43 (0.07)	75 (0.12)	0.773 (0.527-1.134)
Pancreatic cancer (64,083)	22 (0.03)	42 (0.07)	0.736 (0.433-1.252)
Thyroid cancer (61,392)	71 (0.12)	91 (0.15)	1.033 (0.752-1.42)
Ovarian cancer (62,938)	31 (0.05)	84 (0.13)	0.495 (0.325-0.753)
Multiple Myeloma (63,480)	18 (0.03)	55 (0.09)	0.462 (0.268-0.796)
Hepatocellular carcinoma (64,039)	14 (0.02)	53 (0.08)	0.345 (0.19-0.627)
Esophageal cancer (63,677)	≤ 10 (NC)	11 (0.02)	0.224 (0.049-1.028)
Stomach cancer (61,715)	12 (0.02)	29 (0.05)	0.506 (0.256-1.003)
Gallbladder cancer (62,536)	≤ 10 (NC)	≤ 10 (NC)	0.956 (0.252-3.621)
Meningioma (61,546)	≤ 10 (NC)	12 (0.02)	0.687 (0.267-1.769)

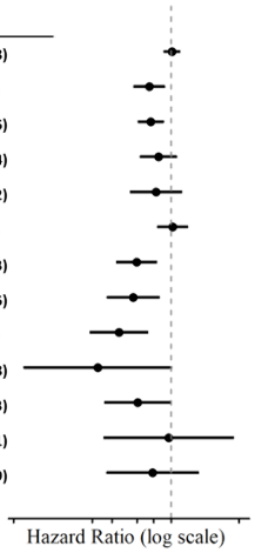


Figure 2a. Cumulative Incidences of Gynecologic Obesity-Associated Cancers Among Patients Receiving Glucagon-Like Peptide 1 Receptor Agonists (GLP-1RAs) vs Those Receiving exercise or diet consultation during 4-Year Follow-Up

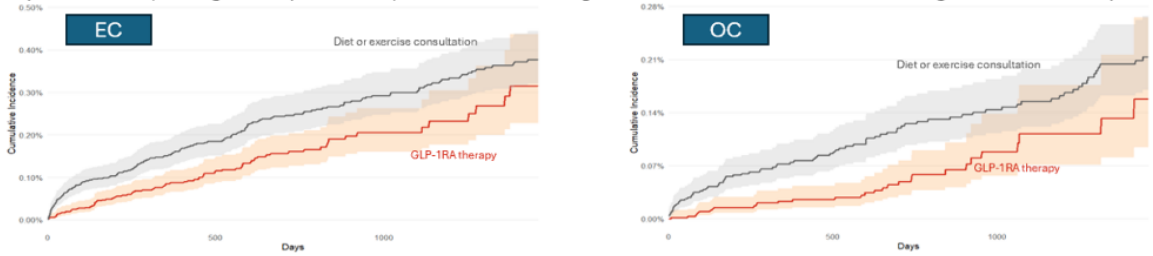
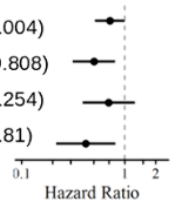


Figure 2b. Risk Stratification of Gynecologic Obesity-Associated Cancers according to BMI

		GLP-1RAs therapy No (%) (n=69,547)	Diet or exercise consultation No (%) (n=135,482)	HR (95% CI)
Endometrial cancer	BMI ≥40 (27,265)	56 (0.21)	98 (0.36)	0.718 (0.513-1.004)
	BMI 30-39.9 (33,866)	25 (0.07)	59 (0.17)	0.503 (0.313, 0.808)
Ovarian cancer	BMI ≥40 (26,750)	18 (0.07)	34 (0.13)	0.699 (0.389-1.254)
	BMI 30-39.9 (33,964)	12 (0.04)	40 (0.12)	0.419 (0.217-0.81)



Conclusion/Implications: In this large real-world cohort, GLP-1RA therapy was associated with significantly reduced risk of multiple obesity-associated cancers in obese, non-diabetic women. These findings support further investigation into GLP-1RAs as a potential cancer prevention strategy in high-risk populations.

PR015 / #866

Topic: *AS01. Basic Sciences / AS01c. Genetics & Epidemiology*

AN EVOLUTIONARY ANALYSIS OF RELAPSED HIGH GRADE SEROUS CARCINOMA

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Introduction: Approximately 70% of ovarian cancers recur within 2 years post-treatment. While molecular features of primary tumors are well-documented, the evolutionary biology of recurrent disease and therapy-driven molecular adaptations remain poorly characterized.

Methods: Two cohorts were analyzed: Cohort 1 (n=175 high-grade serous ovarian carcinomas [HGSOC]) included untreated (n=48), post-neoadjuvant chemotherapy (n=55), recurrence after first-line therapy (n=47), and PARPi-treated recurrent tumors (n=25; fresh tissues) for transcriptome sequencing. Cohort 2(n=33 paired FFPE samples) compared treatment-naïve primary tumors with post-first-line recurrent tumors using transcriptome and whole-exome sequencing.

Results: It revealed that, regardless of maintenance therapy, recurrent tumors exhibited activation of nearly all oncogenic pathways compared to debulking surgery samples, including cholesterol , fatty acid metabolism, hypoxia, ROS, and oxidative phosphorylation. Key pathways such as oncogenic PI3K, KRAS, EMT (epithelial-mesenchymal transition), complement signaling, and angiogenesis were significantly activated.In Cohort 1, analysis across four treatment stages demonstrated progressively enhanced tumor immunosuppression with cumulative therapies, characterized by increased infiltration of immunosuppressive cells (e.g., M2 macrophages) and activation of immunosuppressive pathways such as PD-L1. EMT and angiogenesis pathways were also progressively activated. Intriguingly, tumors recurring after PARPi maintenance therapy versus observation alone showed downregulation of metabolic pathways (e.g., cholesterol metabolism) despite activation of homologous recombination repair, PI3K, and immunosuppressive pathways.Whole-exome sequencing of Cohort 2 identified recurrent copy number gains on chromosomes 1q, 2p, 3q, 7q, 10, 14, and 20 in recurrent samples. Additionally, unique mutations in recurrent tumors were enriched in metabolism-related pathways.

Conclusion/Implications: This study elucidates treatment-driven evolutionary trajectories in ovarian cancer and provides novel therapeutic targets for recurrent disease.

PR016 / #490

Topic: *AS02. Clinical Disciplines / AS02a. Diagnostics & Imaging*

COMPARATIVE EVALUATION OF GA 68 FAPI-PET SCAN OVER CONVENTIONAL IMAGING FOR PERITONEAL CARCINOMATOSIS DETECTION IN OVARIAN CARCINOMA: A PROSPECTIVE MULTIMODAL IMAGING STUDY

Esha Shanbhag[1], Sp Somashekhar[2], Ashwin Rajgopal[2], Rohit Kumar C[2], Vijay Ahuja[1], Prathap Hj[3], Vishwanath Joshi[4]
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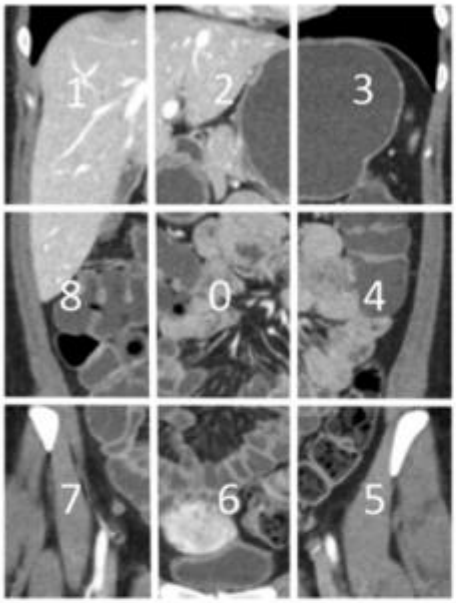
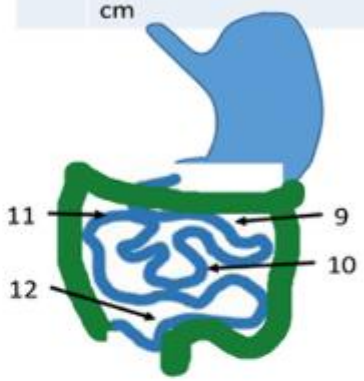
Introduction: To assess and compare the diagnostic performance of Fibroblast Activation Protein Inhibitor Positron Emission Tomography (FAPI-PET) imaging with conventional imaging modality- contrast enhanced CT in the evaluation of peritoneal carcinomatosis in patients of ovarian carcinoma

Methods: This prospective study evaluated 100 ovarian carcinoma patients using FAPI-PET/CT and CECT, assessing peritoneal carcinomatosis via PCI across 13 regions grouped into four areas(Figure 1) Sensitivity, specificity, and accuracy of each modality were evaluated against intraoperative assessment as the gold standard. The study also assessed the impact of FAPI-PET on staging accuracy and surgical planning.

FIGURE 1: PERITONEAL CANCER INDEX



Lesion Size Score	
0	No Tumor
1	Tumors up to 0.5 cm
2	Tumors up to 5 cm
3	Tumors greater than 5 cm



QUADRANTS FOR PCI ASSESSMENT

QUADRANT	REGIONS	QUADRANTS IN OUR STUDY
1	RIGHT UPPER	UPPER ABDOMEN
2	EPIGASTRIUM	
3	LEFT UPPER	
0	CENTRAL	CENTRAL
4	LEFT FLANK	
8	RIGHT FLANK	
5	LEFT LOWER	PELVIS
6	PELVIS	
7	RIGHT LOWER	
9	UPPER JEJUNUM	SMALL BOWEL
10	LOWER JEJUNUM	
11	UPPER ILEUM	
12	LOWER ILEUM	

Results: Among 100 patients (mean age 56.4), 58 had primary ovarian cancer (65% stage IIIc) and 42 had recurrent carcinoma. FAPI-PET showed a higher mean PCI (14.14) than CECT (10.8) and demonstrated a stronger correlation with surgical findings (r = 0.829 vs. 0.805), highlighting its superior accuracy in assessing peritoneal disease. Diagnostic performance for detecting peritoneal implants is shown in Figure 2, with

FAPI-PET showing superior sensitivity, specificity, and accuracy, particularly in the upper abdomen, small bowel serosa, and mesentery.

SENSITIVITY, SPECIFICITY AND ACCURACY WITH RESPECT TO PCI-SURGERY

	CECT			FAPI-PET		
	SENSITIVITY(%)	SPECIFICITY(%)	ACCURACY(%)	SENSITIVITY(%)	SPECIFICITY(%)	ACCURACY(%)
TOTAL PCI (ALL QUADRANT)	54	96	78	**81.82**	**89.29**	**86**
UPPER ABDOMEN	23.53	87.88	66	76.47	84.85	**82**
CENTRAL	52.63	96.77	80	68.42	93.55	84
SMALL BOWEL	31.25	100	78	**50**	100	**84**
PELVIS	63.64	85.71	76	59.09	89.29	76

We also assessed the diagnostic performance of CECT, FAPI-PET, and the Fagotti score in predicting surgical operability. FAPI-PET (PCI > 15) had a positive predictive value (PPV) of 85.7%, similar to the Fagotti score (score > 8) at 86.7%, and superior to CECT (PPV 71%).

Conclusion/Implications: FAPI-PET offers a highly accurate, non-invasive, and practical alternative for assessing peritoneal carcinomatosis, with clear advantages over conventional imaging and invasive scoring systems, making it a valuable tool for staging and surgical decision-making

PR017 / #880

Topic: *AS02. Clinical Disciplines / AS02c. Pathology, Cytology & Disease Pathogenesis*

EVALUATION OF IMMUNE CELLS FROM PATIENT-DERIVED TUMOR TISSUE AND PERITONEAL WASHING CYTOLOGY IN CORRELATION WITH IMMUNOHISTOCHEMICAL MARKERS IN ENDOMETRIAL CANCER

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Introduction: This study aimed to evaluate the characteristics and clinical significance of tumor-infiltrating lymphocytes (TILs) in endometrial cancer using fresh tumor tissue and peritoneal washing cytology. Additionally, it sought to explore the correlation between TILs and immunohistochemical markers in endometrial cancer.

Methods: TILs were isolated from endometrial tumor tissue and peritoneal washing samples obtained during surgery with informed consent. Flow cytometry was used to analyze immune cell composition. The study examined the associations between clinicopathologic features, various immunohistochemical markers (LVSI, PD-L1, ER, P53, HER2, MLH1, MSH2, MSH6, PMS2, and MSI status), and the status of tumor-infiltrating immune cells, including $CD3^{-}CD19^{+}$ B cells, $CD3^{-}CD16^{+}CD56^{+}$ NK cells, $CD4^{+}CD25^{+}$ regulatory T cells (Tregs), and $CD3^{+}CD8^{+}$ cytotoxic T cells.

Results: 23 samples from patients with endometrial cancer were analyzed. $CD3^{-}CD19^{+}$ B cells were significantly increased in the LVSI-positive group and decreased in the ER-positive group ($p < 0.05$, respectively). $CD3^{-}CD16^{+}CD56^{+}$ NK cells were elevated in the dMMR group, while $CD4^{+}CD25^{+}$ Tregs were decreased in ER-positive tumors ($p < 0.05$, respectively). $CD3^{+}CD8^{+}$ cytotoxic T cells were decreased in the HER2-positive group and increased in the dMMR group. No significant associations were found with other immunohistochemical markers.

Conclusion/Implications: This study suggests that tumor-infiltrating immune cells identified from fresh tumor tissue and peritoneal washing cytology may reflect the molecular and clinical characteristics of endometrial cancer. Further studies with larger sample sizes and correlation with oncologic outcomes are needed to validate these findings.

PR018 / #819

Topic: *AS02. Clinical Disciplines / AS02c. Pathology, Cytology & Disease Pathogenesis*

HPV TYPE-SHIFT IN 2 COHORTS OF WOMEN WITH HISTOLOGICALLY CONFIRMED CIN II/III SYNCHRONOUS WITH A DECADE OF ARV USE IN SOUTH AFRICA

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Introduction: Data in Africa is lacking on the relationship between oncogenic human papillomavirus (HPV) types and cervical intraepithelial neoplasia (CIN). Here we investigate changes in HPV-type prevalence over time.

Methods: In 2 cohorts of women, tested around 2012 and 2022, with CIN II/III confirmed on histology, we report and compare prevalence of HPV types 16, 18, 31, 33, 35, 45, 52, and 58 (“Top 8”).

Results: Cohort 1: 270 women, of which 225 (83.3%) were HIV-positive. Cohort 2: 133 women, 103 (77.4%) were HIV-positive. The mean age (37.0 vs 39.8 years) and prevalence of one or more “Top 8” HPV types (85.9% vs 84.2%; p=0.65) between the cohorts was similar. Among women with single HPV infections the most prevalent types in cohort 1 was HPV 16 (10.7%), 18 (6.7%), 35 (5.5%), 52 (4.1%), 58 (3.7%), 31 (3.3%), 45 (2.6%), 33 (2.2%), and cohort 2, HPV 16 (12.8%), 45 (9.0%), 58 (8.3%), 18 (7.5%), 35 (7.5%), 31 (6.8%), 33 (3.8%), 52 (3.8%). Significantly more women in cohort 2 had only a single-type infection (38% vs 59%, $p<0.05$). An infection with HPV 16 and/or 18 was significantly less in cohort 2 compared to cohort 1 ($p<0.05$).

Conclusion/Implications: In women with CIN II/III, HPV 16 remains most prevalent over time. In women with single-type infections, HPV 45 and 58 appears to become more prevalent than HPV 18 and 35, compared to historical data. These findings are synchronous with widespread ARV roll-out and may demonstrate the effect of immune reconstitution.

PR019 / #938

Topic: *AS02. Clinical Disciplines / AS02d. Radiation Oncology*

PRACTICE-CHANGING OUTCOMES FROM BRACHYTHERAPY CHART ROUNDS IN A FOREMOST CANCER CENTER IN NIGERIA.

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Introduction: The NSIA-LUTH Cancer Center stands as Nigeria's first center and national referral hub for 3D image-guided CT-based brachytherapy specifically for gynecological cancers. For over three years, it has handled an average of 244 gynecological cancer cases annually, and a total of 255 brachytherapy cases. The center is committed to standardizing practices and optimizing treatment quality and safety.

Methods: In collaboration with Weill Cornell Medicine (New York, USA), we established monthly structured brachytherapy chart rounds to enhance quality and consistency in treatment. These sessions facilitate peer reviews, dosimetry audits, and protocol standardization. So far, we have held 11 sessions with an average of 90 attendees, including radiation oncologists, anesthetists, medical physicists, and oncology nurses. Cases were reviewed, discussions documented, and consensus recommendations implemented in patient care.

Results: Some key practice-changing outcomes include: - Implementation of an improved checklist to minimize omissions. - Enhanced bowel preparation protocols, requiring mandatory bowel enemas for all patients. - Cervical stump measurement in subtotal hysterectomy cases to select appropriate applicators. - Pre-brachy MRI image uploads to improve contouring accuracy. - Establishing external beam radiotherapy (EBRT) doses of 45Gy/25# for stages IA–IIA and 50Gy/28# for stages IIB–IVA, with brachytherapy doses of 7Gy X 4# instead of 8Gy X 3#, aiming for a total dose of 80–90Gy to HRCTV D90 as per center protocol.

Conclusion/Implications: The Brachytherapy Chart Rounds have improved treatment standardization and multidisciplinary care integration, resulting in better clinical practice. Sustaining this collaborative forum is vital for maintaining clinical excellence and safety in our high-volume brachytherapy practice.

PR021 / #558

Topic: *AS02. Clinical Disciplines / AS02d. Radiation Oncology*

OUTCOMES OF CERVICAL CANCER TREATED WITH CT BASED IMAGE GUIDED ADAPTIVE BRACHYTHERAPY USING IBS-GEC ESTRO-ABS RECOMMENDATIONS: UPDATE FROM THE RETRO-LACER DATABASE

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Introduction: MR-IGABT is the gold standard for cervical cancer brachytherapy, but access is limited, especially in resource constrained settings. As an alternative, consensus recommendations for CT based Image Guided Adaptive Brachytherapy (CT-IGABT) for cervical cancer were published by IBS-GEC ESTRO-ABS. However, real-world clinical outcomes of patients treated based on these recommendations is sparce.

Methods: Retro-LACER is a mono-institutional database of cervical cancer patients treated with CT-IGABT using IBS-GEC ESTRO-ABS recommendations between August 2020 and July 2023. All consecutive patients with cervical cancer (FIGO Stage IB3 to IVA) who received curative (chemo) radiation at our institution were enrolled. Details related to dosimetry, recurrences and toxicities were analysed retrospectively. Current study reports updated outcomes with longer follow up.

Results: Out of 318 patients screened, 73 were excluded as per eligibility criteria. Disease and treatment characteristics of 245 patients included in this analysis are presented in Table 1.

Table 1: Disease and Treatment Characteristics (n = 245)			
Age (Median, IQR), Years	53 (47-61)		
Imaging	CT, Chest, Abdomen and Pelvis	245 (100%)	
	MRI, Pelvis	73 (29.8%)	
FIGO (2018) stage	IB3-IIA2	10 (4.1%)	
	IIB	68 (27.8%)	
	IIIA	6 (2.4%)	
	IIIB	20 (8.2%)	
	IIIC1	109 (44.5%)	
	IIIC2	31 (12.7%)	
	IVA	1 (0.4%)	
TNM	T1b1	1 (0.4%)	
	T1b2	15 (6.1%)	
	T2a2	7 (2.9%)	
	T2b	159 (64.9%)	
	T3a	15 (6.1%)	
	T3b	47 (19.2%)	
	T4a	1 (0.4%)	
	N0	104 (42%)	
	N1	110 (45.3%)	
	N2	31 (12.7%)	
NACT (indication: nodal size ≥ 3cm)	6 (2.4%)		
EBRT	3DCRT (46 to 50 Gy)	163 (66.5%)	
	VMAT (45Gy)	82 (33.5%)	
	SIB to gross nodes > 1cm in SAD (55Gy)	80 (32.6%)	
Concurrent Cisplatin (weekly @ 40mg/sq.m)	0	23 (9.4%)	
	≤3	21 (8.6%)	
	4	74 (30.2%)	
	5	127 (51.8%)	
BT (response) category	I	126 (51.4%)	
	II	106 (43.3%)	
	III	8 (3.3%)	
	Missing	5 (2%)	
BT Environment	Basic CT Environment (CT/MR at Diagnosis and CT at BT)	158 (64.5%)	
	Advanced CT Environment (Addition of either pre-BT MRI or Transrectal Ultrasound to Basic CT environment)	87 (35.5%)	
BT Technique	ICA	119 (48.6%)	
	ICA+IS	126 (51.4%)	
OTT (median and IQR), weeks	8 (7-9)		
No of BT Applications	1	84 (34.3%)	
	2	159 (64.9%)	
	3	2 (0.8%)	
No of BT Fractions	2	1 (0.4%)	
	3	105 (42.9%)	
	4	138 (56.3%)	
	5	1 (0.4%)	
Dosimetry (Median and IQR)	Overall (n = 245)	Basic CT Environment (n = 158)	Advanced CT Environment (n=87)
Volume, CTV_HR (cc)	31 (24-40)	30 (24-40)	33 (23-41)
D90, CTV_HR (Gy_{10} EQD2)	88 (85-92)	89 (85-93)	88 (85-91)
D98, CTV_HR (Gy_{10} EQD2)	79 (76-83)	80 (77-84)	78 (76-81)
D2cc, Bladder (Gy_3 EQD2)	89 (84-94)	89 (83-93)	91 (87-95)
D2cc, Rectum (Gy_3 EQD2)	68 (63-73)	68 (64-73)	67 (62-72)
D2cc, Sigmoid (Gy_3 EQD2)	67 (62-72)	68 (62-74)	65 (60-70)

At a median follow up of 34 months, treatment failure was observed in 30 patients (12.2%). Patterns of relapse are presented in Figure 1. Estimated local relapse-free survival at 2-years and 3-years are 91% and 84.5%, loco-regional relapse-free survival, 88.1% and 82%, and overall survival 92.4% and 87.1% respectively. Severe late GI and GU morbidity (CTCAEv5 ≥ Grade 3) was observed in 20 (8.2%) and 1 (0.4%), respectively.

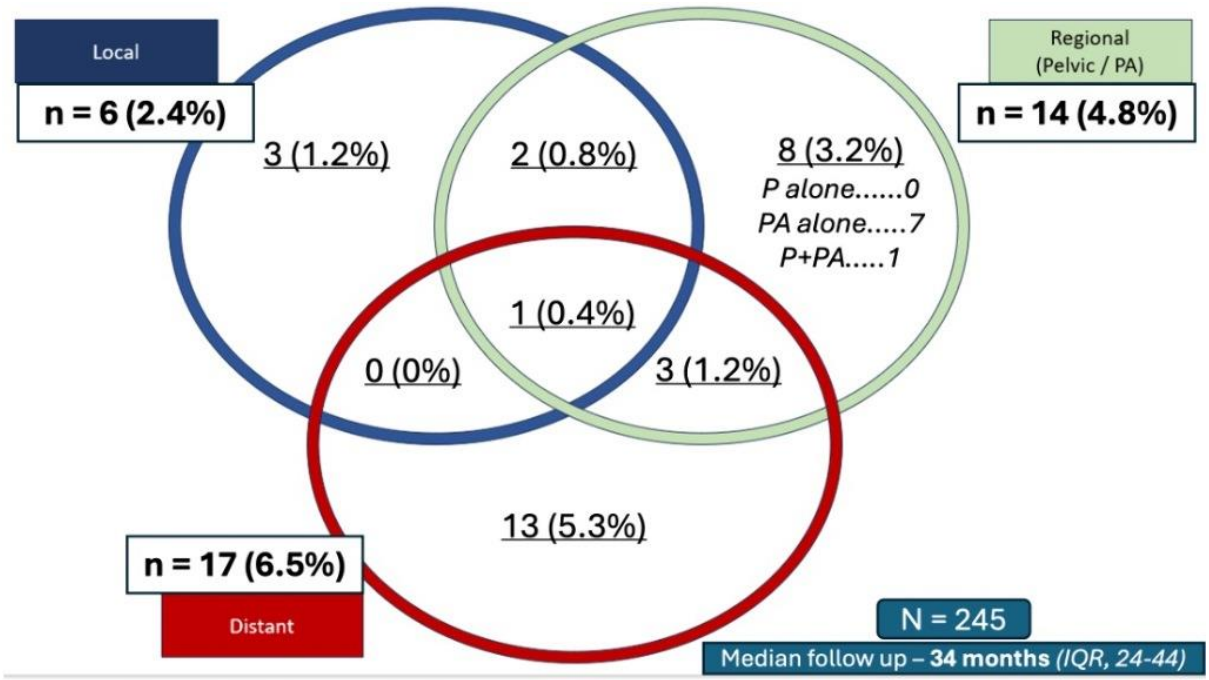

Figure 1: Patterns of Relapse after CT-IGABT: Local, Regional and Distant

Conclusion/Implications: Clinical outcomes of cervical cancer treated systematically with CT-IGABT are acceptable in terms of disease control and severe late morbidity, even with longer follow-up. Prospective multicentric evaluation of CT-IGABT is essential for wider acceptance as an alternative to MR-IGABT.

PR022 / #783

Topic: *AS02. Clinical Disciplines / AS02d. Radiation Oncology*

THE IMPACT OF RADIOTHERAPY EFFECTS ON QUALITY OF LIFE IN GYNAECOLOGICAL CANCER PATIENTS

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Introduction: With improved cancer survivorship, understanding the impact of radiotherapy (RT) effects on QoL is increasingly pertinent. This prospective single-institution study evaluates the impact of RT acute and late effects on QoL in gynaecological cancer patients.

Methods: Patients with potentially curable gynaecological cancer who underwent RT between April 2013 and May 2017 were included. Instruments used were EORTC QLQ-C30, EN24 and CX24 for QoL and RT-related toxicities were graded using RTOG criteria. Patients were categorized into high (RTOG score ≥1) and no toxicity (score = 0) groups. Data was collected at pre-treatment, last week of RT, 6 weeks, 12, 24 and 36 months post-RT.

Results: 328 patients (median age 58) were included. 71.6% had uterine cancer. 82% underwent surgery and adjuvant RT; 12.5% underwent concurrent chemoradiotherapy. Overall, global QoL improved significantly from six weeks post-RT onwards compared to baseline. Peak incidence of acute ≥G1 toxicities (lower gastrointestinal (GI) (47.8%), urinary (27.3%), skin (22.1%) and upper GI (17.3%)) and impaired functioning occurred in the last week and 6weeks post-RT but most improved thereafter. RTOG late effects of limb oedema and vaginal stenosis were most common but only lymphoedema continued to be significantly worse in both EN24 and CX24 cohorts. Vaginal stenosis did not significantly impact on sexual/vaginal problems. Patients in the high toxicity group had lower QoL scores and slower recovery to baseline compared to no toxicity group.

Conclusion/Implications: RT is well tolerated with significantly improved global QoL compared to baseline. Symptoms peaked during the last week of RT but improved after 3 years apart from lymphoedema.

PR023 / #687

Topic: *AS02. Clinical Disciplines / AS02e. Surgical Techniques & Perioperative Management*

SURGICAL APPROACHES TO HYSTERECTOMY IN THE TREATMENT OF ENDOMETRIAL CANCER: A NETWORK META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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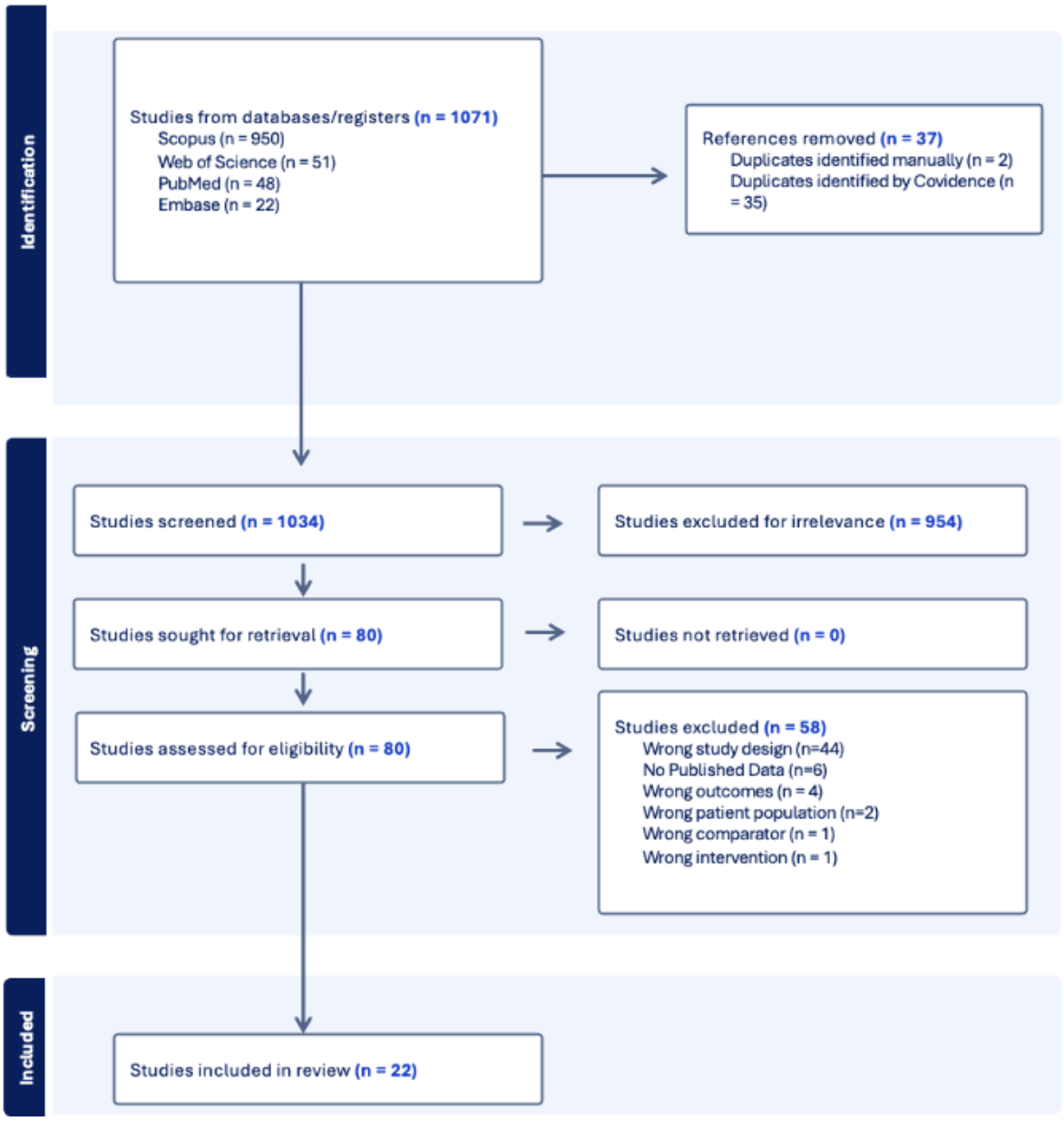
Introduction: Endometrial cancer is the fourth most common malignancy in women. While TAH was historically the standard surgical approach, randomized controlled trials (RCTs) have shown that minimally invasive techniques, particularly TLH and RA-TLH, offer comparable survival outcomes and improved perioperative metrics. Previous network meta-analyses have included observational data, limiting the strength of conclusions. This study conducts a network meta-analysis restricted to RCTs to evaluate the efficacy and safety of hysterectomy approaches for endometrial cancer.

Methods: A frequentist random effects network meta-analysis of RCTs was conducted to compare four surgical techniques. Systematic review of literature performed using PRISMA-NMA Guidelines (Figure 1). Primary outcomes were overall survival and recurrence-free survival, with treatment efficacy ranked using the surface under the cumulative ranking curve (SUCRA) scores. Secondary outcomes included estimated blood loss, operating time, conversion to laparotomy, and complication rates.

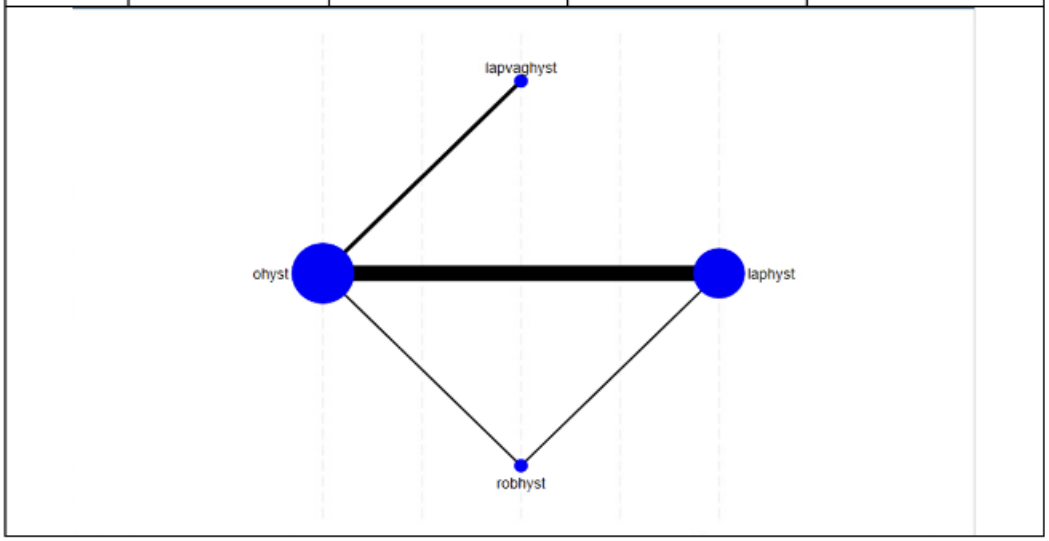
Figure 1: Prisma-2020 Flow Diagram of Randomized Controlled Trials Included in the Network Meta-Analysis



Results: Twenty-two RCTs with 6,621 participants were included. RA-TLH ranked highest in efficacy for overall survival (SUCRA 1.0) and showed improved recurrence-free survival compared to TAH (OR 2.18, 95% CI 1.01–4.73) as demontrated in Table 2. RA-TLH had a 93% probability of being the most effective approach for both overall and recurrence-free survival.

Table 2: League Table for Outcome of Overall Survival

	TLH	LAVH	TAH	RA-TLH
TLH	NA	1.30 (0.62 to 2.73)	2.37 [a] (1.64 to 3.43)	1.09 (0.51 to 2.33)
LAVH	0.77 (0.37 to 1.61)	NA	1.82 (0.92 to 3.60)	0.83 (0.30 to 2.31)
TAH	0.42 [a] (0.29 to 0.61)	0.55 (0.28 to 1.09)	NA	0.46 [a] (0.21 to 0.99)
RA-TLH	0.92 (0.43 to 1.97)	1.20 (0.43 to 3.22)	2.18 [a] (1.01 to 4.73)	NA



Overall survival was defined as the time from date of hysterectomy to death from any cause or last contact. Data are presented as odds ratios with 95% confidence intervals

TLH, Total Laparoscopic Hysterectomy; *LAVH*, Laparoscopic Assisted Vaginal Hysterectomy; *TAH,* Total Abdominal Hysterectomy; *RA-TLH*, Robotic Assisted Total Laparoscopic Hysterectomy

[a] indicates statistical significance

Conclusion/Implications: This is the first network meta-analysis using only RCTs to compare four hysterectomy approaches for endometrial cancer. RA-TLH appears most likely to optimize survival outcomes while maintaining a favorable safety profile.

PR024 / #464

Topic: *AS02. Clinical Disciplines / AS02e. Surgical Techniques & Perioperative Management*

A RETROSPECTIVE STUDY OF LYMPHADENECTOMY IN PATIENTS WITH ADVANCED OVARIAN CLEAR CELL CARCINOMA

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Introduction: While the LION trial reported no survival benefit from systematic pelvic and paraaortic lymphadenectomy in advanced ovarian cancer patients with clinically no lymph node metastasis, only 2% of these patients had clear cell carcinoma. The impact of systematic lymphadenectomy on clear cell carcinoma remains unclear.

Methods: We performed a retrospective analysis of 222 patients enrolled. This study was approved by the ethics committee of the National Cancer Center, National Research and Development Agency (approval number, No. 2024-005). Of the 222 patients, 185 were stage IIB to IVB with complete macroscopic resection and no enlarged lymph nodes preoperatively or intraoperatively. Patients were divided into two groups: Group A (lymphadenectomy) and Group B (no lymphadenectomy). Survival outcomes were analyzed using propensity score-based inverse probability weighting (IPW) to control potential confounding factors between the 2 groups, combined with the Kaplan–Meier method.

Results: Of the 185 patients, 107 (57.8%) underwent retroperitoneal lymphadenectomy, while 78(42.2%) did not. Lymph node metastasis was found in 27 (25.2%) of the 107 patients who underwent retroperitoneal lymphadenectomy by pathological examination. Group A had estimated 5-year PFS and OS rates of 49.5% and 67.4%, while Group B had rates of 37.2% and 48.7% (p=0.03, p=0.003). Lymphadenectomy was associated with a statistically significant survival benefit.

Conclusion/Implications: Systematic lymphadenectomy appears to improve survival in advanced ovarian clear cell carcinoma patients with negative lymph node metastasis

and complete resection. A prospective clinical trial is needed to confirm the present results.

PR025 / #751

Topic: *AS02. Clinical Disciplines / AS02e. Surgical Techniques & Perioperative Management*

VALIDATION OF PREOPERATIVE RADIOLOGY VERSUS LAPAROSCOPIC SCORING IN ASSESSMENT OF OVARIAN MALIGNANCY.

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Introduction: Ovarian cancer is often diagnosed at an advanced stage, making accurate preoperative assessment crucial to guide therapy and to avoid suboptimal surgery.

Methods: This study prospectively evaluated 60 women with suspected advanced ovarian malignancy (FIGO III–IV) to compare transvaginal ultrasound, contrast CT, and laparoscopic Fagotti scoring. All patients underwent comprehensive workup – history/exam, CA-125, chest CT, abdominal CT scan – followed by diagnostic laparoscopy with calculation of the Predictive Index Value (PIV) according to Fagotti's criteria. Patients deemed unresectable by laparoscopy (PIV exceeding established cutoffs) were referred to chemotherapy, while the remainder underwent cytoreductive surgery. We assessed each modality's sensitivity, specificity, predictive values and accuracy for detecting metastatic spread and predicting optimal cytoreduction (residual tumor ≤1 cm).

Results: Laparoscopy reliably identified extensive disease: 12/60 patients (20%) were spared futile laparotomy due to high Fagotti scores (≥8 in 11/12 cases). Of 48 operated patients, optimal cytoreduction was achieved in 35 (73%) and suboptimal in 13. CT imaging, while essential for staging, showed only moderate accuracy in our cohort as it missed many small peritoneal, omental and diaphragmatic implants. CT failed to detect all gastric serosal deposits that were seen laparoscopically. Using PIV cutoffs (>8 for primary, >4 for interval debulking) yielded high specificity (93–100%) and moderate sensitivity (56–67%) for predicting suboptimal debulking, with overall accuracy ~80–84%. Doppler ultrasound added non-invasive assessment of tumor vascularity and morphology.

Conclusion/Implications: laparoscopic Fagotti scoring most accurately predicted operability in ovarian cancer. Ultrasound remains a valuable, low-cost first-line tool, but should be complemented by laparoscopy when planning primary surgery.

PR027 / #477

Topic: *AS02. Clinical Disciplines / AS02e. Surgical Techniques & Perioperative Management*

PHASE II RANDOMIZED CLINICAL TRIAL OF AUTOLOGOUS FRESH OVARIAN TISSUE GRAFTING FOR THE PRESERVATION OF HORMONAL FUNCTION IN PATIENTS WITH LOCALLY ADVANCED CERVICAL CANCER.

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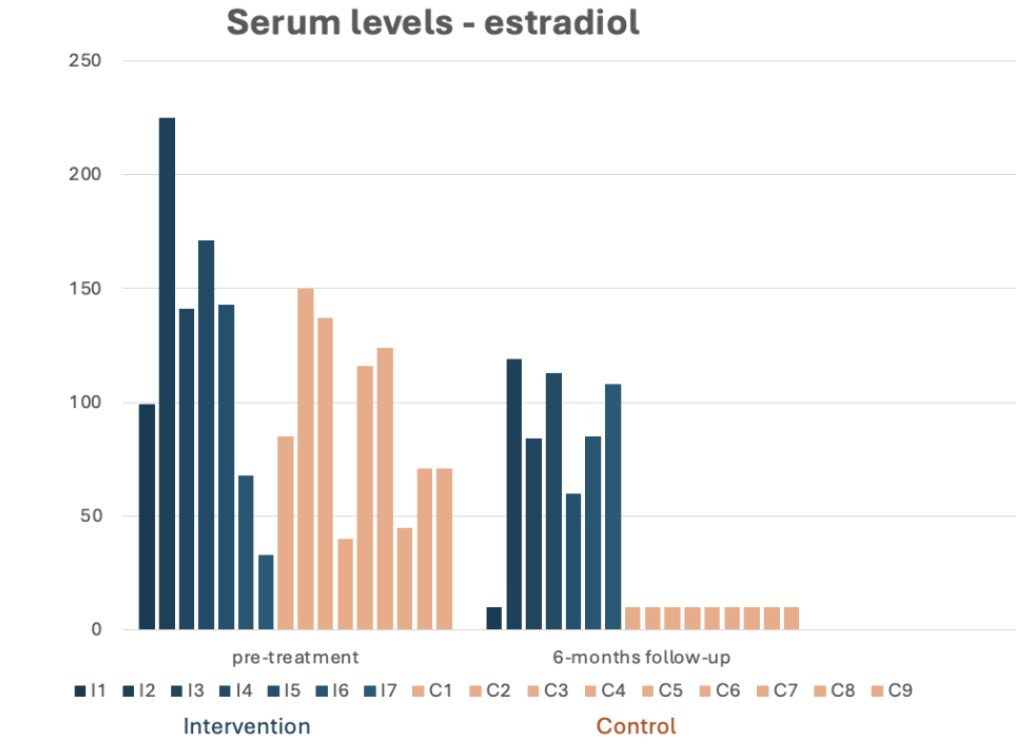
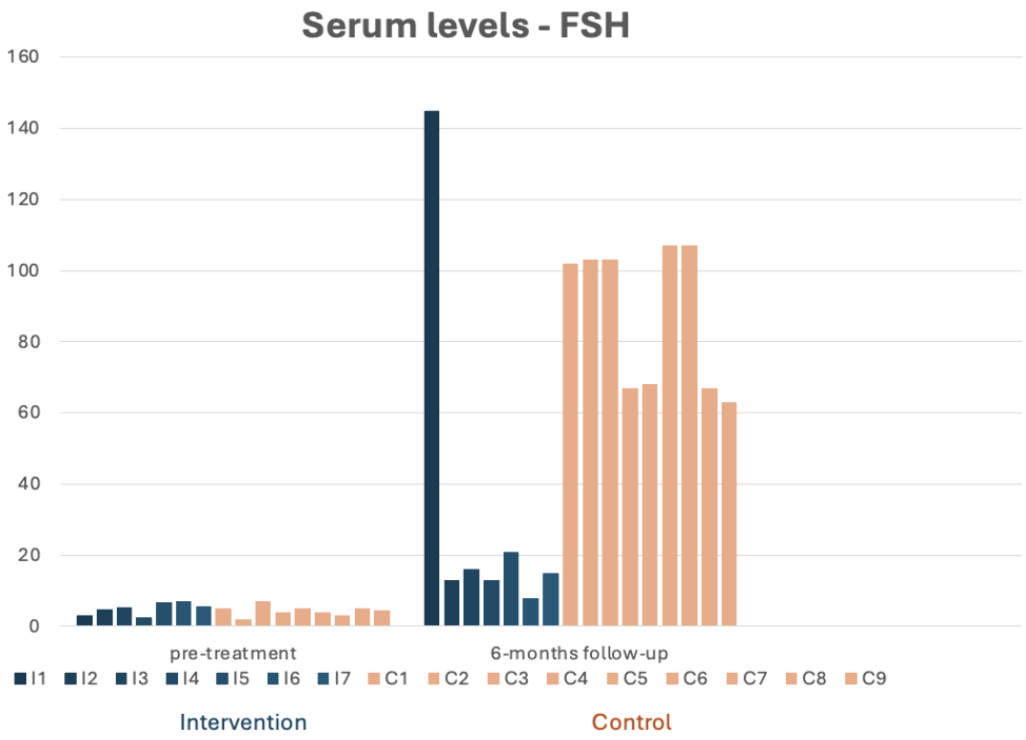
Introduction: Pelvic radiotherapy induces premature ovarian failure in young women. This trial aims to evaluate an alternative approach to prevent the adverse effects of hypoestrogenism.

Methods: The primary endpoint is to assess the endocrine function of fresh autologous ovarian tissue grafted into the subcutaneous tissue in patients undergoing pelvic radiotherapy.
The inclusion criteria were woman up 35 years old with locally advanced cervical cancer (FIGO IB3-IVA), eligible for pelvic radiotherapy. The participants were randomized in 2 arms: Intervention (n=10) – Fresh ovarian graft implant procedure; Controls (n=10) - No additional procedure.
The intervention consisted in surgical removal of one ovary by laparoscopy and implantation of ovarian fragments in subcutaneous tissue of inner side of the tight. Ovarian slices up to 2 mm of thickness were prepared in a sterile environment. Both arms underwent oncological treatment including pelvic radiotherapy. The randomization was performed by REDCap, following informed from all participants.

Results: Twenty-two patients were recruited (10 controls, 12 intervention group). Three patients of intervention group were excluded due to clinical conditions. Currently, there is a 6-months follow-up of 9 controls and 7 intervention patients. At the 6-month follow-up, all control subjects exhibited serum hormone levels consistent with postmenopausal status, whereas six out of seven (6/7) intervention subjects showed hormone levels indicative of the menacme period. The intervention group showed improved life quality and sexual scores.





Conclusion/Implications: Engrafting autologous fresh ovarian tissue in subcutaneous tissue appears to be an effective alternative to preserving hormonal function in patients requiring pelvic radiotherapy.

PR028 / #897

Topic: *AS02. Clinical Disciplines / AS02e. Surgical Techniques & Perioperative Management*

PELVIC EXENTERATION IN NON-OVARIAN GYNAECOLOGICAL CANCERS: RISK FACTORS FOR MAJOR MORBIDITY FROM A UK GYNAECOLOGICAL CANCER CENTRE

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Introduction: Pelvic exenteration (PE) is used in the management of gynaecological cancers where no other curative treatment options exist. 5-year survival up to 50% is reported, with clear resection margins being the most important predictor of survival. Major postoperative complications may occur in 35%, with 30-day mortality rates of 1-2%. We investigated outcomes following PE for non-ovarian gynaecological cancers, identifying factors associated with the risk of major complications.

Methods: We performed a retrospective observational study including all patients undergoing PE between February 2008 and May 2024 in our centre.

Results: 57 PEs were performed. 42 (73.7%) patients had received prior pelvic radiotherapy. 45 (78.9%) patients underwent total PE, 28 (49.1%) underwent translevator exenteration, 4 underwent laterally-extended endopelvic resection. Clavien Dindo grade ≥3 complications occurred in 40.5%, 1 patient died within 30-days of upper gastrointestinal haemorrhage. Involved resection margins were associated with increased risk of major complication (RR 2.44, 95% CI 1.05-5.67), as were prior radiotherapy (RR 2.18, 95% CI 0.66-7.22), and tumour size >4cm (RR 1.64, 95% CI 0.86-3.12). 5-year overall- and disease-free survival was 47% and 43%, respectively.

Conclusion/Implications: PE can achieve long-term survival in almost half of patients, but major postoperative morbidity is common. In this study, prior radiotherapy and tumours >4cm were risk factors for postoperative complications. Notably, translevator procedures were not associated with increased risk of morbidity. Given the survival benefit of achieving microscopically clear margins, the absence of added risk from translevator surgery supports the role of radical resection where necessary to optimise oncological outcomes.

PR029 / #979

Topic: *AS03. Patient-Centered Care / AS03a. Fertility & Pregnancy*

CONSERVATIVE TREATMENT OF CERVICAL CANCER: A LATIN AMERICA SINGLE CENTER EXPERIENCE

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Introduction: Cervical cancer most commonly affects patients aged 35–44 and disproportionately impacts women in low- and middle-income countries. Fertility-sparing surgery is a treatment option for selected patients with early-stage disease. Established approaches include cervical conization and radical trachelectomy via vaginal, open abdominal, or minimally invasive techniques. This study evaluates oncologic outcomes by surgical approach.

Methods: We retrospectively analyzed patients with FIGO 2018 stage IA1–IB2 cervical cancer who underwent fertility-sparing surgery between 2004 and 2024. A total of 92 patients received conization, vaginal radical trachelectomy (VRT), open abdominal radical trachelectomy (ART), or laparoscopic radical trachelectomy (LRT), all with lymph node assessment. We compared operative time, hospital stay, 30-day postoperative complications, recurrence rates, and disease-free survival (DFS).

Results: Median age was 33 years. Surgical distribution was: conization (15%), VRT (9%), ART (40%), and LRT (36%). LRT had the longest median operative time (288 minutes), and ART had the longest hospital stay (4 days). Postoperative complications occurred in 30% of trachelectomy cases and 14% of conization cases. Recurrences occurred in 1 conization, 3 ART, and 7 LRT patients. The LRT demonstrates a higher recurrence rate than all other approaches (21.2% vs. 8.1%, p = 0.078). Two- and five-year DFS was 89% (95% CI, 76–95%).

		Type of surgery, N (%)			
	Overall (n= 92)	Open radical trachelectomy (n= 37, 40%)	Laparoscopic radical trachelectomy (n= 33, 36%)	Vaginal trachelectomy (n= 8, 9%)	Conization (n= 14, 15%)
Age at surgery (years) - median (range)	33 (18-44)	31 (25-39)	33 (18-44)	34 (26-44)	34 (22-44)
Gravida, N (%)					
G0	57 (62%)	29 (78%)	16 (48%)	4 (50%)	8 (57%)
G1	35 (38%)	8 (22%)	17 (52%)	4 (50%)	6 (43%)
Stage, N (%)					
1=IA1	5 (5%)	1 (3%)	1 (3%)	0 (0%)	3 (21%)
2=IA2	16 (17%)	3 (8%)	6 (18%)	1 (13%)	6 (43%)
3=IB1	53 (58%)	19 (51%)	23 (70%)	7 (88%)	4 (29%)
4=IB2	17 (18%)	13 (35%)	3 (9%)	0 (0%)	1 (7%)
6=IIA1	1 (1%)	1 (3%)	0 (0%)	0 (0%)	0 (0%)
Histology, N (%)					
Escamoso	49 (53%)	19 (51%)	18 (55%)	5 (63%)	7 (50%)
Adenocarcinoma	37 (40%)	17 (46%)	11 (33%)	3 (38%)	6 (43%)
Adenoescamoso	6 (7%)	1 (3%)	4 (12%)	0 (0%)	1 (7%)
Grade, N (%)					
1	26 (28%)	11 (30%)	6 (18%)	3 (38%)	6 (43%)
2	38 (41%)	21 (57%)	11 (33%)	2 (25%)	4 (29%)
3	10 (11%)	3 (8%)	4 (12%)	1 (13%)	2 (14%)
Not available	18 (20%)	2 (5%)	12 (36%)	2 (25%)	2 (14%)
Stromal invasion, N (%)					
Superficial	39 (42%)	16 (43%)	12 (36%)	7 (88%)	4 (29%)
Deep	21 (23%)	11 (30%)	5 (15%)	1 (12%)	4 (29%)
Not available	30 (33%)	10 (27)	16 (48%)	0 (0%)	6 (42%)
LVSI, N (%)					
No	42 (46%)	9 (24%)	15 (45%)	5 (63%)	13 (93%)
Yes	32 (35%)	26 (70%)	5 (15%)	1 (13%)	0 (0%)
Not available	18 (20%)	2 (5%)	13 (39%)	2 (25%)	1 (7%)
Diagnostic procedure, N (%)					
Cervical biopsy	45 (49%)	22 (59%)	16 (48%)	5 (63%)	2 (14%)
Excisional procedure	47 (51%)	15 (41%)	17 (52%)	3 (38%)	12 (86%)
Estimated blood loss, N (%)					
<100	25 (27%)	10 (27%)	5 (15%)	3 (38%)	7 (50%)
100-249	18 (20%)	4 (11%)	10 (30%)	3 (38%)	1 (7%)
250-499	10 (11%)	2 (5%)	6 (18%)	0 (0%)	2 (14%)
500-749	1 (1%)	0 (0%)	1 (3%)	0 (0%)	0 (0%)
>750	1 (1%)	0 (0%)	0 (0%)	1 (13%)	0 (0%)
Not available	37 (40%)	21 (57%)	11 (33%)	1 (13%)	4 (29%)
Number of lymph nodes removed - median (range)	10 (2-35)	14 (3-35)	14 (2-26)	5 (2-10)	8 (2-28)
Operative time, min (range)	200 (26-415)	272 (155-415)	288 (180-362)	160 (75-240)	80 (26-168)
Hospital stay, days (range)	2 (0-8)	4 (1-6)	3 (1-8)	1 (1-3)	1 (0-2)
Complications within 30 days, N (%)	26 (28%)	12 (32%)	10 (30%)	2 (25%)	2 (14%)
Recurrent cases (%)	11 (12%)	3 (8%)	7 (21%)	0 (0%)	1 (7%)
Recurrence site					
Pelvis	4	2	2	0	0
Cervix/Vagina	4	1	2	0	1
Ovary	1	0	1	0	0
Abdomen	1	0	1	0	0
Carcinomatosis	1	0	1	0	0

Table 1: Patients characteristics and surgical outcomes

Conclusion/Implications: Fertility-sparing surgery for early-stage cervical cancer was associated with favorable oncologic outcomes. Conization showed minimal morbidity. LRT had a higher recurrence rate, and extrapelvic recurrences were observed only in this group, raising concerns about the oncologic safety of the laparoscopic approach.

PR030 / #846

Topic: *AS03. Patient-Centered Care / AS03b. Palliative, Symptomatic & Supportive Care*

PATTERNS AND OUTCOMES OF PALLIATIVE RADIOTHERAPY IN ADVANCED VULVAR CANCER IN A HIGH HIV-PREVALENCE SETTING

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Introduction: Patients with vulvar cancer in sub-Saharan Africa present with advanced, inoperable disease, compounded by high rates of HIV and HPV co-infection. Optimal palliative radiotherapy (RT) strategies in this setting remain inadequately defined. This study aimed to evaluate treatment patterns, clinical responses, and survival outcomes in patients receiving palliative RT for vulvar cancer in a high-burden, resource-limited environment.

Methods: We retrospectively analyzed 158 patients treated with palliative RT for vulvar cancer between 2018 and 2023 at a tertiary academic hospital in South Africa. Variables included age, HIV status, ECOG performance status, RT regimen, clinical response, and overall survival (OS). Kaplan-Meier estimates and Cox proportional hazards models were used for survival analysis.

Results: The median age was 44 years, with 91% of patients living with HIV. Most presented with FIGO stage IVA disease (46%) and poor performance status. The predominant RT regimen was a single 8 Gy fraction (71%), followed by 30 Gy in 10 fractions (15%). Partial response occurred in 60% of patients and was more frequent among those receiving multiple palliative RT courses ($p=0.005$). On multivariable analysis, 10-fraction RT was associated with improved OS (HR 0.13, $p<0.001$), while ECOG 4 was linked to poorer outcomes (HR 5.93, $p=0.004$). Notably, repeated single 8 Gy fractions offered similar outcomes to 30 Gy in 10 fractions. Median OS was 14.5 months, with 2-year OS at 38.9%.

Conclusion/Implications: In resource-limited settings, short-course, fractionated palliative RT – particularly when repeated – offers survival benefits for advanced vulvar cancer. Treatment should be tailored to performance status to maximize benefit.

PR031 / #907

Topic: *AS03. Patient-Centered Care / AS03c. Patient Advocacy & Survivorship*

INTRA-OPERATIVE COMPLICATIONS OF GYNECOLOGIC ONCOLOGY SURGERIES IN A TEACHING HOSPITAL IN SUB-SAHARAN AFRICA: EXPERIENCE FROM ADDIS ABABA, ETHIOPIA

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Introduction: Gynecologic oncology surgeries are high-risk procedures, particularly in low-resource, teaching hospital settings where surgical complexity intersects with the demands of surgical training. Understanding intra-operative complications in such contexts is essential for improving both surgical outcomes and educational frameworks.

Methods: To assess the frequency, types, and contributing factors of intra-operative complications during gynecologic oncology surgeries in a teaching hospital in Sub-Saharan Africa.A retrospective review was conducted on 796 gynecologic oncology surgeries performed between January 2021 and December 2023 at Saint Paul's Hospital Millennium Medical College (SPHMMC).

Results: Intraoperative complications occurred in 36.2% of cases. The most frequently reported issues were: Hemorrhage requiring transfusion: 58 cases (7.3%) Bowel injury: 25 cases (3.1%) Urinary tract injury: 192 cases (24.1%) — predominantly bladder injuries 181(22.7%), with ureteric injuries in 11 cases (1.4%) Vascular injury: 10 cases (1.3%) Intraoperative mortality: 3 cases (0.4%) Factors contributing include advanced-stage ovarian and cervical cancers, previous abdominal or pelvic surgeries, neoadjuvant chemotherapy, and dense intra-abdominal adhesions. Contributing system-level challenges included limited access to PET-CT imaging, which hindered comprehensive preoperative staging; scarce radiotherapy services, often necessitating primary surgical management of cervical cancer; and restricted use of minimally invasive techniques, especially for ovarian malignancies.

Conclusion/Implications: While the overall complication rate is within the range reported by other academic centers globally, a higher incidence of bladder injury was observed. These findings underscore the need for improved preoperative planning through better imaging access and enhanced intraoperative support through multidisciplinary collaboration. Investing in these areas could meaningfully improve both surgical safety and training outcomes in similar settings.

PR032 / #707

Topic: *AS03. Patient-Centered Care / AS03c. Patient Advocacy & Survivorship*

CULTURAL ADAPTATION OF SHARED DECISION TOOL FOR OVARIAN CANCER MAINTENANCE THERAPY

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Introduction: Shared decision-making (SDM) tools can facilitate complex and values laden issues and help patients and providers make more informed and personalized treatment decisions, However, language, cultural and health literacy differences can limit the benefits of such tools to broader populations. We aimed to produce a Spanish language, low literacy version SDM web-based tool "Maintenance Therapy: A Decision Aid for Women with Advanced Ovarian Cancer" through a systematic process of cultural adaptation.

Methods: Cultural and health literacy adaptation included: 1) simplifying text and adapting to a video (figure 1). 2) translating text into Spanish (linguistic translation) using a certified translation service, followed by verification of several bilingual study team members; 3) iterative cognitive testing with Spanish-speaking individuals with ovarian cancer (low education levels were preferentially recruited) was performed with text and images, and later by Spanish audio files.

Results: The order of text was switched to start with the key message and then provide detail rather than start with background information and lead to a conclusion. Several cultural issues surfaced, namely a need to balance providing accurate information with cultural preferences for more hopeful messaging. Changes to more representative images that accompanied videos were also made based on testing results. Those who underwent comparative testing with the same material presented in adapted video and original written web format found the video easier to understand.

Figure 1. Screenshots of tool (DecisionesCancerOvario.org)

Conclusion/Implications: Cultural adaptation is feasible and can improve accessibility and acceptability of complex medical information to facilitate informed and value laden health decisions.

PR033 / #649

Topic: *AS03. Patient-Centered Care / AS03c. Patient Advocacy & Survivorship*

ASSESSING QUALITY OF LIFE IN INDIAN WOMEN UNDERGOING TREATMENT FOR GYNECOLOGIC CANCERS: A PROSPECTIVE OBSERVATIONAL STUDY

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Introduction: Despite advances in treatment leading to improved survival, survivors face physical, psychological and social challenges affecting quality of life (QoL). This study evaluates QoL parameters pre and post therapy in women with gynecologic cancers.

Methods: Women over18 years with gynecologic malignancies and good ECOG performance were enrolled. Demographic, clinical, social, and treatment details were recorded. QoL parameters included psychological distress, sexual function, body image, supportive care needs, and health-related QoL; assessed at diagnosis and 3–6 months post-treatment using validated questionnaires (HADS, FSFI, Body Image Scale, CaSUN score and EORTC QLQ-C30).

Results: Sixty women were studied (mean age: 43.6±11.2 years; mean BMI: 22.5±4.8 kg/m^2; median ECOG: 1). Participants were literate (74.1%), from rural areas (68.3%), belonged to lower-middle socioeconomic class (86.7%), with partners being primary caregivers in 75%. The most common cancer type was ovarian (56.7%), followed by cervical (21.7%), uterine (13.3%), gestational trophoblastic neoplasia (6.7%), and vulvar cancer (1.7%). Advanced-stage disease (FIGO III–IV) was present in 68.3%, and 56.7% underwent multimodal treatment. Psychological scores improved post-treatment (10.9±3.1 to 8.9±2.6; $p<0.001$). However, sexual function scores declined (22±2.4 to 17.3±1.2; $p<0.001$), body image perception worsened (12.2±3.7 to 14.1±4.6; $p=0.001$) and supportive care needs increased (9.5±3.1 to 10.8±3.5; $p<0.001$). EORTC QLQ-C30 showed significant improvements in global health (53.7±6.6 to 71±6.6), functional status (55.3±3.4 to 62.5±3.3), and symptom burden (36.2±2.7 to 31.2±3.0) (all $p<0.001$).

Conclusion/Implications: Despite improvements in QoL and psychological scores; sexual health, body image, and unmet needs worsened post-treatment. A multidisciplinary survivorship approach is essential to address these domains and enhance long-term outcomes.

PR034 / #469

Topic: *AS03. Patient-Centered Care / AS03c. Patient Advocacy & Survivorship*

PRIORITIES OF WOMEN WITH OVARIAN CANCER: THE EVERY WOMAN STUDY LOW- AND MIDDLE-INCOME EDITION COHORT

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Introduction: The burden of ovarian cancer is growing in many low- and middle-income countries (LMICs), amidst varied human development levels and weak health system challenges. Yet the priorities of women with the disease for improved care and treatment are largely unknown. Our study aimed to explore this.

Methods: 2,446 women with ovarian cancer were recruited into the observational Every Woman Study through 82 hospitals across 22 countries in Africa, Latin America and Asia. Participants were within five years of their diagnosis and completed a survey including selection of three priorities from a pre-determined list of 11 categories.

Results: Development of a screening programme was top priority in all levels of human development index (HDI) except for very high (Table 1). Those calling for free access to diagnostics and treatments were more likely to have come from countries with a lower HDI level, were more likely to have paid themselves for their diagnosis, and to have suffered financial hardship. Those who wanted a reduction in delays in diagnosis were more likely to have experienced delays themselves, and those who want to raise awareness of symptoms were least likely to know anything about the disease.

Table 1: Priorities of women with ovarian cancer in 22 LMIC

Option	All (n=2415)
Development of a screening programme	1513 (62.7%)
Access to free diagnostic tests	1301 (53.9%)
Access to free treatments	822 (34%)
Raising awareness of symptoms	759 (31.4%)
Reducing delays in diagnosis	746 (30.9%)
Access to drugs approved in high-income settings	292 (12.1%)
Increase number of experienced surgeons	251 (10.4%)
Identification of women at risk due to family history	203 (8.4%)
Funding for research	137 (5.7%)
Access to clinical trials	65 (2.7%)
Other	62 (2.6%)

Conclusion/Implications: The findings show that avoiding financial hardship and getting a timely diagnosis were more important to women than accessing new drugs, clinical trials or genetic testing. These findings underscore the importance of patient engagement and will be useful to LMICs in their development of national cancer control plans and strategic policies for ovarian cancer care and treatment.

PR035 / #574

Topic: *AS03. Patient-Centered Care / AS03c. Patient Advocacy & Survivorship*

PATIENT PREFERENCES FOR OVARIAN CANCER MAINTENANCE THERAPY: A DISCRETE CHOICE EXPERIMENT

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Introduction: PARPi maintenance therapy can extend PFS in ovarian cancer (OC). Despite this, some eligible patients opt for active surveillance (AS) instead. This study quantified OC patient preferences for PARPi vs. AS and investigated the impact of oncologists' recommendations.

Methods: Canadians with OC eligible for PARPi completed a discrete choice experiment (DCE) survey (Nov 2024-Feb 2025). The DCE included 14 choices comparing AS and PARPi by safety, efficacy, dosing, duration, and blood monitoring attributes, alongside a hypothetical oncologist recommendation. Preferences were analyzed using conditional logistic regressions, stratified by PARPi experience, with results as odds ratios (ORs).

Results: Seventy-two participants completed the survey (mean age: 61 [SD 7] years); 65% had PARPi experience (33% niraparib, 32% olaparib). Both AS and PARPi groups preferred lower risks of serious side effects and higher likelihoods of delay to recurrence. Both groups preferred no tablets, finite treatment durations, and as-needed monitoring, with stronger preferences in the AS group (**Figure 1**). The PARPi group favoured 3-year over 2-year treatment (OR 1.54, $p<0.05$) and more frequent initial monitoring over 3-month intervals (OR 1.89, $p<0.05$). The PARPi group chose PARPi in 98%, 94%, and 80% of choices, and the AS group in 90%, 61%, and 14%, when the oncologist's recommendation was for, neutral, and against PARPi, respectively (**Figure 2**).

Figure 1: DCE results

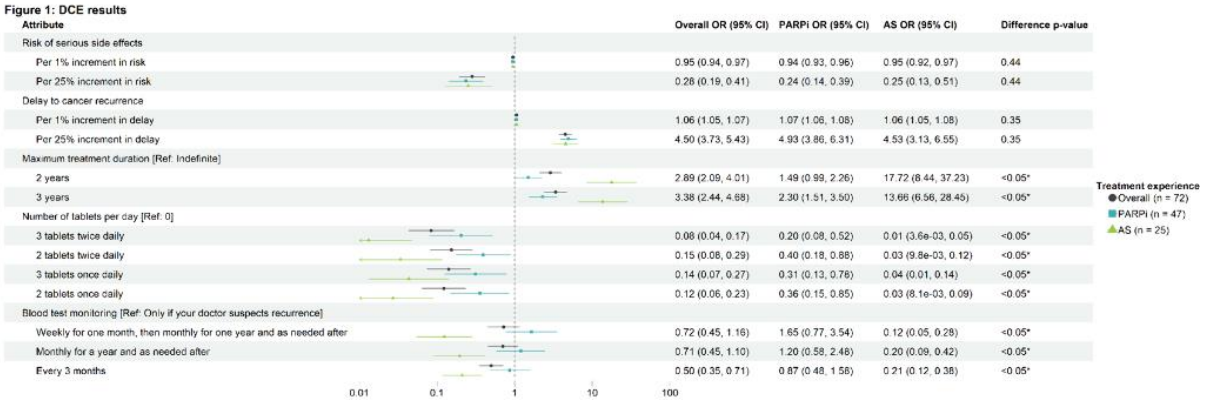
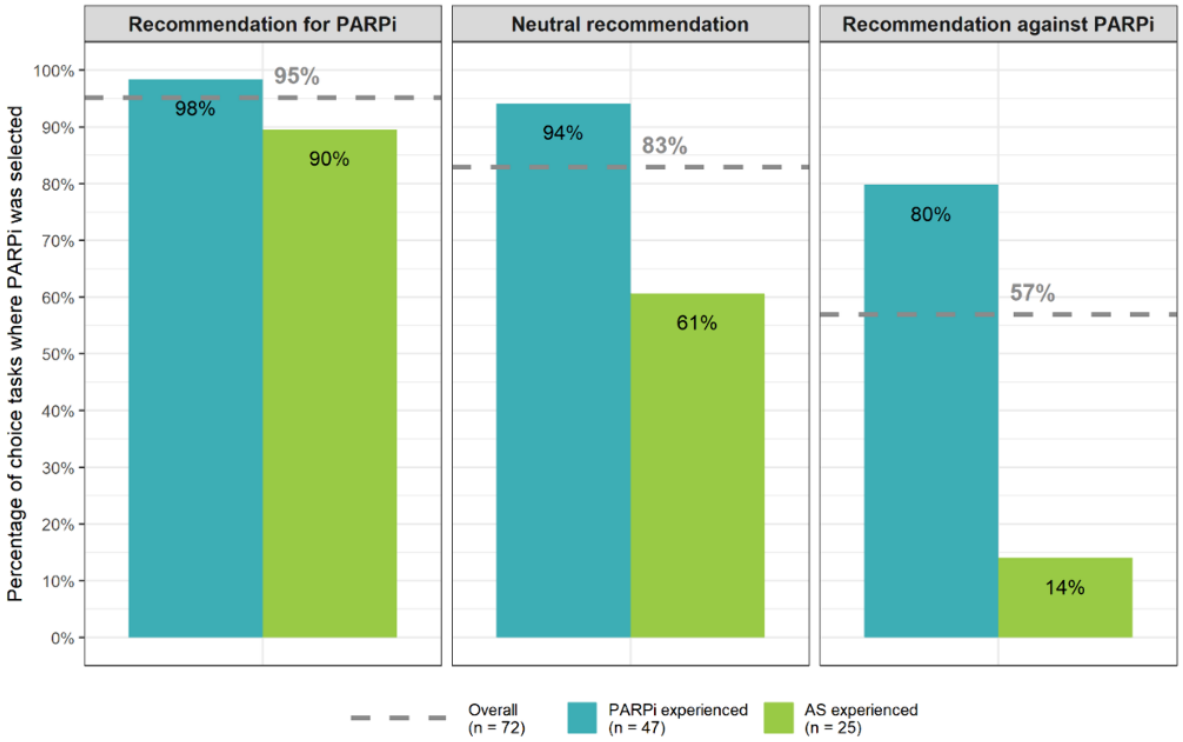


Figure 2: Impact of oncologist recommendation on choices



Conclusion/Implications: AS participants strongly preferred no tablets, finite treatment, and as-needed monitoring, which may influence real-world choices. However, they mostly chose PARPi when the hypothetical oncologist recommended it or was neutral. Understanding these preferences and oncologists' influence is key to optimizing shared decision-making.

PR036 / #721

Topic: *AS04. Prevention & Downstaging / AS04b. Prevention & Vaccination*

CERVICAL DYSPLASIA AND COLPOSCOPIC FINDINGS IN 25-30 YEAR OLDS, AFTER INTRODUCTION OF NATIONAL HUMAN PAPILLOMAVIRUS VACCINATION

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University Hospital Galway, Department Of Colposcopy, Galway, Ireland

Introduction: In 2010, the HPV vaccine was added to the National Immunisation Schedule in Ireland, offering the quadrivalent vaccine to all female students in their first year of secondary school (approximately 12-13 years old). A catch-up programme also offered the vaccine to female students in sixth year of secondary school (approximately 16-18 years old). We aimed to investigate if rates of cervical dysplasia were different for 25-30 year old women who had been eligible for the HPV vaccine under the National Immunisation Schedule, compared to 25-30 year old women who were not eligible for the HPV vaccine.

Methods: A retrospective cohort study compared colposcopic findings between two groups; a post-vaccine group comprising 25-30 year olds that were eligible for the HPV vaccine under the National Immunisation Schedule (born in 1995) and a pre-vaccine group comprising 25-30 year olds that preceded the HPV vaccine and were not eligible (born in 1992). Data regarding colposcopic findings have been collected from Mediscan software. Statistical analysis was performed in SPSS version 26.

Results: The pre-vaccine group consisted of 759 attendances by 368 people and the post-vaccine group consisted of 682 attendances by 346 people. Within the pre-vaccine group, 27.4% of biopsies were high-grade CIN (CIN2-3), compared to 17.3% in the post-vaccine group. This represents a relative risk of 0.63, with a 95% confidence interval (0.499, 0.797).

Conclusion/Implications: Regardless of individual vaccination status, the introduction of a national HPV vaccination programme is associated with lower rates of high-grade cervical dysplasia.

PR037 / #519

Topic: *AS04. Prevention & Downstaging / AS04b. Prevention & Vaccination*

CERVICAL CANCER ELIMINATION IN AFRICA USING THE AVAILABLE LOCAL RESOURCES: AN EGYPTIAN EXPERIENCE.

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Introduction: Globally; cervical cancer is the fourth most common cancer among women. It was reported that about 90% of the reported new cases and deaths worldwide occurred in low- and middle-income countries in 2020. The highest burden of cervical cancer worldwide located in the Sub-Saharan African countries. Poor awareness of women residing in the developing world and absence of national screening programs resulted in diagnosis of many cases in in advanced stages of disease where the prognosis is poor.

Methods: We present a local initiative of Mansoura Gynecologic Oncology Unit, Egypt in collaboration with Menistry of health. It included 3 phases; training of gynecologists for basics of screening methods, on-site visits as compaings for screening, and management of the referred cases with colposcopy and cervical biopsy. We used visual inspection with acetic acid in screening; being simple, sensitive, and cheap test. For treatment of high grade SIL; we used modified low-cost LEEP procedure or cryotherapy. Quadrevalent HPV vaccines were offered to girls "free of charge" with help of non-governmental organizations.

Results: More than 6000 screened women during 15 campaign visits; 1200 cases were referred to GOU as VIA positive. After colposcopic examination; 550 biopsies were taken that revealed 105 pre-invasive (41 cases of HGSIL and 64 LGSIL) and 18 invasive cervical cancer (22.4%). The diagnosed cases were treated according to international guidelines and followed up.

Conclusion/Implications: The results of the low-cost initiative of cervical cancer elimination were impressive. It can be also implemented in other low-resource countries using the local resources without additional financial burden.

PR087 / #1108

Topic: *AS04. Prevention & Downstaging » AS04b. Prevention & Vaccination*

POSCAM AND EASE MODEL TO IMPLEMENT A POINT-OF-CARE TEST-AND-TREAT STRATEGY FOR VULNERABLE WOMEN IN REMOTE RESOURCE-RESTRICTED SETTINGS: THE PRECERCA (PREVENTION OF CERVICAL CANCER) INITIATIVE

Asima Mukhopadhyay[1], Daity Bhattacharjee[2], Rama Gupta[1], Manisha Vernekar[3], Nisha Singh[4], puja chatterjee[3], Ranajit Mandal[3], Somnath Chatterjee[5], Gwynn Thorburn[6]
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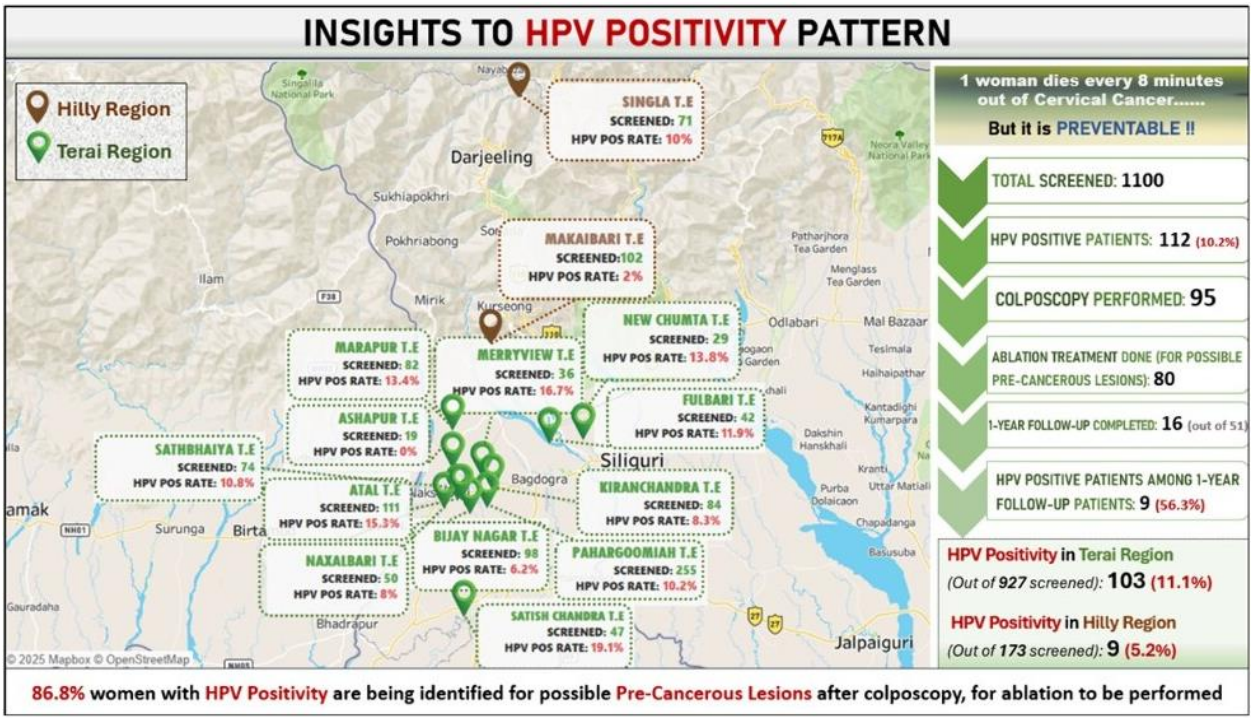
Introduction: Access and awareness to cervical cancer screening is a challenge in remote and resource-restricted settings.

Methods: We introduced a comprehensive approach including POSCAM (Population-sensitive-specific-systematic Cancer awareness method and Point-of-care HPV test-and-treat) strategy to introduce screening amongst tribal working women in the Tea-gardens of the Himalayan foothills in North Bengal A novel EASE model (Ethical-Accesible-affordable-Sustainable-Scalable-Effective-Early diagnosis and treatment of challenges/barriers) of implementation was introduced. Demographic/risk factors/willingness-to-pay and Pre/post COBRA (Cervix-oral-ovary-breast cancer awareness) counselling KAP scores were recorded in REDCap database. Point-of-care gene XPert vaginal HPV testing and biobanking was conducted (Funding -Cepheid Global Ltd, KolGOTRG and Suraksha Diagnostics Ltd).

Results: 1100 women across 14 tea-gardens, aged between 30-60 years participated in this KOLGOTRG sponsored CTRI approved, nurse-led study between December 2022 and February 2025. HPV positivity varied (2-19%) between garden clusters averaging at 10.8% (112/1100 women) and across all age groups 30-40, 41-50,51-60 (Figure 1). Mobile pocket colposcope (Donation Duke University) and Thermablation (Donation LIGER) was carried out in HPV positive women by trained nurses in the respective tea-gardens (workplace) which was acceptable to majority of women. Ongoing data indicate high prevalence of persistent HPV infection at 1 year follow up.

Conclusion/Implications: Unique barriers, challenges and solutions were identified through the systematic POSCAM and EASE model approach. A robust referral integration system supported by the state Health Ministry and local Medical college, tea-garden management, Indian council of Medical Research rural health research unit

and local NGOs ensured local stakeholder support for long-term sustainability and follow up.



PR038 / #572

Topic: *AS04. Prevention & Downstaging / AS04c. Screening & Early Detection*

NON-INVASIVE DETECTION OF GYNECOLOGICAL CANCERS USING MED-SCAN: A METHYLATION-BASED DIAGNOSTIC ACCURACY STUDY

Hanane Aamran[1], Joachim Boers[2], Ruben Boers[2], Henk Van Den Munckhof[3], Frederique Prevoo[3], Marianne Maliepaard[4], Wim Quint[3], Joost Gribnau[2], Caroline Van Den Berg[4], Heleen Van Beekhuizen[4]
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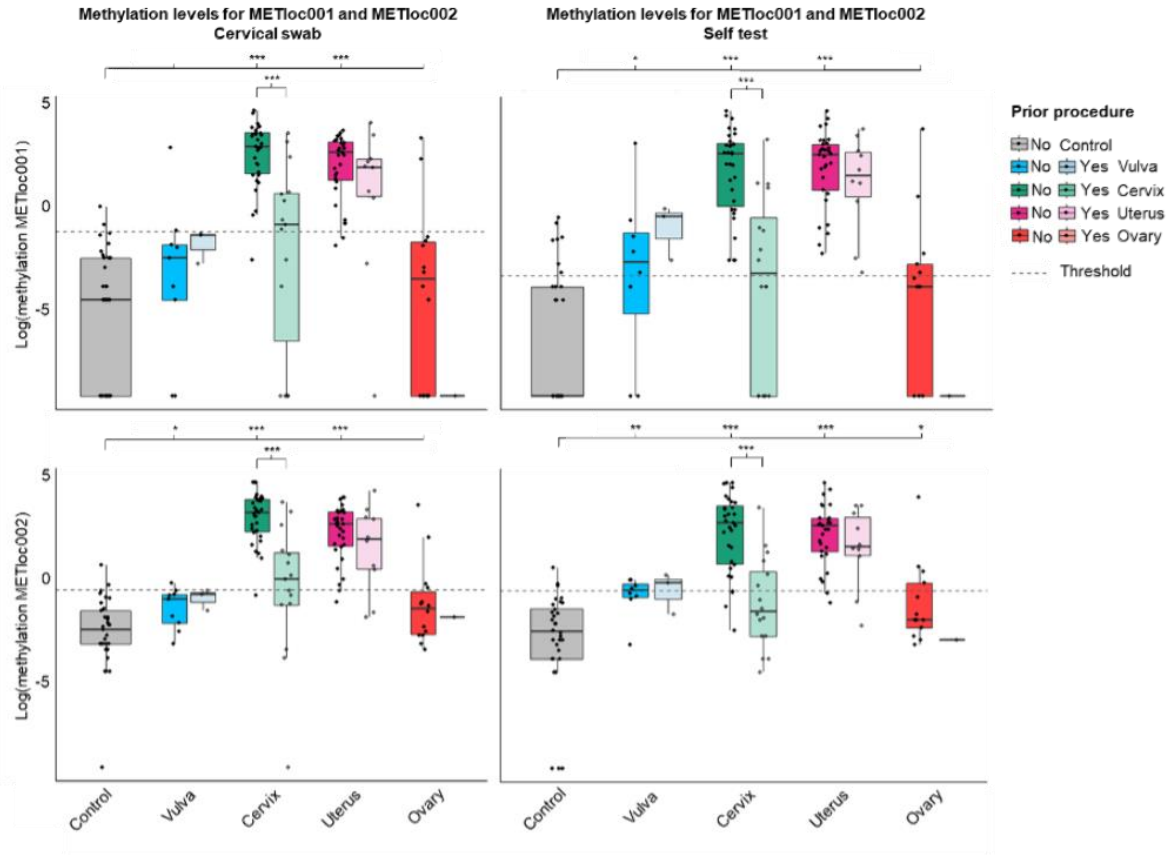
Introduction: Early detection of gynaecological malignancies is critical to improving health outcomes, yet current diagnostic methods often rely on invasive procedures. This study evaluated MeD-Scan, a methylation assay targeting two differentially methylated regions, detecting vulvar, cervical, endometrial, and ovarian carcinomas in cervical swabs and non-invasive vaginal self-tests.

Methods: In this diagnostic accuracy case-control study, women with histopathologically confirmed gynaecological malignancies were included as cases. Patients with prior treatment or no primary tumour were excluded. Controls were women attending the benign gynaecological clinic without malignancy. Clinicians adhered to standardized protocol, collecting vaginal self-tests followed by cervical scrapings for each patient. Methylation levels were analysed using quantitative methylation specific PCR assays. Histopathology served as the reference standard; transvaginal ultrasound or cytology was used for controls when histology was unavailable.

Results: A total of 117 malignancy cases (vulva n=12, cervix n=48, endometrium n=42, ovary n=15) and 33 controls were included. Over half of cervical, endometrial, and vulvar cancers were early stage (FIGO I–II). MeD-Scan showed high sensitivity for cervical and endometrial cancers in vaginal self-tests (100%) with AUCs of 0.98 and 0.99. Similar results were seen in cervical swabs. Methylation levels were lower in cervical samples taken after diagnostic procedures. Vulvar cancer sensitivity was higher in vaginal self-tests (88%) than swabs (22%). MeD-Scan did not distinguish ovarian cancer from controls.


Methylation levels for METloc001 and METloc002
Cervical swab
Methylation levels for METloc001 and METloc002
Self test
Log(methylation METloc001)
Log(methylation METloc002)
5
0
-5
Control
Vulva
Cervix
Uterus
Ovary
Prior procedure
No Control
No Yes Vulva
No Yes Cervix
No Yes Uterus
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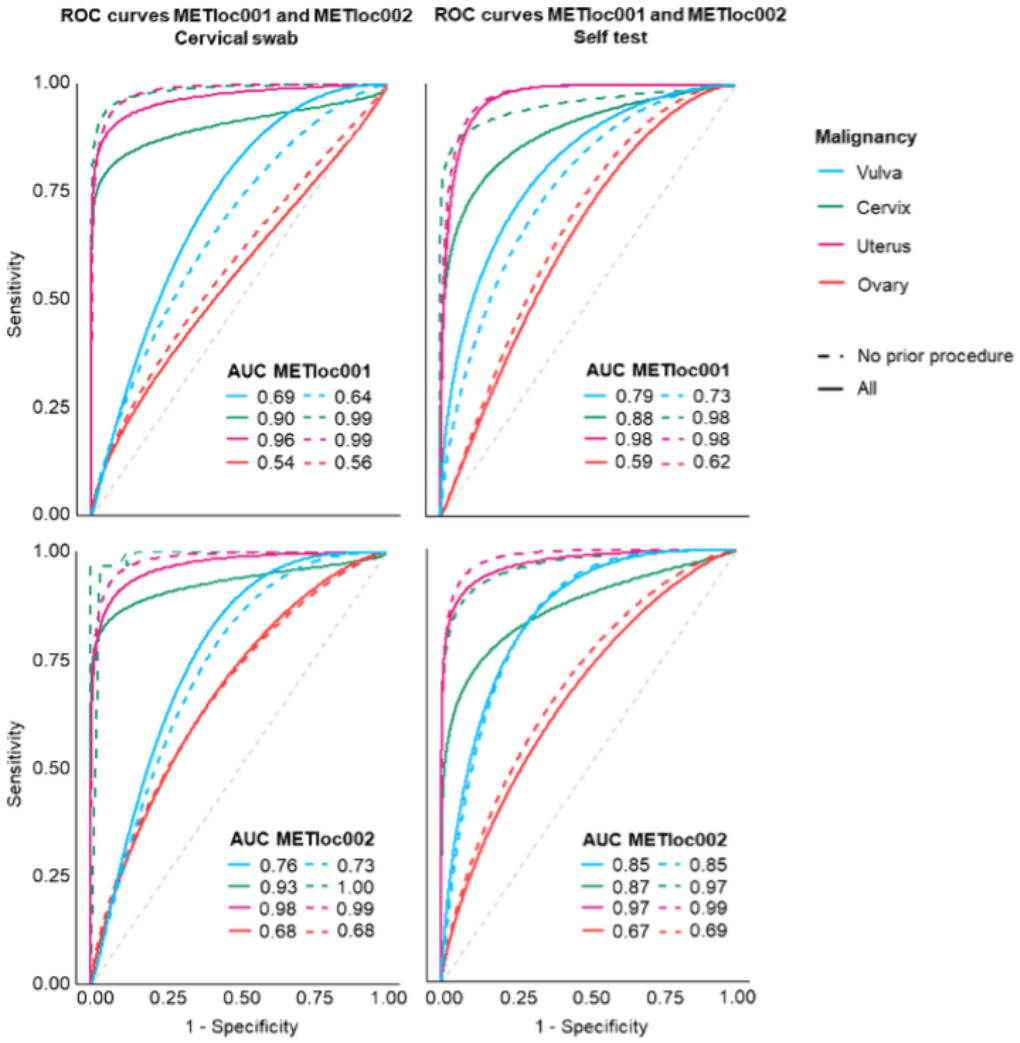
Threshold



Conclusion/Implications: MeD-Scan shows potential as a non-invasive, cost-effective tool for detecting cervical and endometrial cancer via vaginal self-tests. Further validation using patient-collected samples is essential to confirm performance and support integration into diagnostic triage or screening programs.

PR039 / #316

Topic: *AS04. Prevention & Downstaging / AS04c. Screening & Early Detection*

BUILDING CAPACITY FOR PATIENT NAVIGATION IN CERVICAL CANCER PREVENTION ACROSS TEXAS

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Introduction: Cervical cancer rates in Texas are among the highest in the U.S., often due to poor access to prevention services, lack of insurance coverage, and low health literacy. Patient navigation is an evidence-based intervention for cervical cancer prevention. Navigators encourage screening, coordinate follow-up, and manage structural barriers to healthcare. MD Anderson supports 17 community clinics across Texas to improve cervical cancer screening and treatment of pre-invasive disease.

Methods: Our navigation program consists of formal training for navigators including in-person workshops that review various topics (Table 1). These workshops are held in conjunction with hands-on colposcopy and LEEP trainings for medical providers from their clinics. This allows navigators to better understand cervical cancer prevention procedures and fosters stronger collaboration between navigators and clinicians. The in-person workshops are supplemented with a monthly virtual educational series using Project ECHO, with case-based discussion and lectures (Table 2).

Table 1. Lectures for In-Person Patient Navigation Courses

Role of Patient Navigators
Patient Education & Communication
Addressing Barriers when Scheduling Patients
Barriers to Care & Community Resources
Outreach Events and Navigation
Patient Perspectives on Cervical Cancer Prevention
Health Promotion for Individuals with Abnormal Results
Tracking Abnormal Screening Results
REDCap Data Entry for Navigators

Table 2. Lectures for Patient Education & Navigation (PEN ECHO) Telementoring Sessions

Patient Navigation and Competencies
Screening Guidelines for Colorectal Cancer
Screening Guidelines for Cervical Cancer
Screening Guidelines for Breast Cancer
Tobacco Cessation Education
Patient Navigation and Documentation
Self-Care
Motivational Interviewing
Communication with Patients
Patient Advocacy and Empowerment
Cancer Survivorship
Active Living After Cancer: Improving cancer survivors' physical functioning through physical activity
Breast & Cervical Cancer Services / Medicaid for Breast and Cervical Cancer Eligibility
Identifying Community Resources for Cancer Patients
Cancer Moonshot Engagement
Understanding Strategies for Breast and Cervical Cancer Elimination

Results: From September 2022 to December 2024, navigators from 17 clinics attended six in-person workshops, with an average of 12 navigators per workshop. In total, 22 ECHO sessions have been held with an average of 34 attendees per session. During this time, navigators educated 217,981 individuals on cervical cancer prevention and provided navigation services to 47,298 people, including scheduling, case management, financial assistance, patient reminders, and referrals.

Conclusion/Implications: Patient navigation is a critical component of cancer prevention. The implementation of in-person trainings coupled with ongoing virtual support allows navigators to improve cervical cancer prevention efforts in their local communities in close collaboration with their clinical colleagues.

PR040 / #583

Topic: *AS04. Prevention & Downstaging / AS04c. Screening & Early Detection*

HIGH-THROUGHPUT HPV GENOTYPING VIA NEXT-GENERATION SEQUENCING USING UNCODED CHAPTERDX COMPREHENSIVE ASSAY FOR DETECTION OF 28 HPV TYPES AND 13 SEXUALLY TRANSMITTED INFECTIONS: A FIRST COMMUNITY-BASED CERVICAL CANCER SCREENING STUDY FROM INDIA

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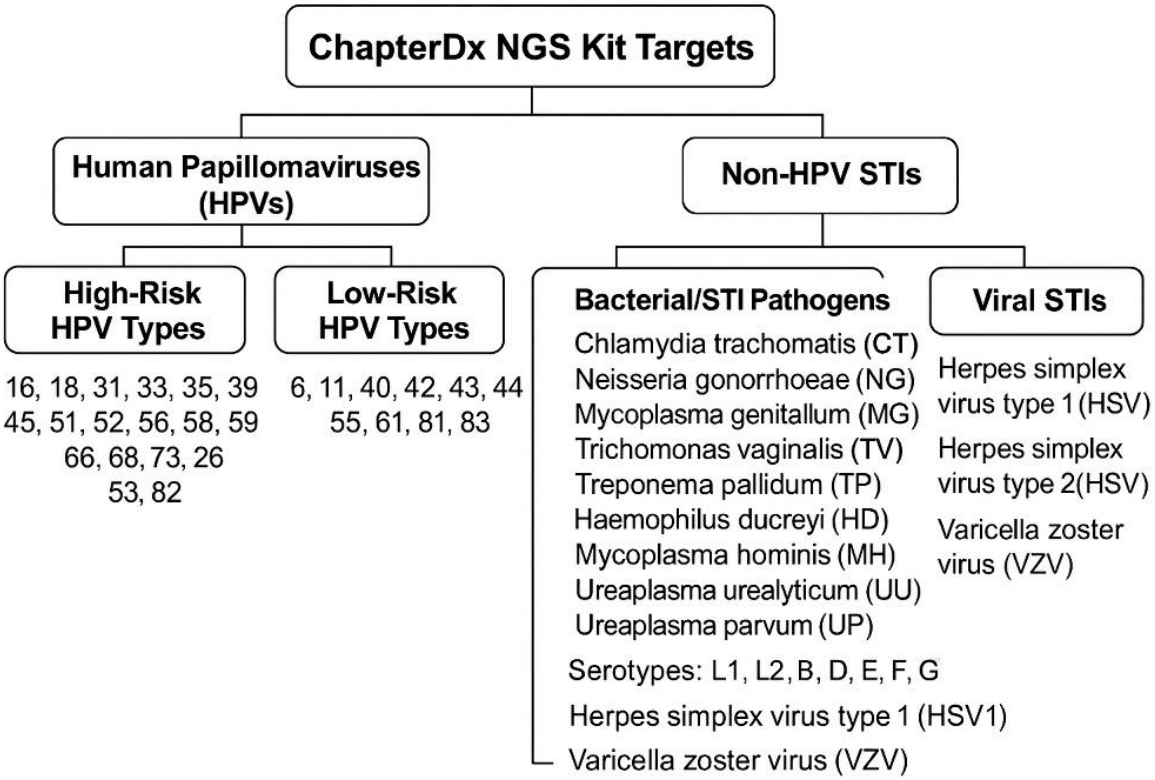
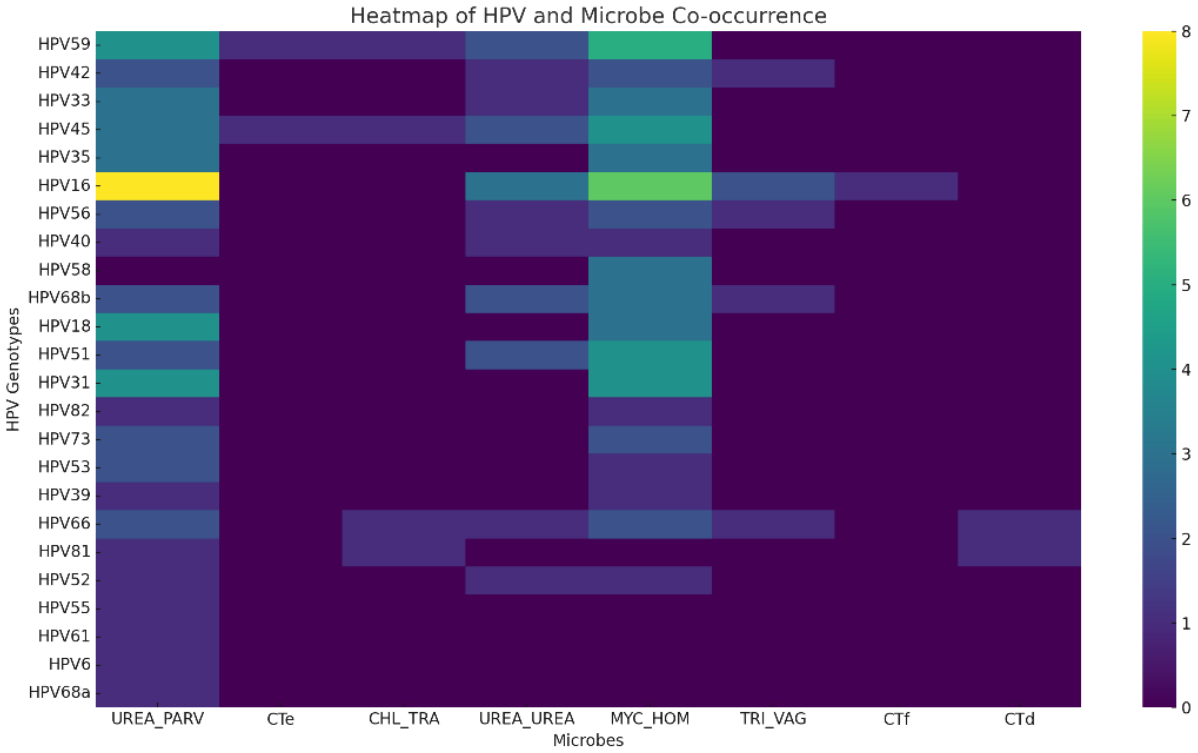
Introduction: Cervical cancer, largely caused by persistent HR-HPV infections, is the second most common cancer among Indian women, yet screening rates remain low and **genotype data across lesion severities are scarce**.This study uses **next-generation sequencing** to **profile HPV genotypes** in a community-screened population,addressing gaps in genomic diversity and **co-infection patterns**.

Methods: DNA was isolated from cervical scrapes collected during community screening and classified by Pap smear as LSIL, HSIL, ASCUS, or NILM. Samples were analyzed using the Chapter Diagnostics HPV-STI NGS kit,detecting **28 high- and low-risk HPV genotypes and 13-STIs**. Genotyping was performed on the Illumina NextSeq 550 and validated against the **Cobas-4800 system**.



Results: We performed NGS-based HPV genotyping on 88 HR-HPV positive and 8 HR-HPV negative women, achieving 100% concordance with Cobas-4800 results. **HPV16** was most prevalent(20.83%), followed by **HPV31** and **HPV33**(each 9.37%), and **HPV58**(8.33%), indicating diverse high-risk types. Among the 88 HR-HPV positive samples with cytology results, 13.63% (12/88) showed **abnormalities**: 25% HSIL(3/12), 25% LSIL(3/12), and 50% ASCUS(6/12). HSIL cases had multiple HR-HPV infections, with HPV56, 68, 42, and 31 in 66.6%(2/3) and HPV16 in 33.3%(1/3). ASCUS cases included HPV16,58,56,42,40,33,and 66; LSIL cases had HPV31,35,and 56. **Multiple HR-HPV infection**s were found in 75% (9/12) of abnormal cases. Common co-detected pathogens included *Mycoplasma hominis*,*Ureaplasma parvum*,*Ureaplasma urealyticum*,*Trichomonas vaginalis*,and *Chlamydia trachomatis*.



Conclusion/Implications: NGS offers high sensitivity for **HPV-genotyping** and **co-infection detection**, aiding risk-stratification in **resource-limited settings**. This study highlights the high prevalence of multiple HR-HPV infections among **Indian women**, particularly those with cytological abnormalities,potentially increasing their risk of invasive cervical cancer without **timely intervention**.

PR041 / #909

Topic: *AS04. Prevention & Downstaging / AS04c. Screening & Early Detection*

ROLE OF P16/KI-67 DUAL IMMUNOHISTOCHEMICAL (IHC) STAINING FOR THE DIAGNOSIS OF HIGH GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN II AND CIN III

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Introduction: This study was conducted to evaluate the diagnostic accuracy of p16/ki-67 dual staining in the identification of high grade Cervical Intraepithelial Neoplasia in Bangladeshi women.

Methods: The cross-sectional study was conducted in the Department of Gynecological Oncology, National Institute Cancer Research & Hospital from January 2022 to December 2022. Total 63 women with abnormal Paps smear or high-risk HPV DNA positive or VIA positive were included in this study. The diagnostic accuracy of p16/Ki-67 in differentiating pre- invasive disease from the benign lesions will be determined by sensitivity, specificity, positive and negative predictive values. The level of significance will be set at 0.05 and p-value < 0.05 will be considered significant.

Results: Majority 51(81.0%) subjects was found in VIA test positive, 10(15.9%) in Hr-HPV DNA positive and 2(3.2%) in abnormal pap test. About 46(73.0%) subjects were colposcopicaliy positive. According to histopathology 43(68.3%) had CIN I, 10(15.9%) had CIN II and 8(12.7%) had chronic cervicitis. About12(19.0%) patients were P16/Ki-67 dual stain positive, 17(27.0%) were only Ki-67 positive and 34(54.0%) were P16/Ki-67 dual stain negative. Among the dual stain positive subject 9(75.0%) cases were found Hr-HPV DNA positive, 2(16.7%) in Non Hr-HPV DNA positive and 1(8.3%) in Hr-HPV DNA negative,which was statistically significant ($p<0.05$).The sensitivity of p16/Ki67 dual stain for histopathology findings was 80.0%, specificity 92.5%, accuracy 90.5%, positive and negative predictive values were 66.7% and 96.1% respectively.

Conclusion/Implications: The combination of assessing Hr-HPV DNA with the intensity of p16 and Ki-67 staining may improve the sensitivity of identifying high grade Cervical Intraepithelial Neoplasia.

PR042 / #1003

Topic: *AS04. Prevention & Downstaging / AS04c. Screening & Early Detection*

DIAGNOSTIC ACCURACY OF THE PROGESTERONE CHALLENGE TEST TO GUIDE PREVENTION IN ENDOMETRIAL CANCER: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Most endometrial cancers (EC) arise from excess unopposed estrogen. The Progesterone Challenge Test (PCT) is a short, low-dose progesterone regimen used to determine if estrogens are present in sufficient quantity to trigger endometrial proliferation, which could lead to hyperplasia and cancer. Monitoring withdrawal bleeding after the discontinued progestogen defines a positive test (+PCT), which can identify populations at high risk for EC. We systematically evaluated the diagnostic accuracy of the PCT and its utility as a non-invasive test to direct screening and risk-reducing interventions.

Methods: We searched multiple databases for studies published before January 20, 2025, that investigated the results of the PCT compared to endometrial sampling in postmenopausal asymptomatic women. The studies were assessed for quality, and the proportion of +PCT, sensitivity, specificity, and predictive values were analyzed for two target conditions.

Results: We identified 19 articles with 3902 participants who underwent PCT. The +PCT rate was 23% (95% CI, 13%-34%), which was not significantly different for different risk populations. The type of progestin used had a significant impact on the +PCT rate. The sensitivity and specificity were 96% (95% CI, 86%-100%) and 86% (95% CI, 74%-96%), respectively. PPV was 33% (95% CI, 16%-53%) and NPV 100% (95% CI, 100%-100%).

Conclusion/Implications: The PCT is a sensitive and specific non-invasive test that can detect precancerous or cancerous endometrial pathology. Future work should assess this test's utility, acceptability, and cost-effectiveness on well-defined high-risk populations.

PR043 / #315

Topic: *AS05. Social Responsibility: Global Health, Economic Challenges & Inequity*

UPDATES ON THE INTERNATIONAL GYNECOLOGIC CANCER SOCIETY (IGCS) GLOBAL FELLOWSHIP PROGRAM

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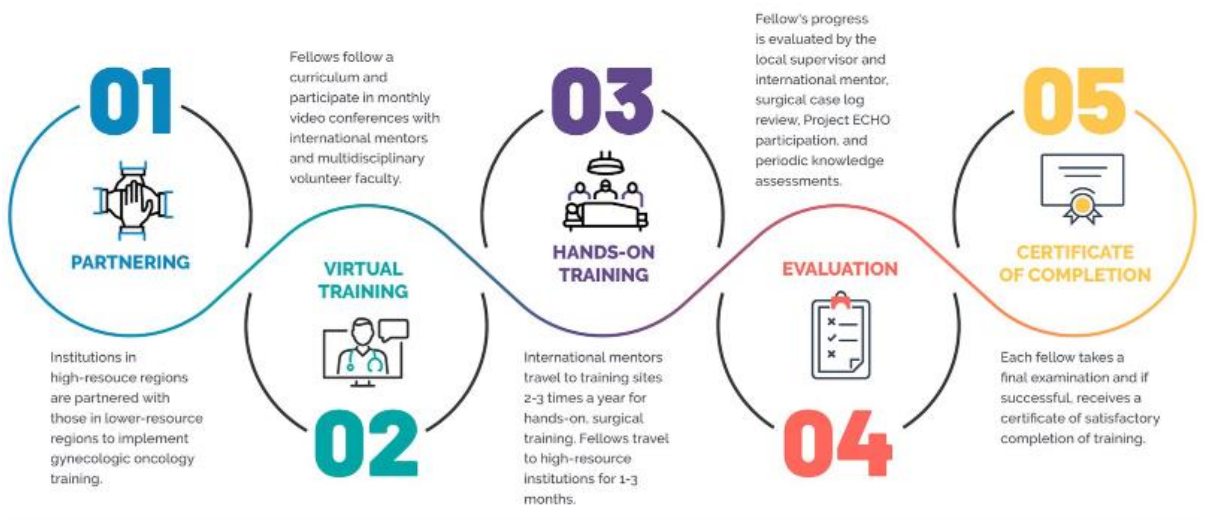
Introduction: Gynecologic malignancies remain a leading cause of death in low- and middle-income countries (LMICs). In 2017, the International Gynecologic Cancer Society (IGCS) started a Global Gynecologic Oncology (GYO) Fellowship Program for regions of the world without formal training. The program started with five sites in 2017 and has expanded to 22 sites in 18 countries, with 52 graduated fellows and 38 in training. We aimed to determine best practices and areas for improvement for the program.



Methods: From February to April 2024, recent graduates of the IGCS fellowship were invited to complete a 38-question survey regarding their experiences in the program. Descriptive statistics and thematic analysis were used.

Results: In total, 20 fellows from 11 countries completed the survey. On average, 70% of their practice is GYO, with many also providing obstetric and benign gynecology care. Most graduates have at least one other gynecologic oncologist at their hospital, but 6/20 are currently practicing alone. During fellowship, 10/20 fellows were unable to visit their international mentor's home site due to the COVID pandemic; however, 14/20 reported virtual guidance from their mentors for patient care. All fellows desired support after graduation, including one year of post-fellowship mentorship, quarterly meetings with other graduates, and more laparoscopic surgery training. Perspectives of graduated fellows are highlighted in Table 1.

Table 1. Perspectives of Graduated Fellows on the IGCS Global Gynecologic Oncology Fellowship Program

Questions	Responses
What did you like about the IGCS Fellowship Program?	• Mentorship and Networking • International Observership Opportunities • ECHO Meetings (Tumor Board + Didactics) • Complex Surgical Training
What needs to be improved about the IGCS Fellowship Program?	• More in-person time with International Mentors • More Surgical Skills Training and Exposure • Regular Evaluation throughout Fellowship • Continued Support after Graduation
Please let us know the challenges you are facing as a graduated fellow.	• Limited Equipment • Inadequate OR Availability • Lack of Staff • Delays in Diagnosis [for patients] • Limited Chemotherapy and Radiation Therapy • Desire for Laparoscopic Skills • Difficulty Conducting Research • Challenges Fitting into Hospital/Departmental Structure • Lack of Support • Burn-Out

Conclusion/Implications: The IGCS fellowship program has increased the number of gynecologic oncologists in LMICs. Our results suggest that fellows feel they gained valuable training and desire ongoing mentorship beyond graduation, a next step in growth for the IGCS fellowship.

PR044 / #449

Topic: *AS05. Social Responsibility: Global Health, Economic Challenges & Inequity*

INVESTIGATING ACCEPTABILITY AND EXPERIENCES OF WOMEN FOR HPV SELF SAMPLING IN A MULTI-CENTRIC STUDY IN INDIA

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Introduction: India contributes to one fifth of the global burden of cervical cancers. However, screening coverage is below 2%. HPV-Self Sampling (HPV-SS) is likely to empower women to self-test and increase screening coverage. This study aims to access the acceptability, validity and experiences of women regarding HPV-SS in varied settings across India.

Methods: WECAN is a multicentric with mix method study that is being implemented in low-income neighborhood across eight states in India. Culturally tailored art-based health education tools were used to generate awareness and promote HPV-SS.

Results: The study enrolled 3776 women and 3776 male partners.Totally, 650 group Sexual Health Education (SHE) sessions were conducted for women and 521 for men. Similarly, 972 one-to-one SHE sessions were conducted for women and 1615 for men. The acceptance of HPV-SS was 94% as comparedto Pap smear (0.7%) andVIA (0%). One site had low acceptance for HPV-SS(62.5%) and high rejection rates for cervical cancer screening (33.1%). The key barriers in this region were strong stigma associated

with cervical cancer and fear of screen positive test results. The screen positivity rates of HPV-SS varied from 2.0%to 8.1% across the regions with an average of 4.5%. Overall, 1.5% HPV-SS samples were invalid. These women were referred to nodal hospital for further diagnostic investigations.

Conclusion/Implications: This study shows good acceptability of HPV-SS across various regions in India. Integration of this strategy at National level is likely to increase the cervical cancer screening coverage.

PR045 / #35

Topic: *AS05. Social Responsibility: Global Health, Economic Challenges & Inequity*

THE ROLE OF PHYSICAL ACTIVITY AND EXERCISE IN GYNECOLOGIC CANCER CARE: PROTOCOL FOR AN UMBRELLA REVIEW

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Introduction: Background: Cervical cancer is the second leading cause of death among women in Thailand. Understanding the health literacy and knowledge of HPV, cervical cancer, and their screening is vital for nursing students as they prepare for professional practice. **Objectives:** To identify factors influencing health literacy and knowledge of HPV infection, cervical cancer, and its screening among Thai nursing students at rural and urban universities.

Methods: This study was a cross-sectional descriptive comparative study.The participants was current undergraduate nursing students from rural and urban universities in Thailand. A self-administered survey assessed health literacy and knowledge related to HPV infection, cervical cancer, and their screening. Descriptive and logistic regression analyses were used to identify factors associated with these variables.

Results: Among 641 nursing students (255 rural students and 386 urban students), rural students had significantly higher mean scores in cervical cancer screening knowledge ($t = -4.86$, $p < 0.001$) and health literacy compared to urban students ($t = -2.57$, $p = 0.01$). Rural students using the internet more than three days per week were 1.92 times more likely to have better knowledge of HPV and cervical cancer (95% CI: 1.10-7.73). Awareness of HPV (ORa = 2.51, 95% CI: 1.31-4.80) and frequent internet use (ORa = 2.31, 95% CI: 1.04-5.12) were associated with higher knowledge about cervical cancer screening and health literacy among rural nursing students.

Conclusion/Implications: Rural students exhibit higher health literacy and knowledge about cervical cancer screening than urban students. These findings highlight the need for diverse teaching strategies to enhance students' understanding and competency.

PR046 / #982

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

CHARACTERISATION OF ONCOGENIC HUMAN PAPILLOMAVIRUS AMONG WOMEN WITH CERVICAL CANCER ATTENDING AHMADU BELLO UNIVERSITY TEACHING HOSPITAL, ZARIA

Adeola Bintu Bakare[1], Abimbola Kolawole[2], Maryam Aminu[3], Ahmed Saad[4]
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Introduction: Human Papillomavirus (HPV) has been established as the cause of cervical cancer, and specific genotypes have been identified as responsible. Understanding the distribution pattern of the genotypes associated with cervical cancer in Nigeria is crucial for the effectiveness of the newly introduced HPV vaccine, given that geographical variations have been identified.

Methods: A descriptive study, involving fifty consenting women with a histological diagnosis of cervical cancer attending the gynaecological oncology clinic in Ahmadu Bello University Teaching Hospital, Zaria, Kaduna, Nigeria, was recruited for the study between January 2022 and June 2022. Using Nested PCR, fresh samples of exfoliated cervical cells were tested for HPV DNA. Positive samples were genotyped by sequencing the positive bands. The sequence was placed in GenBank to determine the individual genotype in each sample.

Results: All the samples were positive, with the majority (98%) being a single pattern of Infection. The identified oncogenic HPV genotype (66%) distribution includes 16 (38%), 18 (14%), 35 (8%), 45 (2%), 51 (2%) and 52 (2%). A rare genotype, HPV 70 (possibly-oncogenic), was detected as a single pattern of infection and it occurred as the second most common (30%).

Conclusion/Implications: To our knowledge, HPV 70 was detected for the first time in Nigeria. This reinforces the presence of geographical variation of HPV genotypes. Thus, underscoring the need for larger studies that will provide robust pre-vaccination data, which will be used to determine the effectiveness of the available vaccines. These will be relevant for the future production of HPV vaccines of local relevance.

PR047 / #1055

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

LONGITUDINAL STUDY ON QUALITY OF LIFE IN WOMEN LIVING WITH AND WITHOUT HIV FOLLOWING CERVICAL CANCER TREATMENT IN BOTSWANA: 5-YEAR FOLLOW-UP

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Introduction: This study evaluates longitudinal Quality of Life (QoL) in patients living with and without HIV and treated for Cervical Cancer (CaCx) in Botswana.

Methods: Between August 2016 - February 2020, patients with histologically confirmed CaCx and prescribed Chemoradiotherapy (CRT) living with and without HIV were prospectively enrolled at Princess Marina Hospital. Demographic and clinical measurements were collected at baseline. The European Organization for Research, & Treatment of Cancer Core Quality of Life (QLQ-C30) and CaCx-specific (QLQ-Cx24) questionnaires were administered prior to treatment (baseline), end of treatment (EOT), and at 3-months intervals until 5-years post-treatment or lost-to-follow-up. Continuous and categorical patient characteristics by HIV status were analyzed using student t-tests, and Pearson chi-square tests.

Results: In total, 294 CaCx patients (median age: 46) were enrolled. 74.1% were women living with HIV (WLWH). Between baseline vs. 60-month follow-up, the mean global health status (C30) improved from 68.13 to 83.99, with no statistical significance by HIV status (83.99 vs. 85.14, p=0.49). For the QLQ-Cx24, there was a significant difference in symptom scales between WLWH and women living without HIV at 54-months (93.27 vs 84.75, p=0.01). At 5-years, there was no significant difference observed for either the QLQ-C30 symptom scale (0.26 vs 0.55, p=0.89) or functional scale (99.70 vs 100.00

p=0.90), and the QLQ-Cx24 symptom scale (0.08 vs 0.11, p=0.98) or functional scale (96.17 vs 93.38, p=0.18).

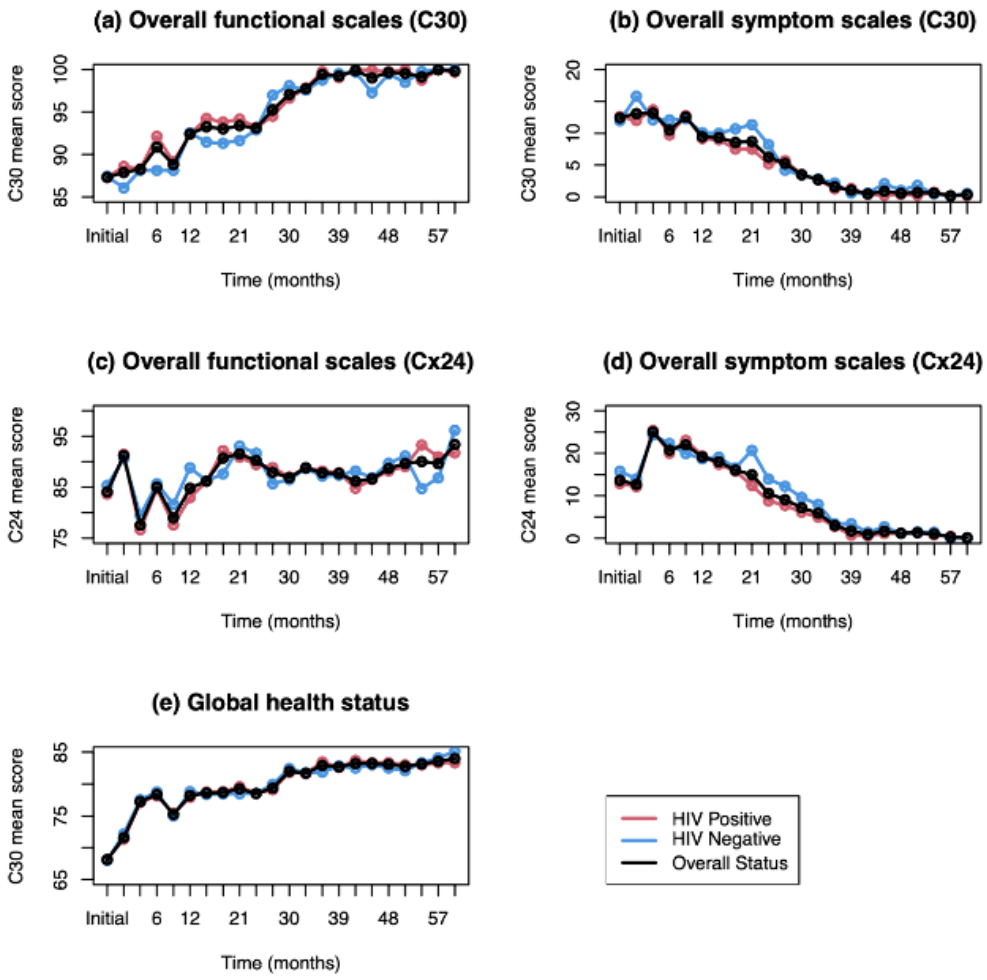

Figure 1: The Quality-of-Life Functional Scale, Symptom Scale and Health Status Scores before treatment (baseline), at the end of treatment and every 3 months thereafter for 60 months for HIV-positive and HIV-negative cervical cancer patients.

Conclusion/Implications: There were no statistically significant differences by HIV status for global health status, function, and symptom scales at 5-years follow-up with improvements between baseline and 5-years follow-up for all patients.

PR048 / #360

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

PATIENT-REPORTED OUTCOMES FROM THE PHASE 3 ENGOT-CX12/GOG-3057/INNOVATV 301 TRIAL OF TISOTUMAB VEDOTIN AS SECOND/THIRD-LINE TREATMENT FOR RECURRENT OR METASTATIC CERVICAL CANCER

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Introduction: The global phase 3 open-label ENGOT-cx12/GOG3057/innovaTV 301 trial (NCT04697628) demonstrated significantly improved OS with tisotumab vedotin (TV) vs chemotherapy for recurrent or metastatic cervical cancer (r/mCC). Patient-reported outcomes (PROs) using the EORTC Quality of Life Questionnaire (QLQ-C30) showed that global health status/quality of life (QoL) was maintained from baseline up to cycle 5 in both arms. Here, we present further post hoc analyses of QoL outcomes from innovaTV 301.

Methods: PROs were key secondary endpoints in innovaTV 301, including EORTC QLQ-C30 and the Cervical Cancer Module (QLQ-CX24). This post hoc analysis included change from baseline to cycle 13 using a mixed model for repeated measures, as well as time to clinically meaningful (≥10 point) worsening (Cox proportional hazards). Models controlled for baseline ECOG PS, prior bevacizumab, and prior anti–PD-1/PD-L1 therapy.

Results: A total of 198 patients in the TV arm and 158 in the chemotherapy arm completed ≥1 post-baseline PRO questionnaire. Global health status (QLQ-C30) was maintained from baseline to cycle 13 in both arms (Fig.1). Time to clinically meaningful worsening was generally more favorable among patients in the TV arm compared with the chemotherapy arm across key domains for both the QLQ-C30 and QLQ-CX24 instruments (Fig. 2).

Conclusion/Implications: Results from this post-hoc analysis add to the previously reported clinical outcome of OS benefit in patients treated with TV compared with chemotherapy and provide additional data for TV as an appropriate treatment option for patients with r/mCC.

Figure 1. EORTC QLQ-C30 Global Health Status/QoL score from baseline to cycle 13. Higher scores represent a higher quality of life.

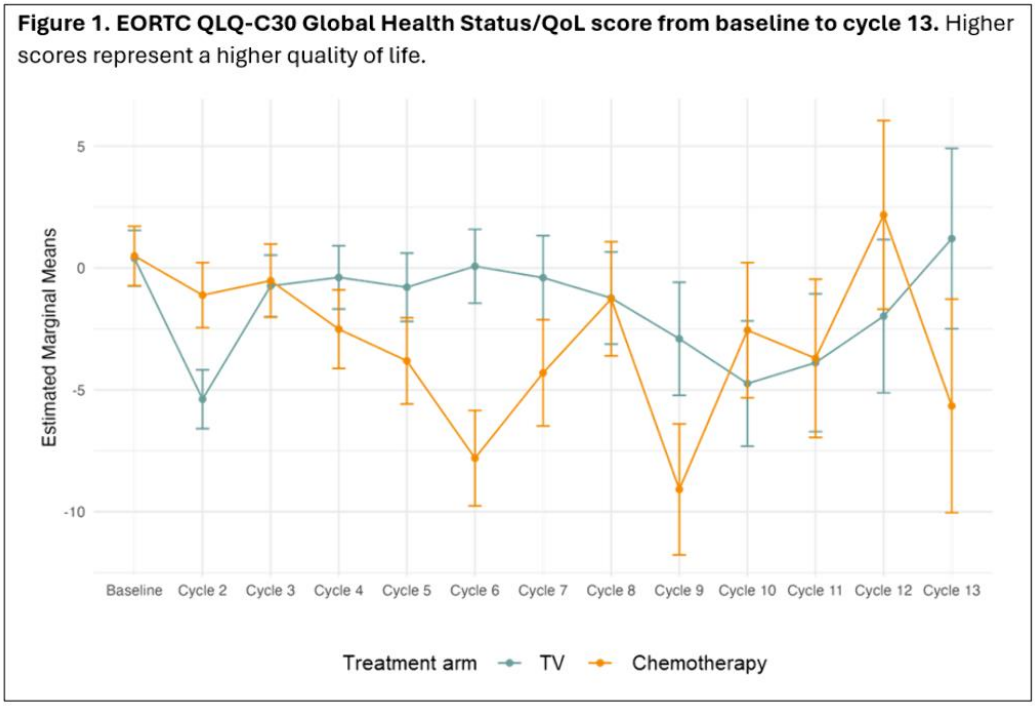
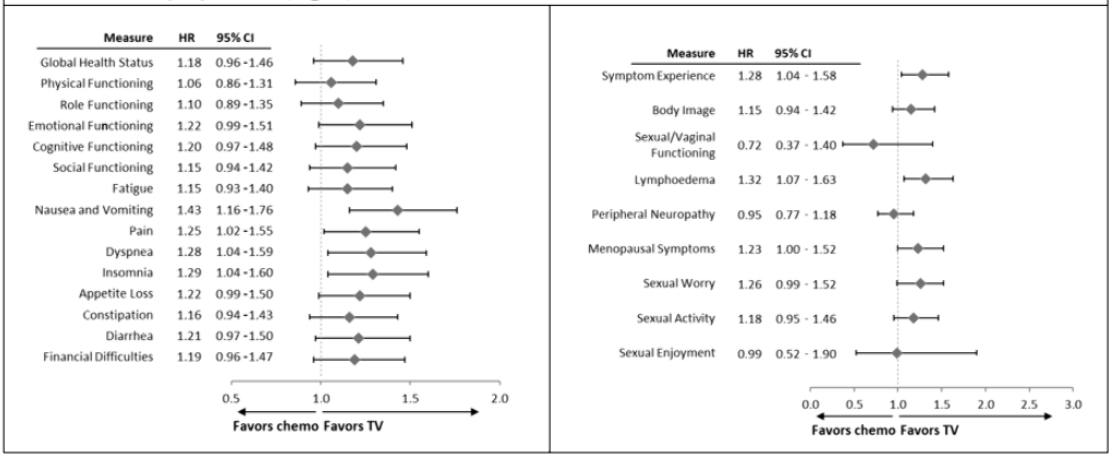


Figure 2. Forest plots for time to clinically-meaningful worsening for EORTC QLQ-C30 (left) and EORTC QLQ-CX24 (right) subscales



PR049 / #400

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

THE SAFETY OF IPAROMLIMAB AND TUVONRALIMAB(QL1706) IN TREATMENT OF CERVICAL CANCER: A MULTICENTER PROSPECTIVE REAL-WORLD STUDY

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Introduction: Iparomlimab and Tuvonralimab Injection(QL1706), a bifunctional combination antibody composed of PD-1 and CTLA-4, demonstrated an improved safety profile and an encouraging anti-tumour activity in previous data. However, real-world safety data in cervical cancer(CC) remain limited.

Methods: This prospective multicenter study was to evaluate the safety and efficacy of QL1706 monotherapy/combination therapy in patients with CC in the real world(ChiCTR2400091768). Patients with FIGO 2018 stage Ⅰ-Ⅳ CC treated with QL1706 containing therapy were enrolled. All patients received at least one dose of QL1706.

Results: As of March 31, 2025, a total of 32 CC patients (median age: 60 years; range: 32–84 years) were enrolled .Among the patients , the majority (66%) were diagnosed with Stage III or IV disease, all of whom had squamous cell carcinoma. The majority of patients had metastatic or recurrent CC, with 26 patients (81.25%) presenting one or more metastatic lesions. Most patients (29 [90.63%]) had ECOG performance status of 0~1. We focused on the safety and tolerability in this report.Treatment-emergent adverse events (TEAEs) of any grade occurred in 16 patients (50.00%). The most common adverse events (AEs) were lymphocytopenia (7 [21.88%]) and hemoglobin reduction (6 [18.75%]). Most TEAEs were Grade 1–2 (12 [37.50%]). Grade ≥3 TEAEs were observed in 4 patients (12.50%), including hemoglobin reduction (2 [6.25%]), elevated aspartate aminotransferase (AST) (1 [3.13%]), and hyperthyroidism (1 [3.13%]). No serious adverse events or treatment-related deaths were reported.

Conclusion/Implications: This is the first release of real-world data demonstrating the controllable safety profile of the innovative drug QL1706 in CC treatment.

PR050 / #885

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

CIRCADIAN CLOCK-TARGETING SMALL MOLECULES DISPLAY ANTI-CANCER ACTIVITY AND SYNERGISE WITH THE ANTI-MITOTIC AGENT, PACLITAXEL

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Introduction: An increasing body of work links cancer development to disruptions to the circadian clock, an internal clock that regulates essential processes such as sleep/wake behaviour and the cell cycle. Although novel small molecules targeting the circadian clock have been identified, their impact on cervical cancer have not been studied. To address this knowledge gap, the effects of targeting the circadian clock on cervical cancer were investigated, using small molecules, GO289 (CK inhibitor), KL001 (CRY stabiliser), S68435-1 (REV-ERB agonist), and Nobiletin (ROR agonist).

Methods: Cervical cancer cell lines, HeLa and ME180, and non-cancer cell lines, ARPE-19 and FG0, were treated with small molecules targeting the circadian clock. Cell viability was determined using MTT and spheroid assays. Flow cytometry (FACS) was used to assess cell cycle progression while Caspase assays were performed to measure apoptosis. To evaluate the potential for stemness, clonogenic assays were carried out. Finally, the small molecules were combined with Paclitaxel and the synergistic effects were analysed using Chou-Talalay method.

Results: GO289, S68435-1 and KL001 clock-targeting drugs induce selective inhibition of HeLa and ME180 cell viability, in both 2D and 3D cell assays, as well as the inhibition of colony forming capacity, and the induction of Caspase-3/7 activity and cell cycle arrest. Interestingly, all the clock drugs were shown to synergise with the anti-mitotic agent, Paclitaxel, in inhibiting cervical cancer biology.

Conclusion/Implications: Taken together, these findings reveal the circadian clock as a promising anti-cancer target for cervical cancer and demonstrate how exploiting circadian biology can improve existing cancer treatments.

PR051 / #544

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

EVALUATION OF THE CERVICAL CANCER TREATMENT CASCADE IN SIX SENTINEL SITES IN SOUTH AFRICA: 2018-2020

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Introduction: Globally, cervical cancer burden is estimated to grow exponentially if drastic measures are not implemented. Cervical cancer is preventable, yet it is the second most common cancer among women in South Africa. Lack of an effective recording system to monitor linkage between routine cervical cancer screening and treatment outcomes in South Africa (SA) compromises the monitoring and evaluation of treatment cascade and patient outcomes. The study aimed to evaluate cervical cancer screening and treatment cascade in South Africa, from 2018-2020.

Methods: A retrospective cohort study was conducted, using routinely collected data of patients screened and clinical audits for women diagnosed with cervical cancer at six sentinel sites for the period 2018 -2020. Logistic and survival regression models was used to analyse the treatment cascade

Results: A total of 11,114 women were screened, and 0,67% were suspected of cervical cancer through the routine screening programme. Just above a quarter of women, 26.7%, had pre-cancerous lesions during routine screening. (Figure 1) . A 44,3% patients who had cervical cancer were lost to follow-up within two years. Overall cascade demonstrate that the cervical cancer screening coverage gap is 25.5% to (70%+- target), the linkage to treatment gap is 58% to (90% +- target), loss to follow up gap is 26.7% to (<10% target), pre-cancerous lesions detection rate gap is 19.2% (<10 target) and reduction in mortality associated with cervical cancer is 21.3% gap (>10% target)(Figure 2).

Conclusion/Implications: Detecting pre-cancerous lesions without a follow-up strategy impacts the overall outcome of cervical cancer patients.

PR052 / #590

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

MODULATED ELECTRO-HYPERTHERMIA ADDED TO CHEMORADIOTHERAPY IMPROVES FIVE-YEAR SURVIVAL: RESULTS OF A PHASE III RANDOMISED CONTROLLED TRIAL

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Introduction: Hyperthermia, a known radiosensitizer, improves outcomes for locally advanced cervical cancer (LACC). Modulated electro-hyperthermia (mEHT), a cost-effective, mild heating technique with both thermal and non-thermal effects, may be ideal for resource-constrained settings where disease burden remains high. The effects and feasibility of the addition of mEHT to chemoradiotherapy (CRT) for LACC was evaluated in South Africa (ClincialTrials.gov ID: NCT03332069).

Methods: After consenting, participants with stage IIB-IIIB LACC (staged clinically) were randomised to receive CRT (50GY external beam radiation, 3x8Gy HDR brachytherapy and 80mg/m2 cisplatin 21 days apart) with or without mEHT. mEHT was applied twice weekly before radiation. HIV-positive participants with CD4 counts >200 cells/mm^3 or on ART >6 months were included. Local Disease Control (LDC) was assessed by PET/CT at 6 months post-treatment. Participants were followed for 5 years, survival was analysed using Kaplan-Meier curves and Log-rank tests, and toxicity and quality of life (QoL), and cost effectiveness were evaluated.

Results: LDC was significantly higher in the mEHT group (45.5% vs 24.1%; chi2: *p=0.003*).. 5yr disease free survival more than doubled with mEHT (Control:14%[14/102], mEHT:32%[32/99], OR:3.00;95%CI:1.49-6.07; *p=0.002*). mEHT did not alter the CRT toxicity profile. Quality of life was significantly improved in the mEHT group, and the combined treatment resulted in a cost-saving benefit. Notably, 24% of patients with extra-pelvic nodal disease treated with mEHT achieved complete metabolic response and long-term survival, suggesting a possible abscopal effect.

Conclusion/Implications: Adding mEHT to CRT is cost effective, safe, significantly increases 5y DFS rates, improves QoL, and may stimulate immune-mediated abscopal responses.

PR053 / #1009

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

TRIMODAL TREATMENT OF CERVICAL CANCER IN A LOW-RESOURCE SETTING IN KENYA: OUTCOMES BY HUMAN IMMUNODEFICIENCY VIRUS STATUS

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Introduction: Data on outcomes of trimodal treatment with radical hysterectomy (RH) and bilateral pelvic lymph node dissection (BPLND) plus concurrent chemoradiation (CCRT) for early-stage cervical cancer in HIV-infected women are scarce. This study compared clinicopathological features, treatment-related morbidity, and survival between HIV-infected and uninfected women with FIGO 2018 stage IA–IIA cervical cancer treated at Moi Teaching and Referral Hospital (MTRH).

Methods: A retrospective cohort study was conducted at MTRH, Kenya (January 2014–December 2023), using standardised data from patients who underwent trimodal treatment. Primary outcomes were 1-, 3-, and 5-year disease-free survival (DFS) and overall survival (OS). Secondary outcomes were treatment-related morbidity.

Results: Of 275 women who underwent RH and BPLND, 62 (22.5%) with known HIV status had intermediate- or high-risk features. Of these, 38 (61.3%) completed trimodal therapy, including 13 HIV-infected (34.2%) and 25 HIV-uninfected (65.8%). Baseline age, stage, and tumor size were comparable. Squamous carcinoma predominated (92.1%). Positive lymph nodes were the leading high-risk feature (53.8% HIV-infected vs 40.0% uninfected), while lymphovascular space invasion was the most common intermediate-risk factor (69.2% vs 40.0%). HIV-infected women experienced more lymphedema, bladder dysfunction, and myelosuppression. Three-year DFS (53.8% vs 77.6%, p=0.14) and OS (median 14.5 vs 21.1 months, p=0.12) were lower in HIV-infected women. On multivariate analysis, HIV-uninfected women had a 71% lower risk of death (HR 0.29; p=0.14).

Conclusion/Implications: Despite similar baseline features, HIV-infected women experienced greater morbidity and earlier recurrence after trimodal therapy. Strengthening HIV–oncology integration and larger prospective studies are needed to optimise outcomes in this population.

PR054 / #454

Topic: *AS06. Tumor Types / AS06b. Cervical Cancer*

THE IMPACT OF PREOPERATIVE CONIZATION ON RECURRENCE RATES IN IB1-1B2 CERVICAL CANCER TREATED WITH ROBOT-ASSISTED RADICAL HYSTERECTOMY COMPARED TO ABDOMINAL RADICAL HYSTERECTOMY.

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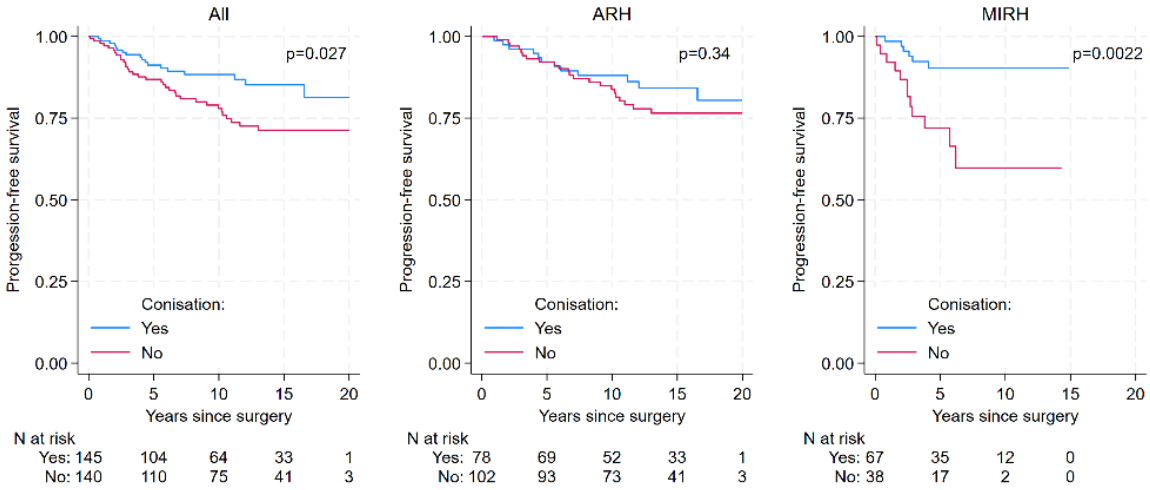
Introduction: Abdominal radical hysterectomy (ARH) remains the standard treatment in early-stage cervical cancer (CC). We hypothesized that CC stage IB1-IB2 with preoperative conization (PC) have less risk of recurrence with minimal invasive radical hysterectomy (MIRH) compared to without PC and compared to open ARH after 11.3 years of follow-up.

Methods: This retrospective study of 486 (FIGO 2018) underwent radical hysterectomy (RH) 2000-2017, with follow-up until 2020, including only stage 1B1-1B2, a total of 293 cases: 180 squamous-cell carcinomas, 96 adenocarcinomas, 9 adenosquamous, and 8 cases with other histology, which was excluded, leaving 285 for the final analysis. PFS was calculated using Kaplan-Meier. Univariate and multivariate (adjusting for age, histology, and LVI) Cox regressions were used for hazard ratios (HRs) and 95% corresponding confidence intervals, comparing patients with PC with those without conization, for MIRH and ARH groups respectively.

Results: 145/285 were treated with MIRH, 63.8% had PC, compared to 140 with ARH, where 36.2% had PC (p = 0.001) PFS at 10 years for the MIRH group were 90.3% and 59.8%, respectively for patients with PC and without PC (p = 0.0022). The corresponding numbers for the group were 88.1% and 83.8% (p = 0.34). The univariate hazard ratio comparing PC with no PC was 0.21 (0.08-0.56) for the MIRH group and 0.71 (0.35-1.43) for the ARH- group. Adjusting for age, histology, and LVI HRs changed to 0.20 (0.07-0.53) and 0.97 (0.47-2.01).

Conclusion/Implications:



MIRH with PC was associated with significantly approved progression-free survival. No such association was found for patients treated with ARH.

PR055 / #431

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

FIRST-LINE LENVATINIB + PEMBROLIZUMAB VERSUS CHEMOTHERAPY FOR ADVANCED OR RECURRENT ENDOMETRIAL CANCER: ADDITIONAL 1-YEAR FOLLOW-UP RESULTS FROM ENGOT-EN9/LEAP-001

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Introduction: At final analysis (median follow-up, 38.4 months) of ENGOT-en9/LEAP-001 (NCT03884101), first-line lenvatinib+pembrolizumab (L+P) did not meet prespecified statistical criteria for PFS or OS vs chemotherapy (CT) in pMMR advanced or recurrent endometrial cancer (EC). In exploratory analyses, L+P vs CT improved PFS

(HR, 0.61; 95% CI, 0.40–0.92) and OS (HR, 0.57; 95% CI, 0.36–0.91) in dMMR EC. We report findings after an additional year of follow-up.

Methods: Participants had stage III–IV or recurrent EC, measurable or nonmeasurable per RECISTv1.1 but radiographically apparent by BICR. Participants may have received prior CT only as (neo)adjuvant therapy and/or concurrently with radiotherapy if recurrence occurred ≥6 months after last CT dose. Participants were randomized 1:1 to oral L 20mg QD+intravenous P 200mg Q3W or CT (paclitaxel+carboplatin) until PD/unacceptable toxicity. P was given for ≤35 cycles; L could continue after P discontinuation. CT was given for ≤7 cycles (>7 cycles allowed if clinical benefit). Primary endpoints were PFS per RECIST v1.1 by BICR and OS in pMMR EC and all-comers.

Results: 842 participants were randomized. At data cutoff (5-February-2025), overall median follow-up was 54.5 (range, 46.5–69.0) months. Results are below. Additional data will be presented (tumor dynamics by BOR, participants who continued P beyond RECISTv1.1 progression, response/dose modification change over time, participant characteristics in those with durable response, and poststudy therapies)

Conclusion/Implications: Efficacy/safety findings after 1 year of additional follow-up were consistent with those at final analysis, with no new safety signals.

	pMMR		dMMR		All-Comers	
	L+P (n = 320)	CT (n = 322)	L+P (n = 100)	CT (n = 100)	L+P (n = 420)	CT (n = 422)
Median (range) follow-up, mo	53.8 (46.7–69.0)	53.8 (46.5–68.8)	55.8 (46.6–67.7)	55.8 (46.8–67.8)	54.5 (46.6–69.0)	54.6 (46.5–68.8)
PFS						
Median (95% CI),[a] mo	9.6 (8.2–11.9)	10.2 (8.4–10.5)	31.8 (22.5–NR)	9.0 (8.2–17.1)	12.5 (10.3–15.1)	10.2 (8.4–10.4)
HR (95% CI)[b]	1.01 (0.83–1.22)		0.62 (0.41–0.93)		0.92 (0.77–1.10)	
48-mo rate (95% CI), %	14.7 (10.6–19.5)	13.8 (9.0–19.6)	46.5 (35.7–56.7)	32.7 (21.3–44.6)	22.7 (18.4–27.3)	18.6 (13.8–24.0)
PFS2 (next-line therapy)						
Median (95% CI),[a] mo	24.0 (18.9–28.6)	22.6 (18.4–25.2)	NR (47.8–NR)	27.2 (16.4–NR)	29.8 (24.8–35.5)	22.6 (19.0–26.3)
HR (95% CI)[b]	0.94 (0.78–1.13)		0.52 (0.34–0.78)		0.84 (0.71–1.00)	
48-mo rate (95% CI), %	30.9 (25.6–36.3)	28.0 (22.7–33.4)	59.7 (48.9–68.8)	42.3 (32.3–52.0)	37.8 (32.9–42.7)	31.6 (26.9–36.4)
OS						
Median (95% CI),[a] mo	30.9 (25.4–37.6)	29.4 (26.2–34.8)	NR (NR–NR)	NR (27.2–NR)	37.9 (32.2–43.0)	32.3 (27.2–35.7)
HR (95% CI)[b]	0.99 (0.82–1.21)		0.60 (0.39–0.93)		0.91 (0.77–1.09)	
48-mo rate (95% CI), %	36.0 (30.5–41.4)	37.1 (31.5–42.6)	63.7 (53.1–72.5)	51.3 (41.1–60.7)	42.6 (37.7–47.5)	40.5 (35.7–45.4)
BOR (95% CI),[c] %						
ORR	50.6 (45.0–56.2)	54.7 (49.0–60.2)	72.0 (62.1–80.5)	58.0 (47.7–67.8)	55.7 (50.8–60.5)	55.5 (50.6–60.3)
CR	17.2 (13.2–21.8)	15.8 (12.0–20.3)	45.0 (35.0–55.3)	29.0 (20.4–38.9)	23.8 (19.8–28.2)	19.0 (15.3–23.0)
PR	33.4 (28.3–38.9)	38.8 (33.5–44.4)	27.0 (18.6–36.8)	29.0 (20.4–38.9)	31.9 (27.5–36.6)	36.5 (31.9–41.3)
SD	31.9 (26.8–37.3)	30.4 (25.5–35.8)	15.0 (8.6–23.5)	23.0 (15.2–32.5)	27.9 (23.6–32.4)	28.7 (24.4–33.2)
PD	9.4 (6.4–13.1)	6.5 (4.1–9.8)	8.0 (3.5–15.2)	7.0 (2.9–13.9)	9.0 (6.5–12.2)	6.6 (4.5–9.4)
Not evaluable[d]	2.5 (1.1–4.9)	0.3 (0.0–1.7)	2.0 (0.2–7.0)	0.0 (0.0–3.6)	2.4 (1.1–4.3)	0.2 (0.0–1.3)
No assessment[e]	5.6 (3.4–8.7)	8.1 (5.3–11.6)	3.0 (0.6–8.5)	12.0 (6.4–20.0)	5.0 (3.1–7.5)	9.0 (6.5–12.2)
DOR, median (95% CI),[a] mo	16.1 (13.1–23.2)	10.6 (8.3–12.0)	NR (29.5–NR)	11.7 (6.8–NR)	24.7 (18.1–29.7)	10.9 (8.3–12.7)

NR, not reached.
[a]Kaplan-Meier method for censored data.
[b]Based on Cox regression model with the Efron method of tie handling.
[c]Based on binomial exact CI method.
[d]Postbaseline assessment available but not evaluable.
[e]No postbaseline assessment available for response evaluation.

	L+P (n = 420)	CT (n = 411)
Duration on therapy, median (range), d	316.5 (1.0–2037.0)	126.0 (1.0–554.0)
Both L+P	217.0 (1.0–940.0)	–
L	257.5 (1.0–2037.0)	–
P	274.5 (1.0–941.0)	–
L dose reduction, n (%)	318 (75.7)	–
0	102 (24.3)	–
1	109 (26.0)	–
2	84 (20.0)	–
3	78 (18.6)	–
4	47 (11.2)	–
Time to first L dose reduction, median (range), mo	2.0 (0.2–26.0)	–
AEs leading to L or CT dose reduction, n (%)	267 (63.6)	91 (22.1)
AEs leading to interruption of any treatment, n (%)	312 (74.3)	169 (41.1)
L	257 (61.2)	–
P	249 (59.3)	–
Both L+P	141 (33.6)	–
AEs leading to discontinuation of any treatment, n (%)	203 (48.3)	80 (19.5)
L	180 (42.9)	–
P	121 (28.8)	–
Both L+P	69 (16.4)	–
Treatment-related AEs, n (%)	411 (97.9)	398 (96.8)
Grade 3–5	334 (79.5)	274 (66.7)
Led to any treatment discontinuation	170 (40.5)	70 (17.0)
Serious	122 (29.0)	45 (10.9)
Led to death	10 (2.4)	2 (0.5)

PR056 / #527

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

LONG-TERM ONCOLOGICAL AND FERTILITY OUTCOMES FOLLOWING THE LEVONORGESTREL INTRAUTERINE DEVICE IN EARLY-STAGE ENDOMETRIAL ADENOCARCINOMA – RESULTS FROM THE FEMME PHASE II RANDOMISED TRIAL

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Introduction: The feMMe trial was an open label, three-arm randomised phase II trial conducted at 16 sites in Australia and New Zealand (NCT01686126). 165 females with endometrial hyperplasia with atypia or clinical stage 1, FIGO grade 1 endometrioid adenocarcinoma were randomised to the levonorgestrel intrauterine device (LNG-IUD) with or without metformin or a weight loss intervention for 6 months. Here, long-term oncological and fertility outcomes are presented.

Methods: 96 Queensland participants were contacted to participate in long-term follow-up. Consenting participants were sent a questionnaire and asked to access medical records.

Results: 52 participants consented: 44 returned questionnaires and medical records were retrieved for 51 participants. Median follow-up time is 26 months (range: 7-52 months). 33/52 participants had a complete response (CR) at 6 months and of those, 21 continued with CR (median follow-up: 36 months; range: 14-46 months). 8/33 (24%) had a recurrence (median time to recurrence: 22 months; range: 13-50 months) and of those, three were successfully re-treated with LNG-IUD. Four patients did not have endometrial sampling beyond the 6-months duration of the trial. 19/52 participants did not have a CR at 6 months and of those, four achieved CR later (median time to CR: 14 months; range: 13-20 months), 13 had a hysterectomy and two had radiotherapy. 4/12 participants aged <45 years attempted to conceive – three utilised assisted reproductive technologies and two (50%) had live births.

Conclusion/Implications: Long-term follow-up of feMMe trial participants demonstrates a recurrence rate of 24%. Few participants attempted to conceive with a live birth rate of 50%.

PR057 / #44

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

LOW NEUTROPHIL-TO-LYMPHOCYTE RATIO IS ASSOCIATED WITH IMPROVED PROGRESSION FREE SURVIVAL IN PATIENTS WITH ADVANCED OR RECURRENT ENDOMETRIAL CANCER: AN ANCILLARY ANALYSIS OF NRG-GY018

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Introduction: Neutrophil-to-lymphocyte ratio (NLR) is prognostic for multiple tumor types and may predict response to immunotherapy. We aim to determine the association between NLR and progression free survival (PFS) for patients with advanced or recurrent endometrial cancer (EC) receiving chemotherapy (C) +/- pembrolizumab (P) in this ancillary data analysis of NRG-GY018.

Methods: NLR was calculated prior to initiation of therapy. High NLR was defined as ≥5.64 (>80th percentile). Primary outcome was progression free survival (PFS). Multivariate Cox regression used to assess the prognostic impact of NLR and test for interaction between treatment and NLR on PFS.

Results: NLR was calculated for 805 (98.3%) patients. High NLR (n=161) was associated with performance status >0, prior radiation, and absence of prior surgery. High NLR was associated with decreased PFS regardless of treatment arm [figure 1] and

the association held when adjusting for the covariates above. In the pMMR subgroup, patients with low NLR treated C+P (n=233) had improved PFS compared to those treated with C alone(n=241) (HR 0.6306, 95%CI 0.5033-0.7901). This difference was not significant for those with pMMR EC with high NLR (HR 0.8254, 95% CI 0.5292-1.2873, p 0.3974) [figure 2]. When testing for the interaction terms between NLR and treatment, we were unable to conclude that NLR was predictive of PFS.

Figure 1: Progression free survival based on treatment arm and NLR status for all patients enrolled on NRG-GY018 regardless of MMR status

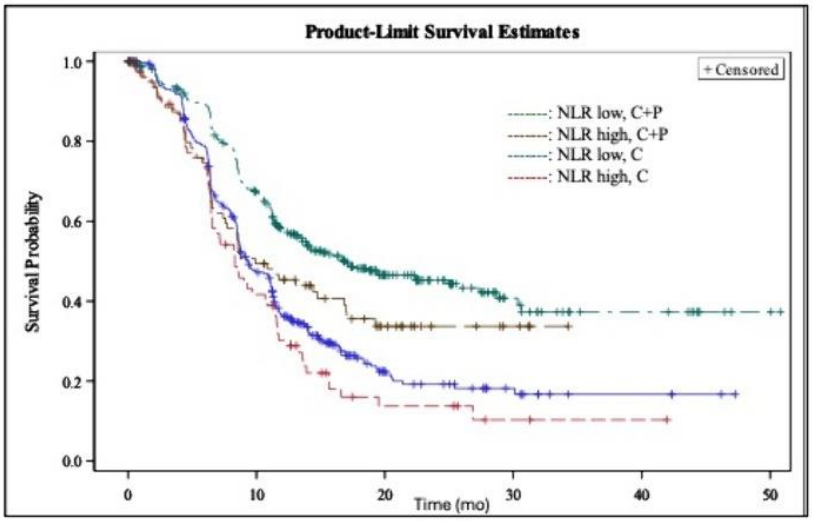
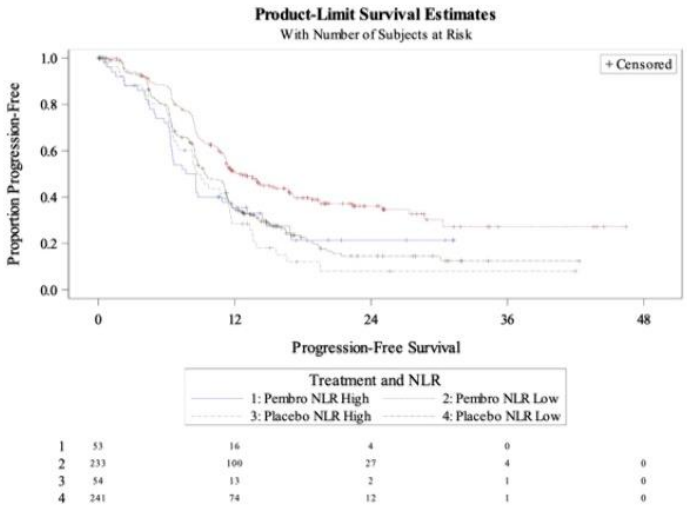


Figure 2: Progression free survival based on treatment arm and NLR status for patients with MMRp advanced or recurrent endometrial cancer enrolled on NRG-GY018



Conclusion/Implications: NLR is a prognostic for patients with advanced/recurrent EC however we were unable to demonstrate that it was predictive of response to pembrolizumab. This data supports further investigation to understand the relevance/drivers of NLR and the impact on clinical outcomes.

PR058 / #768

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

TRANSVAGINAL ASSESSMENT OF ENDOMETRIAL THICKNESS IN THE DIAGNOSIS OF ENDOMETRIAL CANCER DOES NOT WORK FOR BLACK WOMEN: IT'S TIME TO CHANGE PROTOCOL

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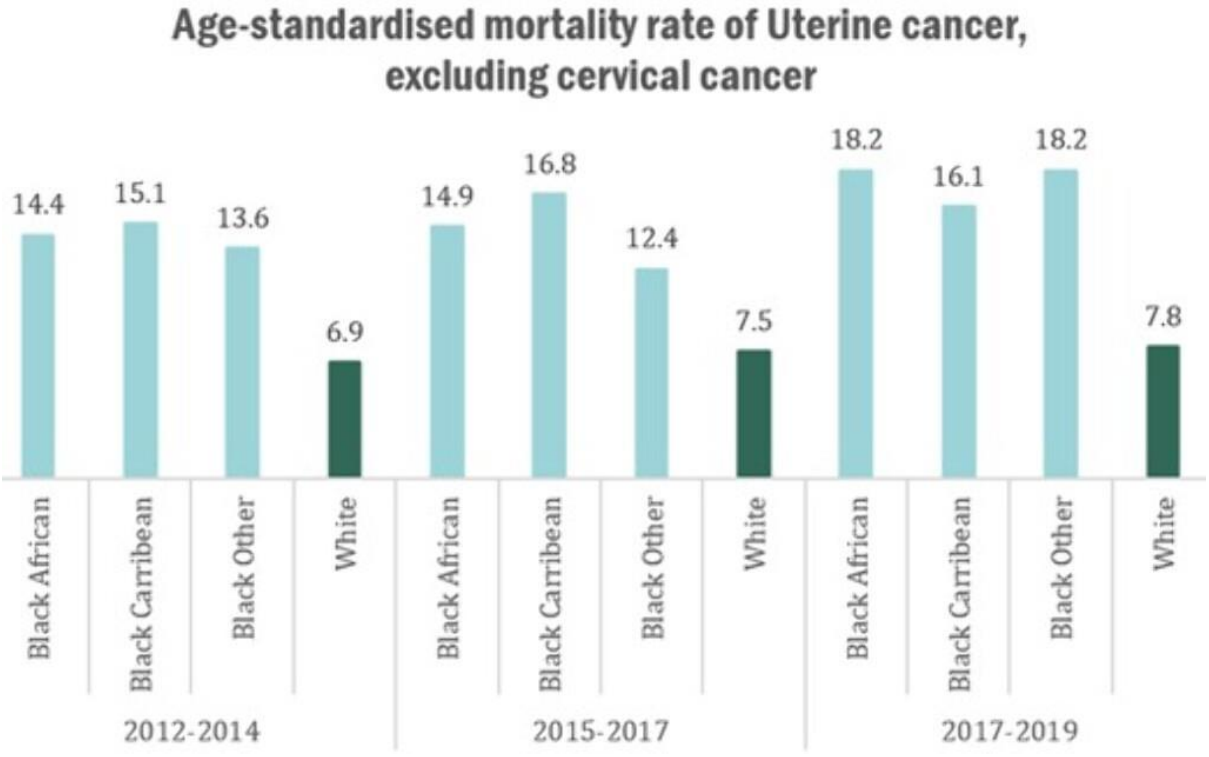
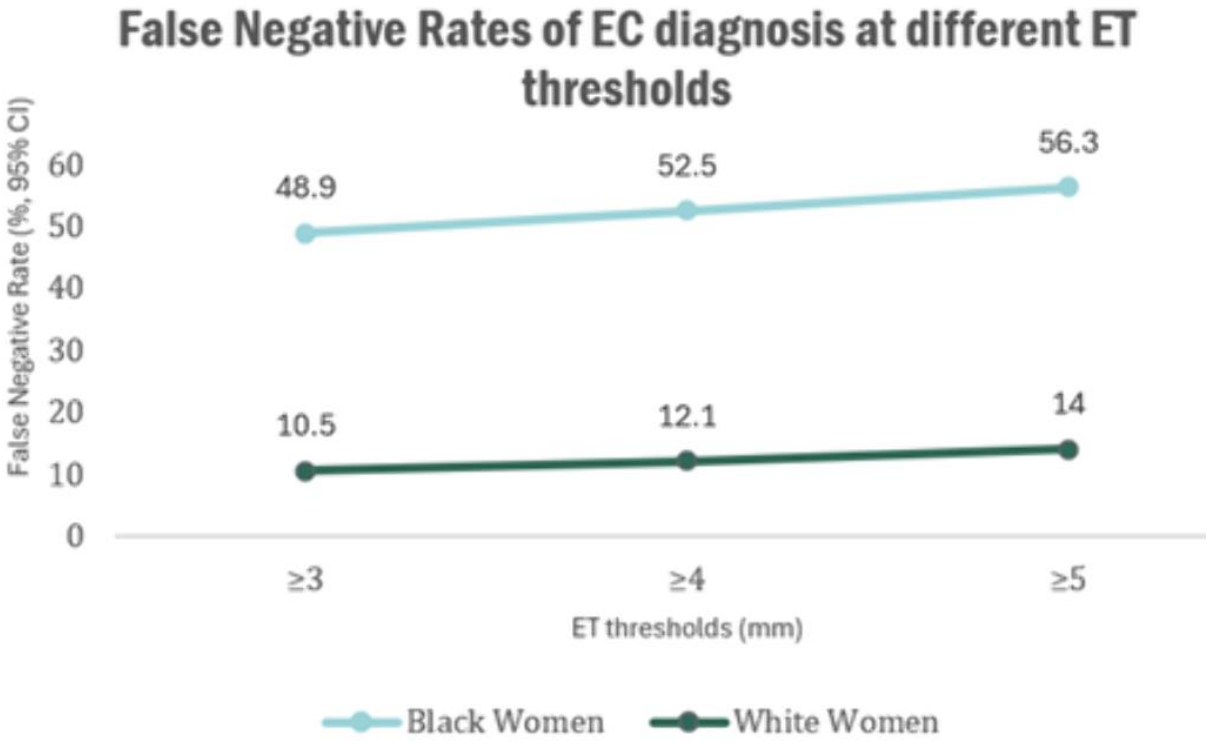
Introduction: Endometrial cancer (EC), the most common gynaecological cancer in the UK with 10,617 new cases in 2021, typically bodes a good prognosis. UK guidelines recommend that an endometrial thickness (ET) of <4mm in the presence of PMB and absence of other pathology is reassuring. Black women with EC face worse outcomes, with over double the age-standardised mortality rate (Figure 1) in the UK compared to White women. This literature review assessed the accuracy of ET in the diagnosis of EC in Black Women.



Methods: Review of literature from scientific databases identified using search terms including “ultraso*”, “thick*”, “Black”, “African”, “African-American”, “Caribbean”, “endometri*”, “cancer”.

Results: Literature suggests an increased prevalence of the more aggressive Type 2 EC and fibroids in Black women, reducing sensitivity of transvaginal sonographic

assessment of ET in the diagnosis of EC in Black women, compared to White women. Current UK guidelines recommending an ET cut off of ≥4mm are more likely to miss Black Women with EC, with studies suggesting a false negative rate of 23-52.5% at this threshold (Figure 2); sensitivity was 87.9% in White women but 47.5% in Black women. The use of the WID-qEC testing has shown greater sensitivity and specificity in the diagnosis of EC in Black and White women, compared to ET measurement, and is a promising tool to improve EC diagnosis in Black women.



Conclusion/Implications: Healthcare professionals encountering Black women with PMB should not be reassured by a thin or indistinct ET on ultrasound, and should have a lower threshold for endometrial sampling.

PR059 / #468

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

REAL-WORLD TREATMENT PATTERNS AND OUTCOMES IN PATIENTS DIAGNOSED WITH ADVANCED ENDOMETRIAL CANCER TREATED WITH IMMUNO-ONCOLOGY THERAPIES IN THE UNITED STATES: 2019-2024

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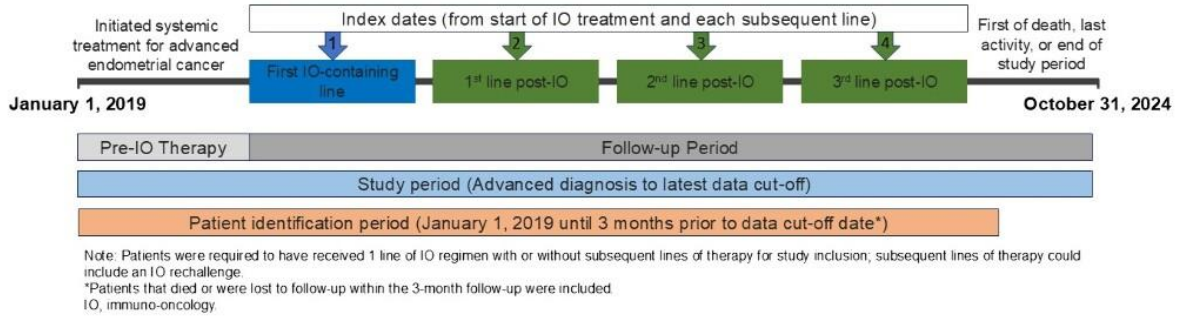
Introduction: Patients with advanced endometrial cancer (aEC) have poor prognosis (5-year survival rate, 19%). Despite promising agents in development pipelines, current post-immuno-oncology (IO) treatment options are limited. We report real-world treatment patterns and clinical outcomes to understand the post-IO treatment landscape.

Methods: This descriptive, retrospective cohort study used the Flatiron Health Research Database. Adult patients initiated systemic treatment for aEC on/after January 1, 2019, and a PD-(L)1 inhibitor regimen (hereafter IO) ≤3 months before October 31, 2024. Subgroups included mismatch repair status and IO retreatment. Four index dates were defined (Figure). Treatment patterns were described; median survival was calculated from each index date.

Results: 859 patients were identified (median age, 67 years; primary stage III/IV, >80%); 283 (33%) received ≥1 subsequent line of therapy (LOT). Median OS from first IO was 18.3 months and decreased with subsequent LOTs (Table). Median OS in the MSI-H/dMMR subgroup was 40.1 months from first IO, which decreased substantially to 13.5 months at the first subsequent LOT. Median OS was similar for patients with or without IO retreatment in the first subsequent LOT post-IO (Table). Among 94 patients who received their first IO in first line, 39% were retreated with an IO in the next LOT. Similar proportions of patients (~30%) who received their first IO in second line were retreated with an IO or received non-platinum-based chemotherapy in the next LOT.

Conclusion/Implications: Real-world survival is limited in the post-IO setting for patients with aEC. Effective treatment options are urgently needed to address the unmet need in these patients.



Note: Patients were required to have received 1 line of IO regimen with or without subsequent lines of therapy for study inclusion; subsequent lines of therapy could include an IO rechallenge.
*Patients that died or were lost to follow-up within the 3-month follow-up were included.
IO, immuno-oncology.

Table. Overall Survival by Overall IO Population and Subgroups

Study Population	N	Events, n	Median OS (Months)	95% CI
IO cohort				
First IO[a,b]	859	375	18.3	(16.5-23.3)
First subsequent LOT post-IO[c]	283	149	11.8	(10.4-13.5)
Second subsequent LOT post-IO[d]	99	52	10.8	(7.9-15.0)
Third subsequent LOT post-IO[e]	46	24	10.2	(5.9-NR)
Subgroups by MMR status				
First IO[a,b]				
MSI-H/dMMR	228	71	40.1	(26.9-NR)
MSS/pMMR	511	243	16.4	(13.9-18.7)
First subsequent LOT post-IO[c]				
MSI-H/dMMR	52	25	13.1	(11.3-NR)
MSS/pMMR	178	102	12.0	(9.2-14.3)
Retreated with IO in first subsequent LOT post-IO[c,f]				
Yes	88	37	13.1	(10.2-NR)
No	175	112	11.0	(6.8-13.1)

[a]Patients must have started the IO therapy at least 3 months prior to study end date in any setting (adjuvant or advanced). Those who died or were lost to follow-up within the 3-month period prior to October 31, 2024, were included.

[b]OS was calculated from the start of LOT that contained the first IO regimen to end of follow-up or death, whichever occurred first.

[c]OS was calculated from the start of the first subsequent LOT post-IO regimen to end of follow-up or death, whichever occurred first. Patients must have started the first subsequent LOT post-IO at least 3 months prior to study end date. Those who died or were lost to follow-up within the 3-month period prior to October 31, 2024, were included.

[d]OS was calculated from the start of the second subsequent LOT post- IO regimen to end of follow-up or death, whichever occurred first. Patients must have started the first subsequent LOT post-IO at least 3 months prior to study end date. Those who died or were lost to follow-up within the 3-month period prior to October 31, 2024, were included.

[e]OS was calculated from the start of the third subsequent LOT post- IO regimen to end of follow-up or death, whichever occurred first. Patients must have started the first subsequent LOT post-IO at least 3 months prior to study end date. Those who died or were lost to follow-up within the 3-month period prior to October 31, 2024, were included.

PR060 / #691

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

PROGNOSTIC AND THERAPEUTIC IMPLICATIONS OF POLE-MUTATED ENDOMETRIAL CANCER: A RETROSPECTIVE ANALYSIS

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Introduction: POLE-mutated endometrial cancers, characterized by a high mutational load and immunogenicity, are associated with an excellent prognosis. This favorable prognosis may persist despite co-occurring molecular alterations. We assessed the frequency, management, and outcomes of these tumors.

Methods: We conducted a retrospective study at University Hospital of Liège between January 2019 and December 2024. Among 229 patients with endometrial cancer, 23 (10.0%) harbored a POLE-mutated (POLEmut) status, including 10 (43.5%) in a multiple classifier setting (mismatch repair deficient [MMRd] and/or p53 abnormal [p53abn]). We collected and analyzed clinical, histopathological, therapeutic, and survival data.

Results: Tumors in POLEmut patients were predominantly endometrioid (90.9%), high-grade (50% grade 3), and diagnosed at FIGO 2023 stage I (86.4%). We identified POLEmut-MMRd and POLEmut-p53abn multiple classifier profiles in 9 patients (90%) and 1 patient (10%) respectively. The ESGO 2021 criteria, which do not consider molecular classification, lead to an overestimation of recurrence risk. Of the 13 patients with an exclusive POLE mutation, only 3 (23.1%) would have been classified as low-risk and therefore eligible for simple surveillance. By integrating molecular classification, this number rises to 10 patients (76.9%). Without molecular analysis, 7 patients (53.8%) would have received unnecessary adjuvant therapy. After a median follow-up of 21.5 months, no death occurred in POLEmut patients, and only one recurrence was noted in the multiple classifier group.

Conclusion/Implications: POLEmut endometrial cancers have an excellent prognosis, supporting treatment de-escalation and highlighting the value of molecular profiling for tailored risk assessment.

PR061 / #381

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

THE SAFETY AND FEASIBILITY OF LAPAROSCOPIC BARIATRIC SURGERY WITH HYSTERECTOMY FOR ENDOMETRIAL CANCER: A PROSPECTIVE COHORT STUDY

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Introduction: Obesity is a significant risk factor for endometrial cancer (EC), the most prevalent gynecologic malignancy in Canada. Obesity-related comorbidities adversely affect perioperative risks and long-term outcomes. Integrating bariatric surgery with hysterectomy may reduce obesity-related morbidity and mortality.

Methods: We conducted a prospective cohort study to evaluate the impact of combining laparoscopic sleeve gastrectomy (LSG) with total laparoscopic hysterectomy (TLH) in patients with morbid obesity and EC or atypical hyperplasia. Eligible surgical candidates with a BMI ≥ 35 kg/m^2 were offered oncologic staging with either TLH alone or combined TLH+LSG. Outcomes assessed included complication rates, operative time, length of hospital stay, and impact on weight and comorbidities.

Results: Of the twenty patients included, 12 (60%) underwent TLH + LSG and 8 (40%) underwent TLH alone. No significant differences were observed in pre-operative BMI (46.5 kg/m^2 vs. 56.8 kg/m^2, p=0.065), pre-operative hemoglobin (134.8 g/L vs. 136.7 g/L, p=0.8), post-operative hemoglobin (117.3 g/L vs 124.0 g/L p=0.5), and surgical time (189 minutes vs. 154 minutes, p=0.11). All procedures were completed by laparoscopy without conversion. Hospital stay was similar (1.1 vs 1.4 days, p=0.6). One perioperative complication occurred in each group; low rate precluded statistical comparison. At 6-months, BMI was significantly lower in the combined group (36.2 kg/m^2 vs. 57.6 kg/m^2, p=0.006), with a greater BMI reduction (Δ-21.6 vs. -2.1, p=0.008). Early data suggest reduced polypharmacy.

Conclusion/Implications: Combining LSG with EC surgical staging is safe with comparable perioperative outcomes. This approach achieved substantial weight loss, supporting its potential as an effective dual-treatment strategy for managing EC and obesity.

PR062 / #740

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

PEMBROLIZUMAB PLUS ADJUVANT CHEMOTHERAPY WITH OR WITHOUT RADIOTHERAPY FOR NEWLY DIAGNOSED HIGH-RISK ENDOMETRIAL CANCER: HEALTH-RELATED QUALITY OF LIFE (HRQOL) FROM THE PHASE 3 ENGOT-EN11/GOG-3053/KEYNOTE-B21 STUDY

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University Hospital Schleswig-Holstein, Lubeck, Germany; and Department of Gynecology and Obstetrics, University Hospital Muenster, Lubeck, Germany, [21]GOG Foundation and Division of Gynecologic Oncology, Ohio State University and James Cancer Hospital, Columbus, United States of America, [22]Division of Gynecologic Oncology, McGill University Health Centre; Women's Health Research Unit, Research Institute McGill University Health Centre; and Gerald Bronfman Department of Oncology, McGill University Health Centre, Montreal, Canada, [23]GTG-UK and Department of Oncology, University College London Hospital, London, United Kingdom, [24]GOG Foundation and Department of Obstetrics and Gynecology and Medicine, Division of Gynecologic Oncology, Perlmutter Cancer Center, NYU Langone Health, New York, United States of America, [25]Merck & Co., Inc., Rahway, United States of America, [26]GINECO and Université UniCaen, Centre François Baclesse, Caen, France, [27]GOG Foundation; The University of Arizona College of Medicine; Creighton University School of Medicine at Dignity Health St Joseph's Hospital and Medical Center; Maricopa Integrated Health System; and Arizona Center for Cancer Care, Phoenix, United States of America

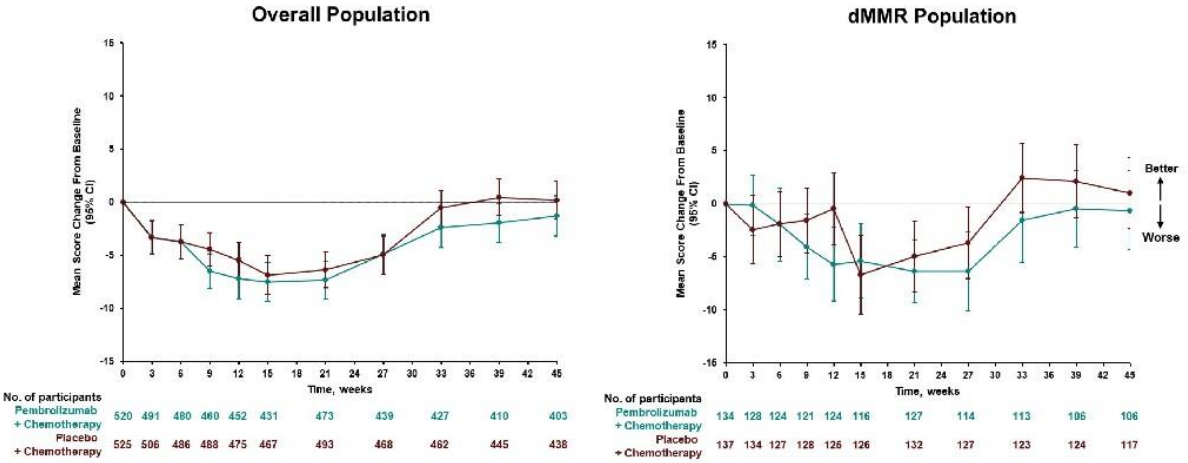
Introduction: In the phase 3 ENGOT-en11/GOG-3053/KEYNOTE-B21 study (NCT04634877) in participants with high-risk endometrial cancer (EC), addition of pembrolizumab to adjuvant carboplatin + paclitaxel ± radiotherapy (CTx±RT) did not improve DFS (primary endpoint) at interim analysis 3 (IA3) in the overall population. However, pembrolizumab led to clinically meaningful improvement in DFS in dMMR EC (HR, 0.31 [95% CI, 0.14–0.69]). Herein, we report health-related quality of life (HRQoL) in both populations at IA3.

Methods: Participants had newly diagnosed, high-risk EC following curative-intent surgery and no evidence of disease postoperatively. Participants were randomized to pembrolizumab 200 mg or placebo Q3W for 6 cycles added to CTx±RT, followed by pembrolizumab 400 mg or placebo Q6W for 6 cycles. Secondary endpoints included changes in EORTC QLQ-C30 GHS/QoL and physical functioning subscales and EORTC QLQ-EN24 symptom-specific scale; EQ-5D-5L VAS was an exploratory endpoint. Changes in HRQoL scores were analyzed from baseline to the latest time point at which completion/compliance was 60%/80% (week 45), using constrained longitudinal data analysis. Data cutoff was March 4, 2024.

Results: Of 1095 randomized participants, HRQoL analyses included 1083 and 280 participants in the overall and dMMR populations, respectively. There were no meaningful differences between treatment groups for change in HRQoL scores from baseline to week 45 in the overall or dMMR populations (**Table 1**). In both treatment arms, QLQ-C30 GHS/QoL scores decreased after initiation of CTx±RT, with scores trending back to baseline after completion of CTx±RT (**Figure 1**).

Conclusion/Implications: There were no meaningful differences between treatment groups in HRQoL in the overall or dMMR populations.

PRO Instrument	Direction of PRO Score Indicating Improvement	Overall Population			dMMR Population		
		Pembrolizumab + Chemotherapy	Placebo + Chemotherapy	Between-Group Difference, LS Mean (95% CI)	Pembrolizumab + Chemotherapy	Placebo + Chemotherapy	Between-Group Difference, LS Mean (95% CI)
QLQ-C30 GHS/QoL	↑	−1.57	−0.35	−1.21	−0.86	0.95	−1.81
		(−3.17 to 0.03)	(−1.91 to 1.20)	(−3.23 to 0.80)	(−3.94 to 2.21)	(−2.05 to 3.94)	(−5.75 to 2.12)
QLQ-C30 physical functioning	↑	−1.50	−1.41	−0.09	−0.53	−0.71	0.17
		(−2.85 to −0.16)	(−2.72 to −0.10)	(−1.91 to 1.74)	(−2.97 to 1.90)	(−3.08 to 1.66)	(−3.09 to 3.44)
QLQ-IN24 urological symptoms	↓	−1.16	−1.47	0.31	−1.60	−2.88	1.27
		(−2.46 to 0.14)	(−2.74 to −0.21)	(−1.34 to 1.97)	(−4.06 to 0.85)	(−5.27 to −0.48)	(−1.75 to 4.30)
EQ-5D-5L VAS	↑	−2.21	−0.04	−2.16	0.24	1.43	−1.18
		(−3.65 to −0.77)	(−1.46 to 1.37)	(−4.00 to −0.33)	(−2.43 to 2.92)	(−1.19 to 4.05)	(−4.56 to 2.20)



PR063 / #794

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

HETEROGENEOUS TUMOR IMMUNE ECOSYSTEMS IN EARLY- AND LATE-ONSET ENDOMETRIAL CANCER REFLECT HORMONAL AND CELLULAR INTERACTIONS

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Introduction: The incidence of endometrial cancer (EC) is increasing globally, especially among younger women. While estrogen promotes tumorigenesis and progesterone is used therapeutically, their effects on the tumor immune microenvironment (TIME) in early-onset EC (EEEC) are not well understood. Our study reveals that sex hormones may shape the immune contexture in EEEC, contributing to its distinct immunological features. Understanding this interplay could improve patient stratification and therapeutic strategies.

Methods: We analyzed single-cell RNA sequencing data from 37 late-onset EC (LEEC), 24 EEEC, and 27 normal endometrial samples. Fresh tumor tissues underwent flow cytometry to assess immune cell populations. Immunohistochemistry and multiplex immunofluorescence were performed on archived FFPE samples. Additionally, orthotopic EC models were established in 17-month-old and 12-week-old mice to explore hormone-related TIME modulation.

Results: Non-negative matrix factorization (NMF) identified an inflammation-dominated niche in LEEC, while EEEC samples distributed across multiple immune and stromal niches, indicating greater TIME complexity. EEEC tumors exhibited enriched B cells—particularly GC-like B and plasmablasts—as well as increased Th17 and neutrophils. In contrast, LEEC was characterized by higher levels of Tregs, exhausted T and inflammatory macrophages. Plasmablast expansion in EEEC may be driven by both the microenvironment and Tfh support. Flow cytometry confirmed greater B cells and Plasmablast in EEEC, while immunohistochemistry revealed lymphoid aggregates composed of B cells, $CD4^+$ T, and macrophages in younger patients.

Conclusion/Implications: EEEC exhibits a hormonally influenced, immunologically complex TIME distinct from LEEC. This interplay between sex hormones and immune contexture may inform the identification of EEEC patients best suited for fertility-sparing or immunomodulatory therapies.

PR064 / #526

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

IMPACT OF NATIONAL COMPREHENSIVE CANCER NETWORK (NCCN) 2023 GUIDELINES ON FIRST-LINE TREATMENT PATTERNS OF PATIENTS WITH ADVANCED OR RECURRENT ENDOMETRIAL CANCER IN THE UNITED STATES

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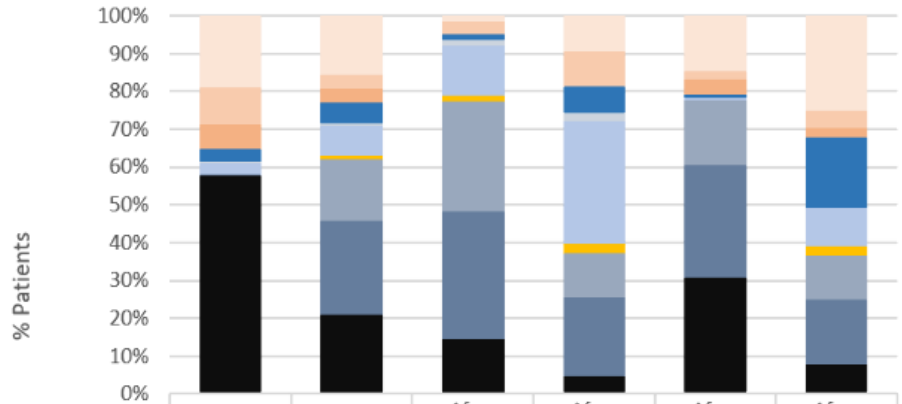
Introduction: NCCN guidelines for uterine neoplasms were updated in 04/2023 to include immunotherapy+carboplatin+paclitaxel combination (IO+platinum+taxane) as 1L treatment for advanced/recurrent endometrial cancer (aEC) based on the results of KEYNOTE868/NRG-GY018 and RUBY trials. The impact on 1L treatment patterns in the US is not well characterized.

Methods: This retrospective study used data from Flatiron Health Advanced EC Enhanced Data Mart (2013-2025). Females aged ≥18 with aEC receiving 1L treatment were included. Descriptive analyses were conducted to report patient characteristics and treatment patterns before and after NCCN guideline updates.

Results: The cohort included 1,645 (51%) advanced, and 1,572 (49%) recurrent endometrial cancer patients. The mean age at aEC diagnosis was 66.4 years, majority were white (58.6%) and 24% among those with molecular data had MSI-H/dMMR tumors. At diagnosis, 47.7% had stage IVB EC. The most prevalent histology was endometrioid carcinoma (45.9%), followed by serous carcinoma (28.4%). Post-NCCN's 2023 update, use of platinum+taxane, decreased from 57.7% to 21%, and was replaced by IO+platinum+taxane (**Figure 1**)**.** Uptake of IO+platinum+taxane in advanced/MSI-H/dMMR, advanced/MSS/pMMR, recurrent/MSI-H/dMMR, and recurrent/MSS/pMMR was 64.5%, 47%, 34.9%, and 31.3%, respectively. Among recurrent/MSI-H/dMMR patients, the uptake of IO monotherapy was 34.9%, and among recurrent/MSS/pMMR, the uptake of IO+TKI was 18.8%.

Figure 1: 1L Treatment Patterns among Patients with Advanced and Recurrent Endometrial Cancer before and after 2023 NCCN Guidelines Update



	Before NCCN Apr 2023	After NCCN Apr 2023: All Patients	After NCCN: Advanced + MSI-H and/or dMMR	After NCCN: Recurrent + MSI-H and/or dMMR	After NCCN: Advanced + MSS and/or pMMR	After NCCN: Recurrent + MSS and/or pMMR
Other	502	90	1	4	29	32
Hormonal Therapy	255	21	2	4	4	6
Anti-VEGF (Bevacizumab) Therapy (+/- chemo)	176	20	0	0	8	3
Immunotherapy + TKI	88	31	1	3	2	24
Other IO Monotherapy	4	5	1	1	0	0
Pembrolizumab Monotherapy	88	44	8	14	1	13
Other IO+carboplatin+Paclitaxel	0	7	1	1	0	3
Dostarlimab + Carboplatin + Paclitaxel	0	92	18	5	34	15
Pembrolizumab + Carboplatin + Paclitaxel	5	142	21	9	59	22
Platinum + Taxane	1527	120	9	2	61	10

Conclusion/Implications: Use of IO+platinum+taxane increased in 1L aEC after NCCN guidelines update in 04/2023. The usage of IO+platinum+taxane varied by advanced/recurrent and MSI-H/MMR status. In addition, IO+platinum+taxane, IO monotherapy and IO+TKI were also prominent choices for recurrent/MSI-H/dMMR patients, and recurrent/MSS/pMMR patients, respectively. Overall, IO-based therapies are becoming standard of care in 1L aEC.

PR065 / #528

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

REAL-WORLD EFFECTIVENESS OF FIRST-LINE PEMBROLIZUMAB MONOTHERAPY AMONG MSI-H/DMMR ADVANCED OR RECURRENT ENDOMETRIAL CANCER PATIENTS IN THE US

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Introduction: Pembrolizumab monotherapy (PEM) has shown compelling tumor activity in previously treated MSI-H/dMMR endometrial cancer (KEYNOTE-158). The KEYNOTE-C93 trial evaluates the efficacy of PEM vs. carboplatin + paclitaxel (C+P) in advanced and recurrent endometrial cancer (aEC) in 1L settings among patients with MSI-H/dMMR tumors. This study assesses the real-world effectiveness of PEM vs. C+P in patients with MSI-H/dMMR aEC in this setting.

Methods: This retrospective study included aEC women aged ≥18 years with MSI-H/dMMR tumors initiating PEM or C+P in 1L between 05/01/2017-02/28/2025 in the Flatiron Health aEC Enhanced Data Mart. Kaplan-Meier analyses assessed real-world time on treatment (rwTOT) and time to next line of therapy (2L) or death (rwTTNT). Outcomes were assessed (descriptive) in all patients and those following prior neoadjuvant/adjuvant platinum therapy (FPPT).

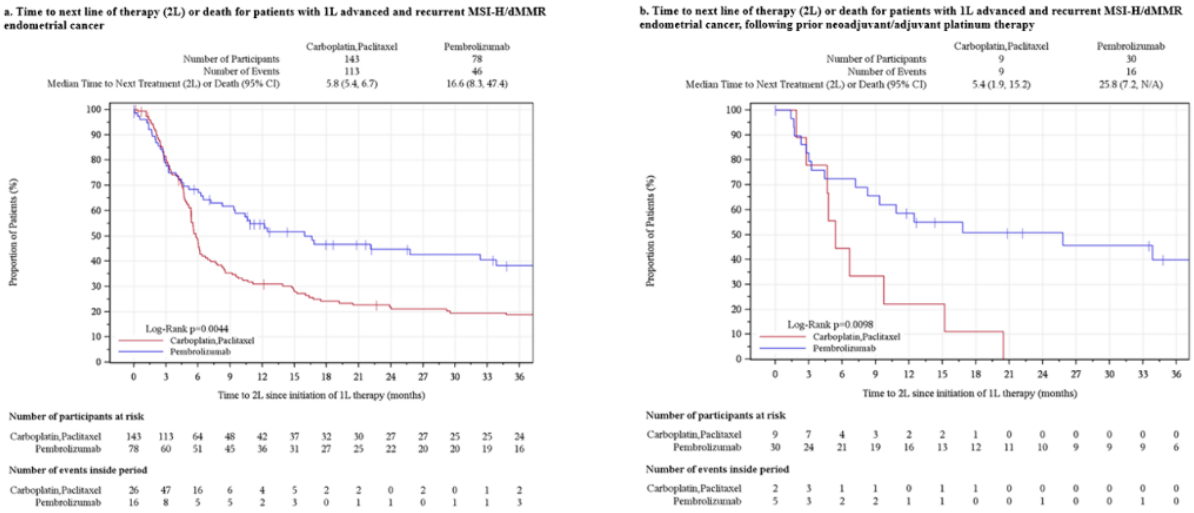
Results: Of 221 eligible patients with MSI-H/dMMR tumors, 78 (35%) initiated 1L PEM. For patients treated with PEM or C+P, median age at aEC diagnosis was 70 and 65 years, proportion white was 56% and 68%, and proportion recurrent was 77% and 47%, respectively. Overall, median (95% confidence interval) rwToT and rwTTNT was 9.0 (5.1-14.5) (**Table 1**) and 16.6 (8.3-47.4) months for PEM (**Figure 1a**) and 3.5 (3.4-3.5) and 5.8 months (5.4-6.7) for C+P in all patients. Results for patients FPPT were also favorable to pembrolizumab (**Figure 1b**).

Table 1. Time on Treatment and Time to Next Line of Therapy (2L) or Death for patients with 1L advanced and recurrent MSI-H/dMMR endometrial cancer

Patient Population	Treatment	rwTOT (months) Median (95% CI) *N*	rwTTNT (months) Median (95% CI) *N*
All-patients	**Pembrolizumab monotherapy**	9.0 (5.1, 14.5) *78*	16.6 (8.3, 47.4) *78*
	Carboplatin + Paclitaxel combination	3.5 (3.4, 3.5) *143*	5.8 (5.4, 6.7) *143*
Patients following prior neoadjuvant/ adjuvant platinum therapy	**Pembrolizumab monotherapy**	12.2 (4.9, 23.5) *30*	25.8 (7.2, N/A) *30*
	Carboplatin + Paclitaxel combination	2.8 (0, 3.7) *9*	5.4 (1.9, 15.2) *9*

rwTOT – real-world time on treatment
rwTTNT – real-world time to next line of therapy (2L) or death

Figure 1. Time to Next Line of Therapy (2L) or Death for all patients with 1L advanced and recurrent MSI-H/dMMR endometrial cancer (a) and those following prior neoadjuvant/adjuvant platinum therapy (b)



Conclusion/Implications: Real-world evidence suggests that among patients with MSI-H/dMMR aEC, 1L pembrolizumab monotherapy provides considerable clinical benefits in all patients, including those following prior neoadjuvant/adjuvant platinum therapy. This may provide a chemo-free option for these patients.

PR066 / #556

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

REAL-WORLD CLINICAL OUTCOMES OF LENVATINIB IN COMBINATION WITH PEMBROLIZUMAB FOR THE TREATMENT OF PATIENTS WITH NON-MSI-H/PMMR RECURRENT OR ADVANCED ENDOMETRIAL CANCER IN THE UNITED STATES

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Introduction: The KEYNOTE-775/Study-309 trial demonstrated statistically significantly improved outcomes with lenvatinib plus pembrolizumab (LEN+PEM) vs doxorubicin/paclitaxel chemotherapy (CT) in advanced/recurrent endometrial cancer (aEC) patients following previous systemic therapy (FPST). This study evaluates real-world effectiveness of LEN+PEM vs CT FPST in patients with non-MSI-H/pMMR aEC.

Methods: A retrospective medical record review was conducted to evaluate comparative effectiveness (real-world[rw] PFS, rwORR, OS) of LEN+PEM vs CT. Patients diagnosed with non-MSI-H/pMMR aEC initiating LEN+PEM or CT between 17Sep2019 and 31Aug2021 after progression FPST were eligible. Both cohorts were balanced on demographics, physician specialty, tumor histology, performance status (PS) at index, BMI, and number of prior therapy lines using stabilized inverse probability of treatment weight (sIPTW) adjustment. rwPFS and OS were estimated using sIPTW-adjusted Kaplan-Meier method and multivariable Cox regression.

Results: In the LEN+PEM (n=97) and CT (n=107) cohorts, median age was 57.7 and 57.1 years, 61.9% and 60.7% patients were White, 83.5% and 67.3% had endometrioid carcinoma, 58.8% and 43.0% had PS 0/1, respectively. The sIPTW-adjusted analysis favored LEN+PEM vs CT with a HR (95%CI) of 0.59 (0.38-0.91) for rwPFS (median: 13.1 [9.0-15.4] vs 8.4 [5.8-11.1] months), 0.69 (0.45-1.05) for OS (median: 19.6 [16.9-26.3] vs 13.5 [11.9-17.6] months), and OR of 2.40 (1.31-4.40) for rwORR (46.3% vs 26.1%). The multivariable Cox regression findings were consistent with the sIPTW-adjusted analysis. **Figures: Real-world PFS and OS by cohorts**

Figure 1a. Progression-free survival from LEN+PEM or CT therapy initiation

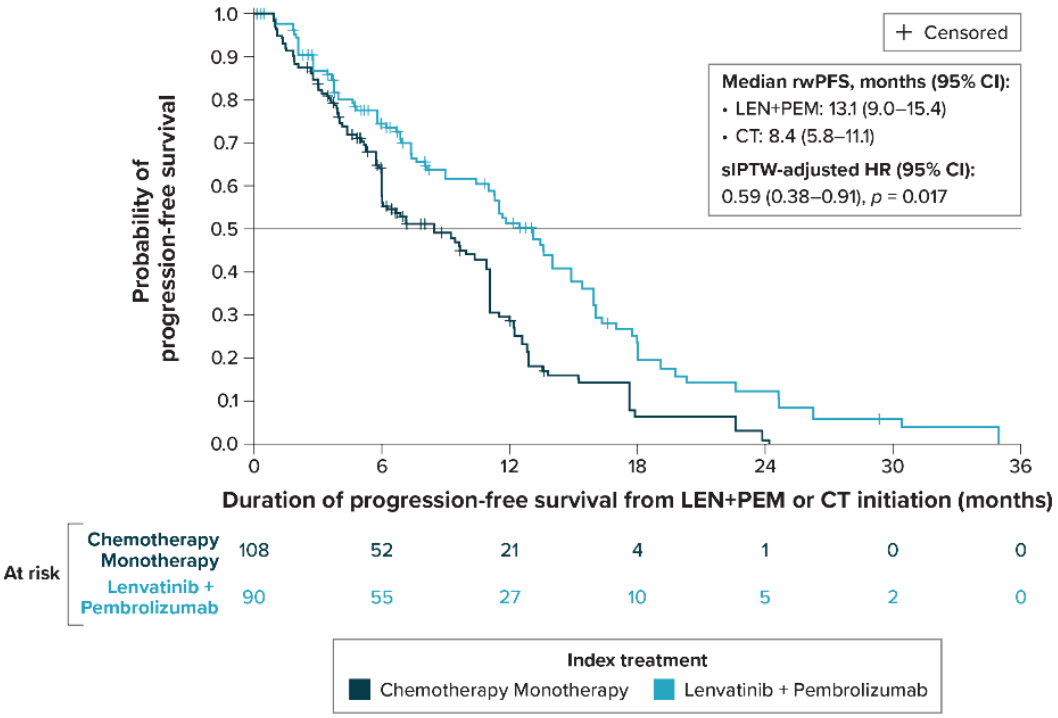
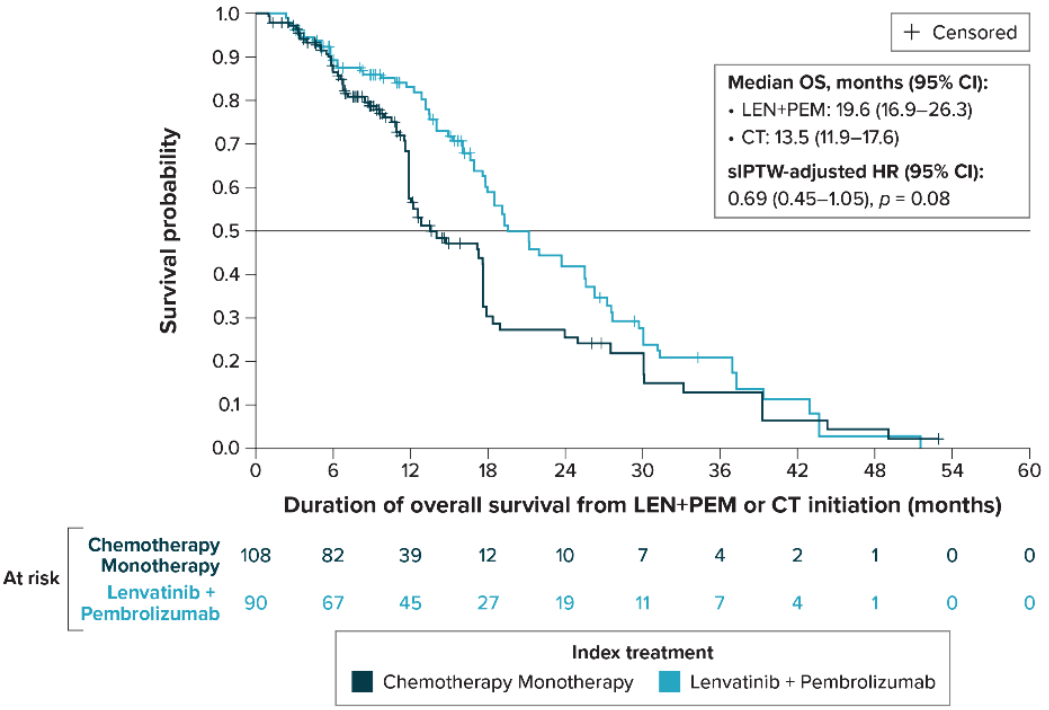


Figure 1b. Overall survival from LEN+PEM or CT therapy initiation



Conclusion/Implications: This real-world study demonstrated statistically significant clinical benefit of LEN+PEM vs CT in non-MSI-H/pMMR aEC patients corroborating superior LEN+PEM efficacy over CT in aEC patients FPST from the KEYNOTE-775/Study-309 trial.

PR067 / #599

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

INSULIN RESISTANCE AND IGF PATHWAY: IMPLICATIONS FOR ENDOMETRIOID ENDOMETRIAL CANCER PROGRESSION AND SURVIVAL

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Introduction: Insulin-like growth factor 1 (IGF1) and its binding protein IGFBP1 are crucial in cancer progression. Insulin resistance and an increased waist-hip ratio (WHR), known risk factors for endometrioid endometrial cancer (EEC), may modulate their local expression. This study evaluates IGF1 and IGFBP1 protein expressions in endometrial tissues, correlating them with insulin resistance, WHR, and patient survival outcomes.

Methods: Tissue microarrays were prepared from endometrial samples of 25 EEC patients and 19 non-cancer controls. Immunohistochemistry was used to determine IGF1 and IGFBP1 expressions. Insulin resistance was assessed using the homeostasis model assessment (HOMA-IR), based on fasting insulin and glucose measurements. Data correlations with survival outcomes, tumour stage, grade, and WHR were analysed.

Results: IGF1 expression was significantly elevated in EEC tissues (P=0.001), whereas IGFBP1 expression was notably decreased (P=0.045). Elevated IGF1 correlated with advanced tumour stage, grade, deep myometrial invasion, and lymphovascular space invasion (LVSI) (P<0.050). EEC patients showed higher fasting insulin levels (18.27±22.07 vs. 11.99±7.42 uIU/mL; P<0.05). Increased IGF1 expression was significantly linked to insulin resistance (P<0.05), but not WHR. High IGF1 expression predicted poorer survival outcomes, unlike IGFBP1.

Conclusion/Implications: This study underscores the critical relationship between insulin resistance and IGF1 expression in EEC, suggesting its potential as a biomarker for disease progression and prognosis. Our findings highlight avenues for personalized clinical management and risk stratification in endometrial cancer.

PR068 / #518

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

SURVIVAL AND SAFETY OUTCOMES IN PART 1 OF THE ENGOT-EN6-NSGO/GOG-3031/RUBY TRIAL OF DOSTARLIMAB PLUS CARBOPLATIN-PACLITAXEL IN THE PRESENCE OF COMMON COMORBIDITIES

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Introduction: Dostarlimab plus carboplatin-paclitaxel (CP) is the only immunotherapy plus chemotherapy combination to report significant overall survival (OS) benefits in primary advanced or recurrent endometrial cancer (pA/rEC) as seen in Part 1 of the phase 3 RUBY trial (NCT03981796). Patients with pA/rEC often have multiple comorbidities that can complicate treatment and may impact survival outcomes. We present a post-hoc analysis of survival and safety in a subgroup of patients from Part 1 of the RUBY trial with commonly observed comorbidities.

Methods: Patients were randomized 1:1 to dostarlimab+CP or placebo+CP Q3W (6 cycles) followed by dostarlimab or placebo Q6W for ≤3 years. Progression-free survival (PFS; data from 28Sep2022), OS, and safety (data from 22Sep2023) were analyzed in patients with ≥1 of the most common comorbidities (>5% in either arm) at study enrollment.

Results: Consistent with expectations, most patients had ≥1 of the most common comorbidities (Table 1). In this subgroup of patients, PFS and OS were similar to the primary efficacy analyses; no meaningful increases in adverse events were seen relative to the overall trial population (Table 2).

Conclusion/Implications: Survival outcomes demonstrated meaningful improvements with a similar risk of adverse events in patients with common comorbidities relative to the overall RUBY population. This suggests the generalizability and applicability of the RUBY efficacy results to the pA/rEC population and supports frontline use of dostarlimab+CP as a standard of care in all patients with pA/rEC regardless of the presence of common comorbidities.

Table 1: Most common comorbidities		
n (%)	Dostarlimab+CP (N=245)	Placebo+CP (N=249)
Any comorbidity	200 (81.6)	207 (83.1)
Hypertension	137 (55.9)	136 (54.6)
Anxiety	62 (25.3)	58 (23.3)
Fatigue	52 (21.2)	50 (20.1)
Hyperlipidemia	49 (20.0)	47 (18.9)
Gastroesophageal reflux disease	39 (15.9)	46 (18.5)
Depression	39 (15.9)	36 (14.5)
Insomnia	32 (13.1)	38 (15.3)
Hypothyroidism	37 (15.1)	31 (12.4)
Anemia	26 (10.6)	29 (11.6)
Hypercholesterolemia	22 (9.0)	31 (12.4)
Arthralgia	15 (6.1)	23 (9.2)

Table 2: Efficacy and Safety				
Efficacy				
	RUBY trial patients with any common baseline comorbidity		RUBY trial population	
	Dostarlimab+CP N=200	Placebo+CP N=207	Dostarlimab+CP N=245	Placebo+CP N=249
PFS, median (95%CI), mo	12.2 (9.7–19.1)	7.8 (7.5–8.3)	11.8 (9.6–17.1)	7.9 (7.6–9.5)
Probability of PFS (95% CI), %				
12 mo	50.5 (42.8–57.7)	26.6 (20.3–33.3)	48.2 (41.3–54.8)	29.0 (23.0–35.2)
24 mo	36.2 (28.6–43.8)	15.0 (9.9–21.0)	36.1 (29.3–42.9)	18.1 (13.0–23.9)
OS, median (95% CI), mo	44.6 (36.2–NR)	26.1 (21.5–32.9)	44.6 (32.6–NR)	28.2 (22.1–35.6)
Probability of OS (95% CI), %				
24 mo	72.3 (65.5–78.1)	52.1 (45.0–58.7)	70.1 (63.8–75.5)	54.3 (47.8–60.3)
36 mo	58.0 (50.5–64.7)	39.8 (32.7–46.8)	54.9 (48.2–61.2)	42.9 (36.3–49.3)
Safety[a]				
n (%)	Dostarlimab+CP (N=200)	Placebo+CP (N=207)	Dostarlimab+CP (N=241)	Placebo+CP (N=246)
Any AE	200 (100)	205 (99.0)	241 (100)	246 (100)
Any irAE	119 (59.5)	80 (38.6)	141 (58.5)	91 (37.0)
Any-grade AEs occurring in >20% of patients[b]				
Nausea	114 (57.0)	102 (49.3)	131 (54.4)	114 (46.3)
Alopecia	112 (56.0)	101 (48.8)	130 (53.9)	123 (50.0)
Fatigue	109 (54.5)	116 (56.0)	126 (52.3)	135 (54.9)
Neuropathy peripheral	95 (47.5)	91 (44.0)	106 (44.0)	103 (41.9)
Anemia	78 (39.0)	96 (46.4)	91 (37.8)	105 (42.7)
Arthralgia	76 (38.0)	72 (34.8)	90 (37.3)	87 (35.4)
Constipation	70 (35.0)	78 (37.7)	84 (34.9)	89 (36.2)
Diarrhea	62 (31.0)	65 (31.4)	76 (31.5)	72 (29.3)
Hypomagnesemia	51 (25.5)	69 (33.3)	53 (22.0)	71 (28.9)
Myalgia	49 (24.5)	53 (25.6)	64 (26.6)	68 (27.6)
irAEs occurring in >5% of patients in either arm[c,d]				
Arthralgia	29 (14.5)	27 (13.0)	36 (14.9)	32 (13.0)
Rash	20 (10.0)	6 (2.9)	22 (9.1)	6 (2.4)
Infusion-related reaction	24 (12.0)	25 (12.1)	31 (12.9)	30 (12.2)
Hypothyroidism	21 (10.5)	8 (3.9)	29 (12.0)	8 (3.3)
Alanine aminotransferase increased	15 (7.5)	3 (1.4)	15 (6.2)	4 (1.6)

[a]Safety data in this table for patients with any common baseline comorbidity is reported for the efficacy population, which includes all patients who were randomized and had any of the listed comorbidities at baseline; safety data in this table for the overall RUBY trial population is reported for the safety analysis population, which includes all patients who received any study treatment.
[b]Events occurring in >20% of patients in the RUBY trial overall population.
[c]irAEs were defined as events from a predefined list occurring at grade 2 and above.
[d]Events occurring in >5% of patients in either arm of the RUBY trial overall population.
AE, adverse event; irAE, immune-related adverse event; NR, not reached.

PR069 / #906

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

IDENTIFYING RESPONDERS TO ENZALUTAMIDE IN ADVANCED ENDOMETRIAL CANCER: THE ENPAC STUDY

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Introduction: The androgen receptor (AR) is expressed in up to 90% of endometrioid endometrial carcinoma (EEC). Enzalutamide (AR antagonist) blocks AR binding to DNA. In our prior phase II study, we reported substantial efficacy of enzalutamide in combination with paclitaxel and carboplatin in patients with advanced/recurrent EEC. Here, we investigate molecular correlates of treatment response.

Methods: 52 patients with measurable advanced/recurrent EEC received single-agent enzalutamide for 28 days followed by combination therapy with carboplatin, paclitaxel, and enzalutamide. Paired pre- and on-treatment tumor biopsies were analyzed using

spatial transcriptomics (Visium-10X Genomics), and quantitative mass spectrometry-based proteomics.

Results: Among 40 evaluable patients, the confirmed response rate was 67.5% (95% CI 50.87–81.43%), with a median PFS of 13.27 months (95% CI 10.58–25.49). Spatial transcriptomic analysis revealed that responders exhibited reduced cell cycle activity and increased epithelial senescence signatures following treatment. In contrast, non-responders showed persistent cell cycle activation and enrichment of EMT-related pathways, suggesting differential adaptive responses to therapy. Proteomic profiling identified 43 differentially expressed proteins in pre-treatment samples and 37 in on-treatment biopsies, distinguishing responders from non-responders. Pre-treated tumors from responders were enriched for immune-related pathways and showed elevated levels of several AR-responsive proteins, including LCP1. AR transcript levels decreased in responders post-treatment, whereas non-responders showed stable or increased expression. However, paired analyses indicated heterogeneous AR modulation across the cohort.

Conclusion/Implications: These data indicate pre-treatment expression of AR responsive genes and immune-related pathways may predict response to enzalutamide combined with chemotherapy. These candidate biomarkers warrant further validation in EEC.

PR070 / #573

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

NO MYOINVASION, NO DANGER? THE PROGNOSTIC VALUE OF P53 IN NON-MYOINVASIVE ENDOMETRIAL CANCER

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Introduction: The role of p53 abnormality in endometrial cancer confined to the endometrium remains unclear, with limited data resulting in inconsistent management strategies. This study aimed to evaluate the impact of p53-abnormal status in non-myoinvasive endometrial cancer.

Methods: We performed a retrospective analysis of endometrial cancer patients with <50% myometrial invasion, no cervical invasion and known p53 status (determined with immunohistochemistry) who underwent complete surgical staging at Mayo Clinic Rochester between 1999 and 2021. Patients were classified into four groups according to p53 status and presence of myoinvasion. Kaplan-Meier curves and log-rank p-values were reported for recurrence-free (RFS) and overall survival (OS).

Results: Among 426 patients, 73 had non-myoinvasive p53-abnormal (p53abn) tumors, with a 9.6% recurrence rate.
Overall, the presence of myoinvasion was not associated with significant differences in RFS (p=0.95) or OS (p=0.14). In contrast, patients with p53abn tumors had significantly shorter RFS and OS compared to those with p53 wild-type (p53wt) tumors (both p<0.01).
Comparing p53abn non-myoinvasive tumors and p53wt tumors (regardless of myoinvasion), no significant differences in RFS were observed (p=0.37). However, OS was significantly worse in the p53abn non-myoinvasive group (p=0.02).
Within the p53abn subgroup, the presence of myometrial invasion was associated with a significantly lower RFS compared to non-myoinvasive tumors (p=0.01), while OS remained similar between these groups (p=0.47). (Figure 1 and 2)

Figure 1
Kaplan-Meier curves for overall survival according to p53status and presence of myometrial invasion.

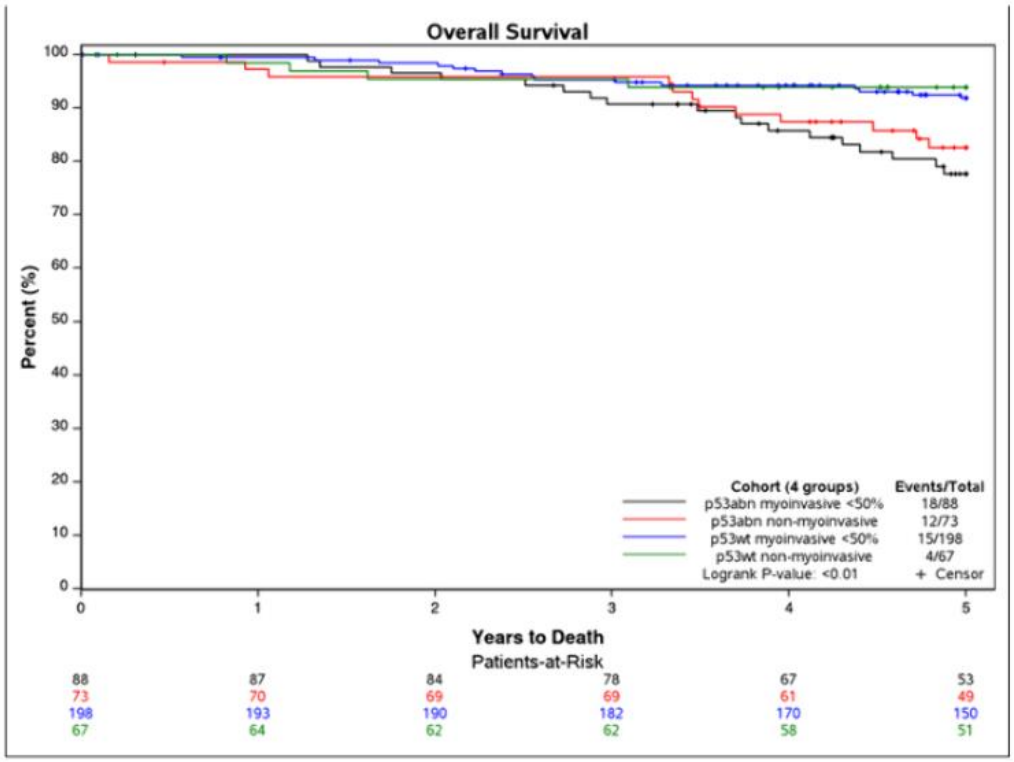
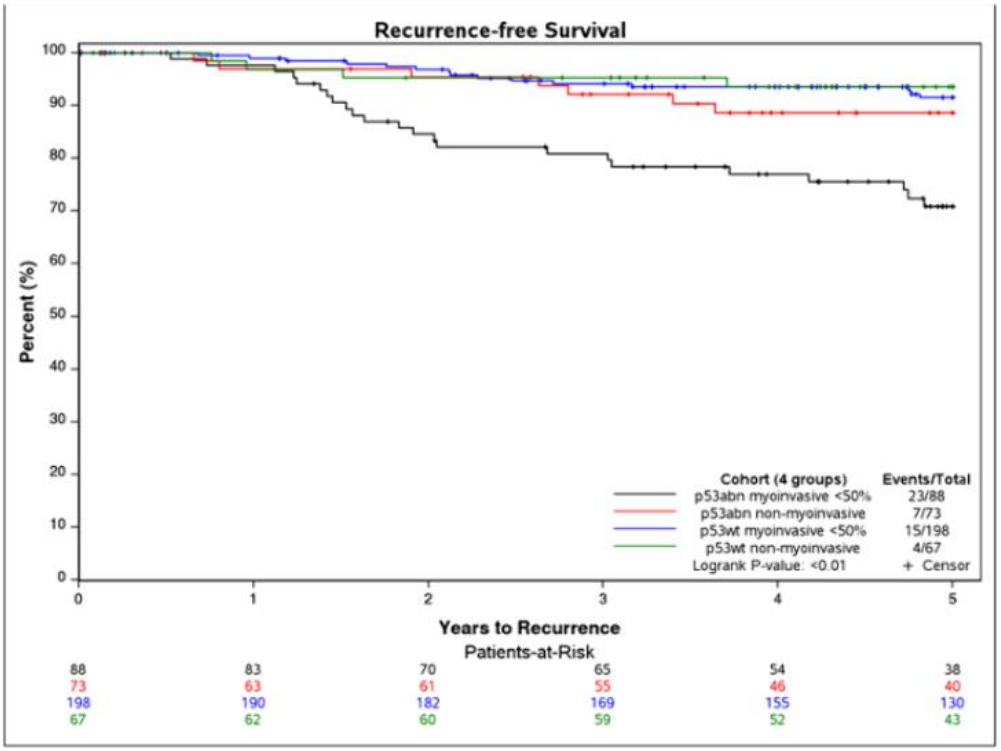


Figure 2
Kaplan-Meier curves for recurrence-free survival according to p53status and presence of myometrial invasion.



Conclusion/Implications: In this retrospective analysis, p53abn status is associated with poorer oncologic outcomes, with reduced survival observed in p53-abnormal patients regardless of the presence of myoinvasion.

PR071 / #772

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

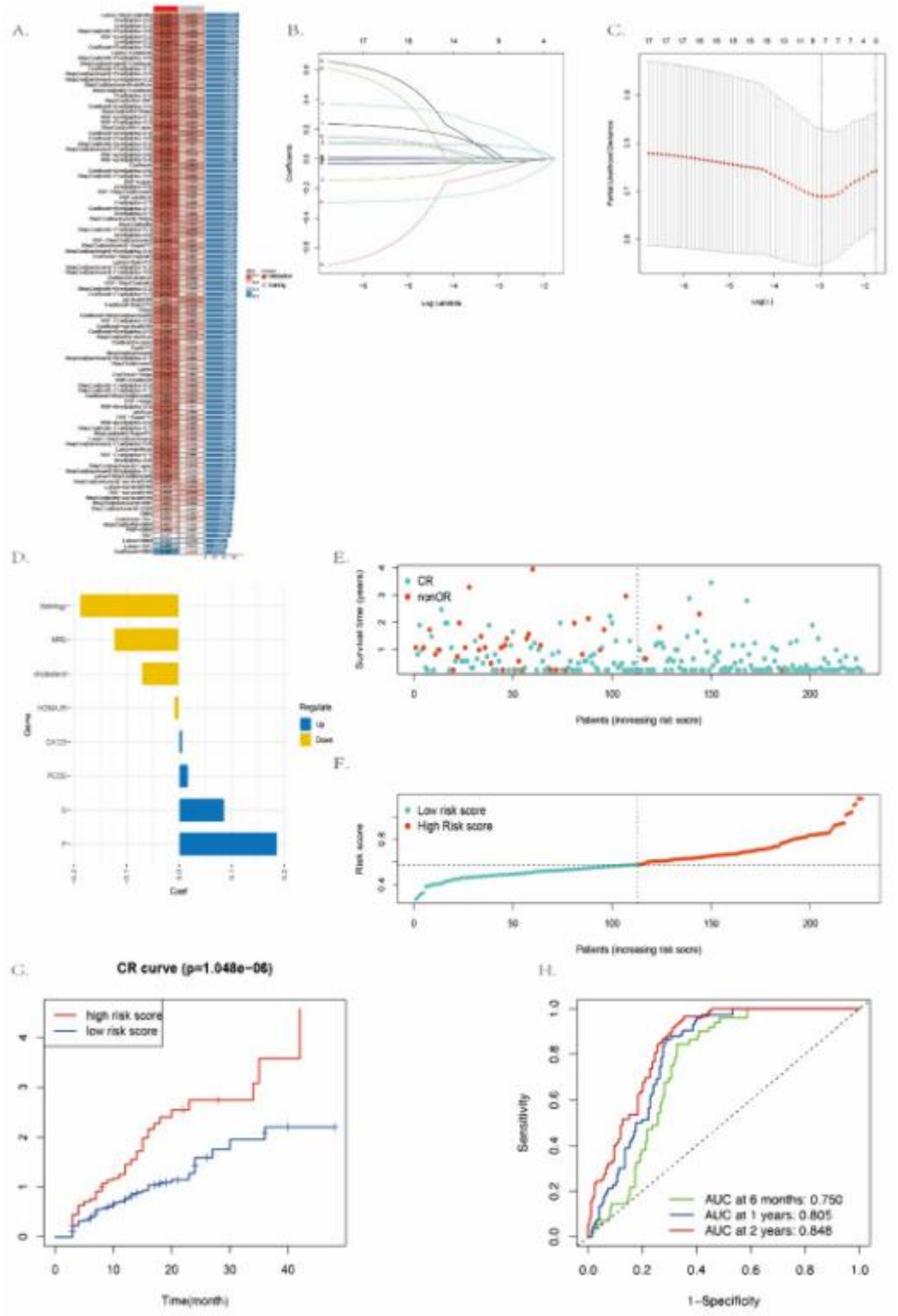
IMPACT OF METABOLIC RISK SCORE ON THE PROGNOSIS OF ENDOMETRIAL CANCER NURSERY PATIENTS: DEVELOPMENT AND VALIDATION OF A MACHINE LEARNING MODEL

Jingyuan Wang, Xingchen Li, Jianliu Wang
Peking University People's Hospital, Beijing, China

Introduction: This study evaluated the predictive value of metabolic risk score (MRS) for complete remission in patients with endometrial cancer treated with fertility-sparing treatment (FST).

Methods: This study included 340 endometrial cancer patients treated with FST. Patients were divided into a training and a validation group in a ratio of 2:1. The development of 101 predictive models was achieved through the implementation of a LOOCV framework, with the objective of identifying combinations that exhibited the highest C-index. The predictive accuracy was estimated through the utilization of DCA and ROC curves. Furthermore, Kaplan-Meier curves were employed to analyze complete remission rates in diverse stratified population.

Results: The model was developed to predict the probability of complete remission based on independent predictors including MRS, gestation, pregnancy, cholesterol, and histology. ROC curve analysis demonstrated that the training and validation groups were effective predictors of complete remission at 6-month, 1-year, and 2-year follow-ups. In the training group, the AUC values were 0.750, 0.805, and 0.848, respectively. Subsequently, patients were divided into two groups of high-risk and low-risk score based on regression coefficients, and the Kaplan-Meier curves confirmed that FST patients with high-risk scores had a greater likelihood of complete remission, and also showed significant differences in different population strata. It is noteworthy that in Model 1 without MRS, the predictive accuracy AUC in the training cohort decreased from 0.894 to 0.821, and the validation cohort exhibited a similar decrease in AUC values.



Conclusion/Implications: The MRS-based prognostic model for endometrial cancer patients receiving FST has shown enhanced predictive performance.

PR072 / #798

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

DEVELOPMENT AND VALIDATION OF A NOMOGRAM BASED ON IMMUNOHISTOCHEMISTRY SCORE FOR ASSESSING LYMPHOVASCULAR SPACE INVASION IN PATIENTS WITH ENDOMETRIAL CANCER

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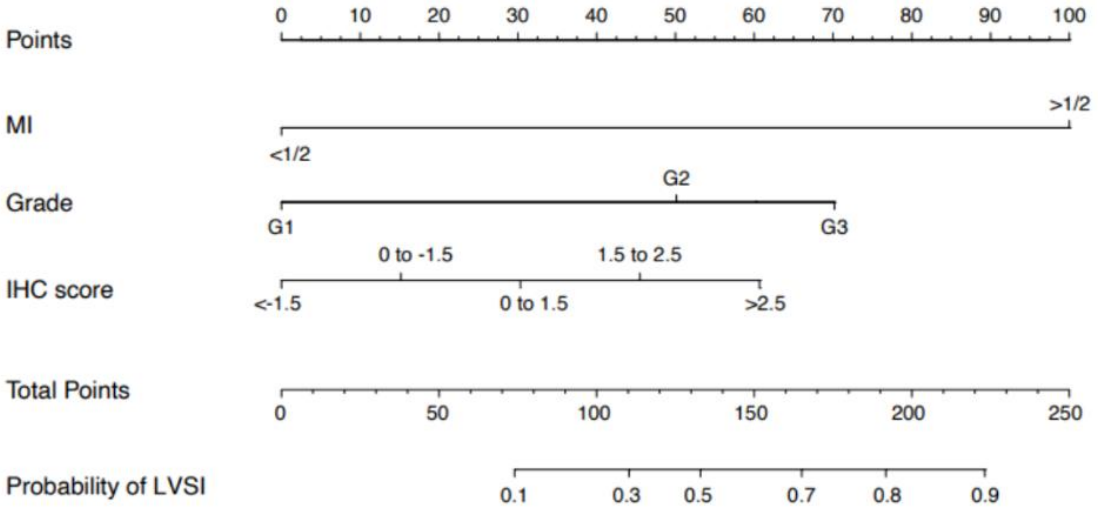
Introduction: This study assessed the predictive value of the immunohistochemistry score (IHC score) for lymphovascular space invasion (LVSI) in endometrial cancer (EC) patients.

Methods: We included 1076 patients who were diagnosed with EC between January 2006 and December 2020 in Peking University People's Hospital and they were divided into the training and internal validation cohorts in a ratio of 2:1. And 367 EC patients in Caner Hospital Chinese Academy of Medical Sciences were included into the external cohort. Data on clinicopathological indicators were collected. Univariable and multivariable logistic regression analysis was used to define candidate factors for LVSI. A backward stepwise selection was then used to select variables for inclusion in a nomogram. The performance of the nomogram was evaluated by discrimination, calibration, and clinical usefulness.

Results: Independent predictors of LVSI included differentiation grades, histology, myometrial invasion, and IHC score in the training cohort. A nomogram was established to predict a patient's probability of developing LVSI based on these factors. The ROC curve analysis showed that an IHC score-based nomogram significantly improved the efficiency of diagnosing LVSI compared with the nomogram based on clinicopathological factors without IHC score($p = 0.037$ and $p = 0.038$ in the training and validation cohort, respectively). Subsequently, the calibration plot showed a favorable consistency in both groups. Moreover, decision curve analysis showed the great clinical benefit obtained from the application of our nomogram. Furthermore, external validation showed an equally satisfactory outcome of the predictive value of IHC score.



Conclusion/Implications: IHC score-based nomogram are useful for predicting LVSI in patients with EC.

PR073 / #791

Topic: *AS06. Tumor Types / AS06c. Endometrial & Uterine Corpus Cancers*

P53 IHC SUBCLONAL EXPRESSION PREDICTS BETTER PROGNOSIS COMPARED TO OTHER ABNORMAL PATTERNS IN ENDOMETRIAL CARCINOMA

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Introduction: Patients with endometrial carcinoma can be classified based on molecular subtypes, among which some patients exhibit multiple-classifier endometrial carcinomas. Abnormal p53 subclonal immunohistochemical staining may be observed in multiple-classifier endometrial carcinomas, but the significance of p53 subclonal expression remains unclear. Our aim is to accurately identify subclonal p53 expression in endometrial carcinoma and evaluate its value in predicting prognosis.

Methods: The clinical and pathological data of patients with endometrial carcinoma were collected in the Affiliated Hospital of Qingdao University between December 2019 and September 2024. Among them, 284 cases with both p53 immunohistochemistry and TP53 NGS results were further analyzed.

Results: In 284 cases of endometrial carcinoma, 36 cases(12.7%) were multiple-classifier, including MMRd-p53abn 26 cases, POLEmut-MMRd 1 case and POLEmut-p53abn 9 cases. p53 subclonal expression pattern was observed in 21 patients (21/284,7.4%), of which 52.4% (11/21) was patients with multiple-classifier endometrial carcinoma, including 2 cases of POLEmut-p53abn and 9 cases of MMRd-p53abn. The remaining 10 patients were single-classifier, MMRd 1 case, p53abn 8 cases and NSMP 1 case, respectively.The most common subclonal staining pattern was overexpression+wild-type (16/21, 76.2%), followed by overexpression+non-expression (5/21, 23.8%). P53 subclonal expression in endometrial carcinoma was associated with better prognosis compared to other p53 immunohistochemical abnormal patterns (p<0.05). Moreover, after excluding 12 POLEmut/MMRd patients, P53 subclonal expression in endometrial carcinoma also showed better prognosis compared to other p53 immunohistochemical abnormal patterns (p<0.05).

Conclusion/Implications: P53 immunohistochemical subclonal expression is commonly seen in multiple-classifier endometrial carcinomas. p53 subclonal expression may suggest a relatively better prognosis compared with other abnormal expression patterns.

PR074 / #912

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

ROUTINE IMAGING OR SYMPTOMATIC FOLLOW-UP AFTER PRIMARY TREATMENT OF ADVANCED EPITHELIAL OVARIAN CANCER: ROSA 1 STUDY

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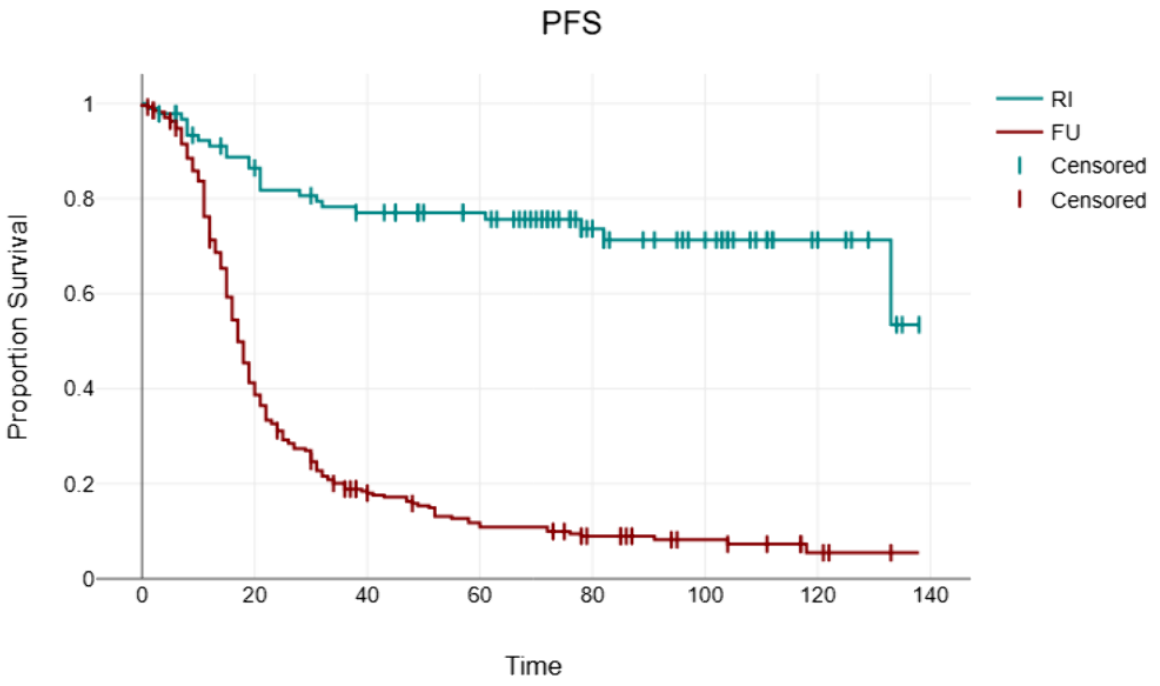
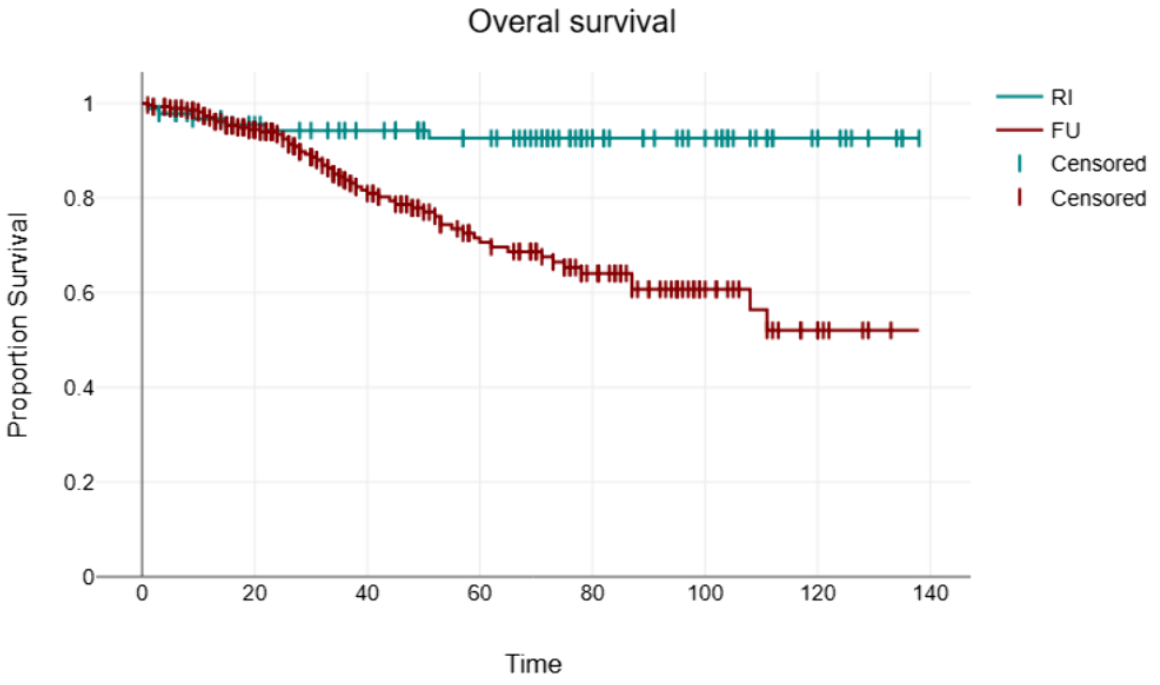
Introduction: Advanced epithelial ovarian cancer exhibits high recurrence rates of 70–80% despite maximal cytoreductive surgery and platinum-based chemotherapy. The DESKTOP III trial demonstrated that secondary cytoreductive surgery confers a survival advantage in platinum-sensitive recurrences when macroscopic complete resection is achieved. Hypothetically, more patients could benefit from surgery if recurrence is detected at an early stage by routine imaging. However, existing guidelines provide inconsistent recommendations regarding routine imaging during follow-up after primary treatment for advanced EOC, resulting in substantial variation in surveillance practices across centers worldwide.

Methods: This was a retrospective review of 446 patients with advanced epithelial ovarian cancer treated between 2013 and 2018, in whom recurrence was determined from medical records. Patients were stratified based on postoperative follow-up strategy: symptomatic follow-up or routine imaging. PFS and OS were estimated using Kaplan-Meier curves and compared using the log-rank test. Multivariable Cox proportional hazards models were used to assess the independent association between follow-up strategy and OS.

Results: The median follow-up duration was 40 months (IQR, 30–58 months). Of the total cohort, 273 patients (61%) underwent symptomatic follow-up CT scan, while 92 patients (21%) received routine imaging surveillance. Median overall survival (OS) was not reached in either group; however, both OS and progression-free survival (PFS) were significantly associated with the routine imaging group ($P < 0.001$). Routine imaging was associated with prolonged OS (adjusted hazard ratio, 0.75; 95% CI, 0.56-.99; $P = .04$).





Conclusion/Implications: Routine follow-up imaging following completion of primary treatment for patients with advanced ovarian cancer was associated with prolonged OS and PFS

PR075 / #325

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

FIRST-LINE ANLOTINIB COMBINED WITH CARBOPLATIN/PACLITAXEL FOLLOWED BY ANLOTINIB MAINTENANCE THERAPY IN ADVANCED OVARIAN CANCER: PRELIMINARY EFFICACY AND SAFETY FROM ALTER-GO-010 PHASE II MULTICENTER TRIAL

Wenjun Cheng[1], Yi Jiang[1], Yingchun Gao[2], Youguo Chen[3], Yunlang Cai[4], Jinling Xue[5], Huaijun Zhou[6], Jinjin Yu[7], Jinhua Zhou[3]
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Introduction: Several studies have shown that antiangiogenic drugs combined with chemotherapy as first-line treatment, followed by maintenance therapy with antiangiogenic agents, significantly improve outcomes for ovarian cance r(OC) patients. This single-arm, multicenter, phase II study aims to evaluate the efficacy and safety of anlotinib combined with carboplatin/paclitaxel as first-line treatment for advanced OC.

Methods: Eligible patients with FIGO stage III–IV primary epithelial ovarian, fallopian tube, or primary peritoneal cancer who have undergone primary or interval debulking surgery will receive 6-8 cycles of chemotherapy combined with anlotinib (12 mg PO D1-14/Q3W ; omitted during the first cycle to prevent delayed wound healing). Following chemotherapy completion, anlotinib will be continued as maintenance monotherapy until disease progression, unacceptable toxicity, or death. The primary endpoint was mPFS.

Results: At data cutoff (December 31, 2024), 53 patients had received at least one dose of the study drug and were included in the analysis. The median age was 56 years. The median follow-up time was 17.71 months (95% CI, 12.45-25.03). The mPFS was 19.58 months (95% CI: 13.06-NE). Patients without prior history of neoadjuvant therapy had longer mPFS than those with prior therapy (20.76 months vs. 11.07 months). The mOS was not reached. The most common any-grade TEAEs were white blood cell deceased, anemia and neutrophil count decreased. Grade ≥3 TEAEs occurred in 75.5% of patients during the chemotherapy phase and 20.5% during maintenance.

Conclusion/Implications: The preliminary efficacy and safety data suggest that anlotinib plus carboplatin/paclitaxel induction therapy, followed by anlotinib maintenance, is a promising regimen for newly diagnosed advanced OC.

PR076 / #341

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

RETHINKING STAGING IN OVARIAN CANCER: SHOULD TRANSMURAL BOWEL INFILTRATION BE STAGE IVB?

Matthew Flint[1], Cecilia Rossi[2], Lindsey Finch[1], Qin Zhou[3], Alexia Iasonos[3], Douglas Allison[4], Vance Broach[1], Kara Long Roche[1], Oliver Zivanovic[5], Ginger Gardner[1], Yukio Sonoda[1], Roisin O'cearbhaill[6], Nadeem Abu-Rustum[1], Dennis Chi[1], Ahmed Al-Niaimi[1]
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Introduction: The International Federation of Gynecology and Obstetrics (FIGO) 2014 ovarian cancer staging assigns transmural bowel infiltration as stage IVB. We examined clinical characteristics and survival outcomes of patients with high-grade serous ovarian cancer (HGSOC) and bowel involvement based on pathologic depth of invasion.

Methods: We identified patients with stage III or IV HGSOC who underwent primary cytoreductive surgery with bowel resection at our institution between 1/2015 and 2/2023. Median survival and 5-year survival rate for progression-free survival (PFS) and overall survival (OS) were generated using the Kaplan-Meier method. PFS and OS multivariate Cox proportional hazards models were built.

Results: Overall, 318 patients were analyzed, of whom 170 (53.5%) had serosal/subserosal involvement, 114 (35.8%) had muscularis propria involvement, and 34 (10.7%) had submucosa/mucosa involvement. Median PFS was 24.8 months (95% CI: 23.0-28.3) and median OS was 75.1 months (95% CI: 61.9-99.6). There was no difference in median PFS among patients with cancer invasion of the bowel muscularis propria (HR, 0.95; 95% CI: 0.70-1.29) or submucosa/mucosa (HR, 1.06; 95% CI, 0.67-1.68) compared to patients with serosal disease (adjusted *P*=0.90). Similarly, there was no difference in OS between patients with involvement of the muscularis propria (HR, 1.06; 95% CI: 0.71-1.58) or submucosa/mucosa (HR, 0.89; 95% CI: 0.47-1.67) compared to patients with serosal disease (adjusted *P*=0.87).

Figure 1: Kaplan-Meier estimates of overall survival (OS) stratified by depth of bowel invasion.

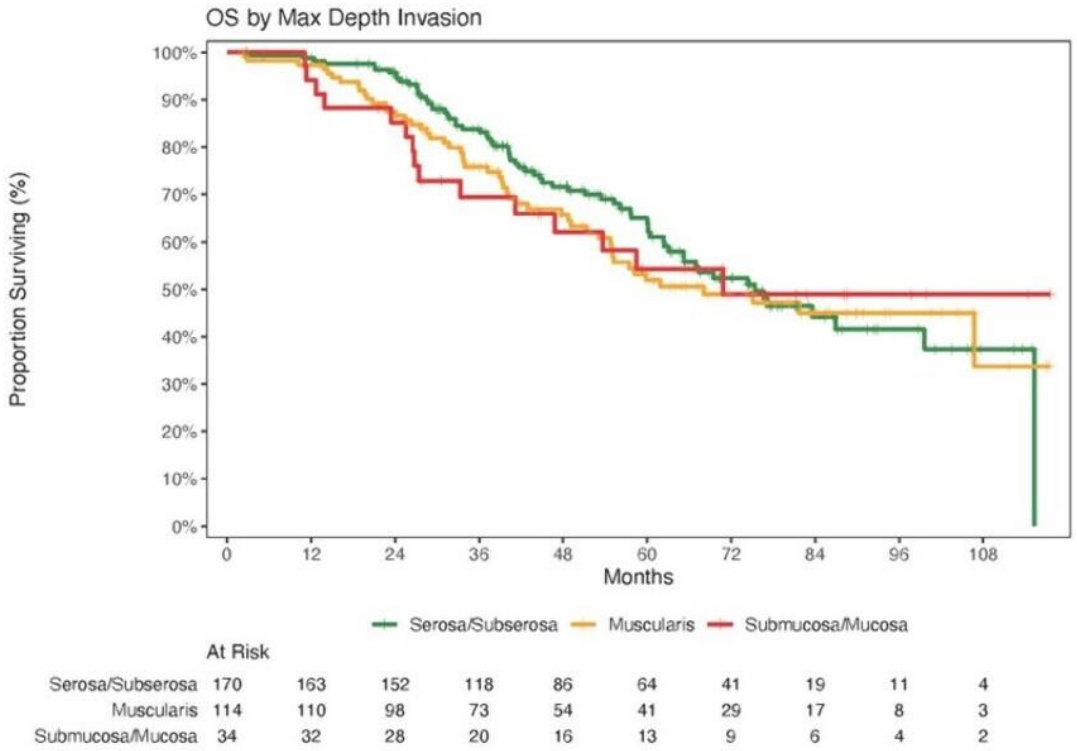

Table 1: Patient Characteristics

Characteristic	All, N=318	Serosa/Subserosa, N = 170	Muscularis, N = 114	Submucosa/Mucosa, N = 34	*P* value[1]
Age at Diagnosis, median (range)	63 (34-85)	61 (34-81)	63 (35-83)	68 (38-85)	**0.013**
Pathologic FIGO Stage					**<0.001**
III	173 (54%)	102 (60%)	65 (57%)	6 (18%)	
IV	145 (46%)	68 (40%)	49 (43%)	28 (82%)	
Race/Ethnicity					0.18
White non-Hispanic	241 (81%)	123 (78%)	91 (84%)	27 (82%)	
White Hispanic	8 (2.7%)	2 (1.3%)	5 (4.6%)	1 (3.0%)	
Black non-Hispanic	9 (3.0%)	6 (3.8%)	1 (0.9%)	2 (6.1%)	
Asian	36 (12%)	24 (15%)	10 (9.3%)	2 (6.1%)	
Other	5 (1.7%)	3 (1.9%)	1 (0.9%)	1 (3.0%)	
Missing	19	12	6	1	
BMI (kg/m^2), median (range)	25.5 (17.0-47.4)	25.2 (17.0-47.4)	25.6 (19.3-42.0)	25.9 (18.0-46.7)	0.65
Number of Bowel Resections					**0.002**
1 bowel resection	210 (66%)	127 (75%)	62 (54%)	21 (62%)	
>1 bowel resection	108 (34%)	43 (25%)	52 (46%)	13 (38%)	
Residual Disease					
Complete gross resection	246 (78%)	129 (76%)	92 (81%)	25 (74%)	
Optimal (<1 cm)	68 (21%)	39 (23%)	22 (19%)	7 (21%)	
Suboptimal (>1 cm)	3 (0.9%)	1 (0.6%)	0 (0%)	2 (5.9%)	
Missing	1	1	0	0	
Germline Mutation Status					0.14
BRCA−	52 (18%)	33 (21%)	15 (15%)	4 (13%)	
BRCA-	197 (70%)	108 (70%)	70 (71%)	19 (63%)	
Other Mutation	34 (12%)	13 (8.4%)	14 (14%)	7 (23%)	
Missing	35	16	15	4	
Bevacizumab Maintenance					0.78
No	274 (87%)	145 (86%)	98 (88%)	31 (91%)	
Yes	40 (13%)	23 (14%)	14 (13%)	3 (8.8%)	
Missing	4	2	2	0	
PARPi Maintenance					0.53
No	253 (82%)	132 (80%)	93 (85%)	28 (85%)	
Yes	54 (18%)	33 (20%)	16 (15%)	5 (15%)	
Missing	11	5	5	1	

[1]Kruskal-Wallis rank sum test; Fisher exact test
Abbreviations: FIGO, International Federation of Gynecology and Obstetrics; BMI, body mass index; PARPi, poly (ADP-ribose) polymerase inhibitor.

Conclusion/Implications: In patients with HGSOC with bowel involvement, depth of bowel invasion does not appear to impact survival. These findings question the prognostic and clinical utility of the 2014 FIGO staging definition in which transmural bowel infiltration is considered stage IVB.

PR077 / #990

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

FAPIROC: SEQUENTIAL LU-177 FAPI THERAPY AND CHEMOTHERAPY IN PLATINUM-RESISTANT RECURRENT OVARIAN CANCER – AN INITIAL CLINICAL EXPERIENCE

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Introduction: Platinum-resistant recurrent ovarian cancer (PRROC) has limited therapeutic options with low response rates. Fibroblast Activation Protein(FAP) overexpression in ovarian cancer stroma offers a novel theranostic target. We evaluated sequential Lu-177FAPI therapy followed by chemotherapy (FAPIROC protocol) in PRROC.

Methods: Eighteen patients with PRROC showing high FAPI uptake on PET/CT received intravenous Lu-177 FAPI therapy. Standard chemotherapy (weekly paclitaxel or liposomal doxorubicin) was initiated within one week. Clinical response was assessed using RECIST criteria, CA-125 trends, and symptom improvement.

Results: Partial response was observed in 13/18 patients (72%), stable disease in 1 patient (6%), and disease progression in 4 patients (22%). Most responders experienced significant symptomatic relief, including reduced abdominal pain and ascites. CA-125 levels declined in correlation with clinical response. No severe FAPI-related adverse events were reported.

Conclusion/Implications: Sequential Lu-177 FAPI therapy followed by chemotherapy demonstrated promising response rates and symptomatic benefits in heavily pretreated PRROC patients. This combination strategy warrants further prospective evaluation to confirm its role in extending disease control in this difficult-to-treat population.

PR078 / #684

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

COMPARING OVARIAN CANCER SURGICAL COMPLEXITY FOR PRIMARY VERSUS INTERVAL DEBULKING FOLLOWING A PREDICTIVE MODEL

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Introduction: In 2015, we published our model for predicting cytoreductive outcomes (with radiologic and clinical variables) at primary debulking surgery (PDS) for ovarian cancer to predict complete gross resection (CGR). This model has been utilized for the triage of patients to PDS or neoadjuvant chemotherapy (NACT). The goal of this study was to compare surgical complexity during PDS vs. IDS following application of this predictive model to both groups.

Methods: This single-institution, retrospective cohort study, conducted from 05/01/2015-01/31/2025, included patients with ovarian cancer. A resectability score algorithm was used to triage patients for primary management. The surgical complexity of total procedures performed was compared with Fisher's exact tests and multiple comparison adjustment.

Results: 539 patients were included, 407 (76%) underwent PDS and 132 (24%) underwent IDS. Among patients who underwent PDS, CGR was achieved in 79%, (321/407), optimal resection of ≤1cm residual disease in 94% (382/407), and 6% suboptimal >1cm (25/407). Not including hysterectomy, salpingo-oophorectomy, or omentectomy, 35% (191/539) underwent high complexity surgery of ≥5 procedures (94% PDS, 6% IDS) ($p<0.001$). Low-anterior resection was performed in 44% (239/539) with 53% among all PDS vs. 18% among all IDS; additional bowel resection in 26% (142/539) with 30% PDS vs. 14% IDS; 26% splenectomy (140/53) with 30% of PDS vs. 14% of IDS; 59% diaphragm stripping (319/539) with 65% of PDS vs. 40% IDS (multiple comparison adjusted $pv<0.001$).

Table 1: Additional procedures performed not including hysterectomy, bilateral salpingectomy, or omentectomy compared among the overall cohort, primary debulking surgery (PDS), and interval debulking surgery (IDS). * P-value calculated with false discovery rate correction for multiple testing.

Additional Procedures	All, N=539	PDS, N = 407 (76%)	IDS, N = 132 (24%)	p-value*
Low Anterior Resection	239 (44%)	215 (53%)	24 (18%)	<0.001
Large Bowel Resection	99 (18%)	87 (21%)	12 (9.1%)	0.002
Small Bowel Resection	88 (16%)	78 (19%)	10 (7.6%)	0.002
Splenectomy	140 (26%)	121 (30%)	19 (14%)	<0.001
Pancreas Resection	24 (4.5%)	20 (4.9%)	4 (3.0%)	0.50
Liver Resection	121 (22%)	107 (26%)	14 (11%)	<0.001
Diaphragm Resection	319 (59%)	266 (65%)	53 (40%)	<0.001
Supradiaphragmatic Lymph Node Resection	110 (20%)	103 (25%)	7 (5.3%)	<0.001
Pelvic LN Resection	219 (41%)	201 (49%)	18 (14%)	<0.001
Para-Aortic Lymph Node Resection	200 (37%)	189 (46%)	11 (8.3%)	<0.001
Appendectomy	179 (33%)	151 (37%)	28 (21%)	<0.001
Bladder Resection	54 (10%)	44 (11%)	10 (7.6%)	0.36
Cholecystectomy	65 (12%)	61 (15%)	4 (3.0%)	<0.001
Porta Hepatis Resection	114 (21%)	99 (24%)	15 (11%)	0.002
Gastrectomy	35 (6.5%)	28 (6.9%)	7 (5.3%)	0.68
Inguinal Lymph Node Resection	12 (2.2%)	11 (2.7%)	1 (0.8%)	0.36

Conclusion/Implications: Use of a resectability scoring algorithm for surgical triage was associated with higher surgical complexity during PDS compared to IDS, while maintaining high rates of CGR.

PR079 / #943

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

SAFETY OF RUCAPARIB MONOTHERAPY IN ADVANCED HIGH-GRADE OVARIAN CANCER CLINICAL TRIALS

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Introduction: Maintenance rucaparib monotherapy improves progression-free survival in patients with advanced high-grade ovarian cancer (HGOC) who had responded to platinum-based chemotherapy. Here we report updated safety of rucaparib in a large patient population with advanced HGOC.

Methods: The integrated safety population includes patients who received ≥1 dose of oral rucaparib (600 mg BID, N=1594) from Study 10, ARIEL2, ARIEL3, ARIEL4, and ATHENA-MONO trials. Rucaparib was given as first-line maintenance treatment in ATHENA-MONO and second-line maintenance in ARIEL3. Rucaparib was given in

second-line or later in the treatment setting for Study 10, ARIEL2, and ARIEL4. Safety endpoints included treatment-emergent adverse events (TEAEs).

Results: Safety results are similar as reported previously for 937 patients (Kristeleit, Ann Oncol. 2019). In this updated integrated analysis of 1594 patients treated with rucaparib in all settings, the most frequent TEAEs were nausea, asthenia/fatigue/lethargy, and anemia/hemoglobin decreased with a median onset of 5, 15, and 57 days, respectively (**Table 1**). Most common grade ≥3 TEAEs were anemia/hemoglobin decreased (25%), ALT/AST increased (10%), and neutropenia/neutrophil count decreased (10%). 15% of patients discontinued due to a TEAE; 65% of patients had their dose reduced/interrupted. Myelodysplastic syndrome/acute myeloid leukemia (MDS/AML) occurred in 32/1594 patients (2%). Death assessed as related to rucaparib occurred in 7 (0.4%) patients.

Conclusion/Implications: Across multiple lines of treatment across 5 clinical trials in advanced ovarian cancer, rucaparib has a consistent and manageable safety profile with a low discontinuation rate. These data support rucaparib as a beneficial maintenance treatment option for patients with advanced HGOC.

Table 1. Most Frequent (≥30% overall) TEAEs in the Integrated Safety Population

TEAE	1L maintenance (n=425) (%)	2L maintenance (n=372) (%)	Treatment (n=797) (%)	Overall (N=1594) (%)	Time to onset for Overall, Median (95% CI), days
Nausea	56	76	71	68	5 (4-6)
Asthenia/fatigue/lethargy[a]	56	73	70	67	15 (15-17)
Anemia/hemoglobin decreased[a]	47	40	48	46	57 (55-57)
ALT/AST increased[a]	43	36	39	39	15 (15-16)
Vomiting	24	38	43	37	23 (16-26)
Constipation	19	38	32	30	36 (29-48)

[a]Combined terms. Data cutoffs: Study 10 (NCT01482715): complete and closed: ARIEL2 (NCT1891344): 1Feb2019: ARIEL3 (NCT01968213): 4Apr2022: ARIEL4 (NCT02855944): 10Apr2022: ATHENA-MONO (GOG-3020/ENGOT-ov45; NCT03522246): 23Mar2022

PR081 / #247

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

EFFORT2: COMBINATION CERALASERTIB (ATRI) PLUS OLAPARIB (PARPI) IN WOMEN WITH PLATINUM SENSITIVE HOMOLOGOUS RECOMBINATION DEFICIENT (HRD) OVARIAN CANCER WITH PRIOR PARPI EXPOSURE

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Introduction: Ataxia telangiectasia and Rad3-related (ATR) protein is crucial for S-phase cell cycle arrest during DNA repair or apoptosis. The ATR inhibitor ceralasertib is predicted to have monotherapy activity and enhance the efficacy of DNA damaging agents. This study evaluated ceralasertib in combination with olaparib in patients with platinum-sensitive ovarian cancer previously treated with PARP inhibitors (PARPi).

Methods: Eligible patients had recurrent ovarian, fallopian tube, or primary peritoneal cancer with documented platinum-sensitive disease (progression ≥ 6 months after prior platinum therapy), prior PARPi exposure, and a germline/somatic *BRCA* mutation or HRD positivity. Patients received ceralasertib 80 mg BID on days 1-14 and olaparib 150 mg BID on days 1-28 of a 28-day cycle. Primary endpoint was objective response rate (ORR) by RECIST 1.1. Clinical benefit rate (CBR) was defined as ORR plus stable disease (SD) rate for ≥16 weeks.

Results: Of 16 enrolled patients, 15 were evaluable. 9 (60%) had *BRCA* mutations and 6 (40%) were HRD positive. All evaluable patients (100%) experienced clinical benefit: 4 (27%) patients had an objective response (all partial response) while 11 (73%) patients had stable disease ≥4 cycles. No treatment discontinuations occurred due to toxicity, though 9 (60%) patients had dose interruptions and 3 (20%) required dose reductions. Grade 3/4 toxicities included anemia (6.7%) and lymphopenia (6.7%). 4 patients remain on treatment.

Conclusion/Implications: Ceralasertib combined with olaparib was well tolerated and demonstrated promising efficacy in platinum-sensitive ovarian cancer patients with prior progression on PARPi. Further analysis of patients still on trial is ongoing.

PR082 / #776

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

IMPROVED PROGRESSION-FREE SURVIVAL WITH COMBINATION BEVACIZUMAB AND MIRVETUXIMAB SORAVTANSINE-GYNX IN PLATINUM-RESISTANT OVARIAN CANCER

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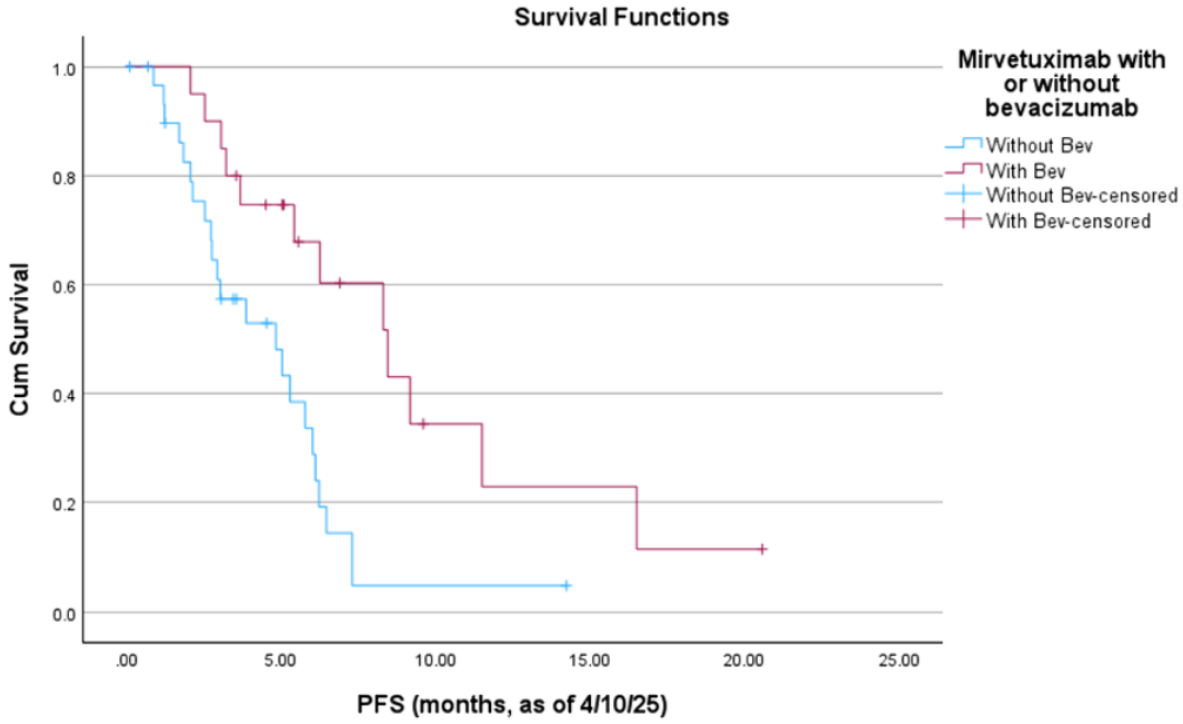
Introduction: Mirvetuximab Soravtansine-Gynx (MIRV) is a novel folate-receptor alpha (FRa) antibody-drug conjugate effective in treating FRa-positive platinum-resistant ovarian cancer (PROC) with an objective response of ~40%. This study assessed the real-world response to MIRV, with or without bevacizumab, at a large academic institution.

Methods: Demographic, clinical, and survival data for patients treated with MIRV from November 14, 2022, to April 10, 2025, were collected from electronic medical records. Statistical analysis was performed with SPSS 29, using descriptive statistics, Kaplan-Meier estimates, and Cox regression.

Results: Of 56 patients planned to receive MIRV, 51 were evaluable. Patients received a median of three prior lines of therapy, with 86.3% having had prior bevacizumab. Notably, 39.2% of patients got MIRV in combination with bevacizumab. Median FRa positivity was 75% (range 25%-100%) (Table 1). Although patients receiving combination MIRV and bevacizumab had a lower median FRa positivity (60.2% vs 84.1% with MIRV alone), they exhibited a significant improvement in median progression-free survival (PFS) (9.4 months vs. 4.7 months, HR 0.34, 95% CI 0.16-0.72, p=0.03) (Figure 1). Race/ethnicity, stage at diagnosis, BRCA/HRD positivity, prior PARP inhibition, prior bevacizumab, FRa positivity (%), and number of prior lines had no impact on PFS. Median PFS was 4.5 months. There were four (7.8%) complete responses, 20 (29.4%) partial responses, 12 (23.5%) with stable disease, and 17 (33.3%) with progressive disease. Investigator-assessed objective response was 37.3%, similar to prior reports.

	Mirvetuximab soravtansine-gynx N=51
Age, median (range) – yr	63 (40-87)
BMI, mean (SD)	24.3 (5.1)
Race – no (%)	
Asian	2 (3.9)
Black	3 (5.9)
White	46 (90.2)
Ethnicity – no (%)	
Hispanic or Latino	32 (62.7)
Not Hispanic or Latino	19 (37.3)
Primary cancer diagnosis – no (%)	
Epithelial ovarian cancer	43 (84.3)
Fallopian tube cancer	6 (11.8)
Primary peritoneal cancer	2 (3.9)
Stage at diagnosis – no (%)	
I	3 (5.9)
II	2 (3.9)
III	33 (64.7)
IV	11 (21.6)
Incompletely staged	2 (3.9)
BRCA mutation – no (%)	
Yes	12 (23.5)
No	39 (76.5)
FRα positivity, median (range) – %	75 (25-100)
Number of prior therapies, median (range)	3 (1-8)
Number of cycles MIRV received, median (range)	6 (1-28)
MIRV with or without bevacizumab – no (%)	
With	20 (39.2)
Without	31 (60.8)
Prior bevacizumab – no (%)	44 (86.3)
Prior PARPi – no (%)	27 (52.9)
Patients with toxicity from MIRV – no (%)	
Yes	36 (70.6)
Requiring permanent discontinuation	3 (5.9)
No	15 (29.4)



Conclusion/Implications: Adding bevacizumab to MIRV is associated with improved PFS, and should be considered in the treatment of FRa-expressing PROC.

PR083 / #415

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

ASSOCIATION OF KELIM INDEX WITH PERITONEAL CANCER INDEX AND CHEMOTHERAPY RESPONSE SCORE IN OVARIAN CANCER PATIENTS UNDERGOING INTERVAL CYTOREDUCTIVE SURGERY- FROM INDEX TO IMPACT

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Introduction: The Kelim index, derived from CA125 kinetics, is an emerging biomarker for assessing tumor regression and chemosensitivity in advanced ovarian cancer. Its relationship with the Peritoneal Cancer Index (PCI) and Chemotherapy Response Score (CRS) remains underexplored. This study evaluates the association between Kelim and both surgical and pathological PCI, as well as CRS, in patients undergoing interval cytoreductive surgery following neoadjuvant chemotherapy (NACT)

Methods: This single-center, retrospective study included 146 patients with Stage III/IV high-grade serous ovarian cancer treated with NACT followed by interval cytoreductive surgery between November 2022 and December 2024. Kelim was calculated using Biomarker-Kinetics™ and classified as favorable (≥1) or unfavorable (<1). PCI was assessed intraoperatively, and CRS was determined from histopathology. Correlations with PCI and CRS were analyzed using chi-square tests, scatter plots, and ROC curves. Associations with BRCA and HRD status were also explored

Results: A favorable Kelim index strongly correlated with better CRS outcomes (CRS 2/3 achieved in 85.71% of patients; $p = 0.0005$) and greater PCI reductions both intraoperatively and pathologically ($p < 0.0001$) (Figure1). Specifically, 81% of favorable Kelim patients had moderate to significant intraoperative PCI reduction (Figure 2), and 80.76% achieved similar pathological reductions. ROC analysis showed moderate predictive accuracy. No significant association was found between Kelim and BRCA or HRD status ($p > 0.65$)

Comparision of KELIM index with CRS

Characteristics	KELIMindex		P-value
	Unfavorable n(%)	Favorable n (%)	
Chemotherapy Response Score			
CRS 1	10 (23.81)	6 (5.77)	
CRS 2	14 (33.33)	82 (78.85)	<0.0001
CRS 3	0 (0.0)	14 (13.46)	
NA	18 (42.86)	2 (1.92)	

p-value <0.05 is Significant

Comparision of KELIM index with Difference of Pre NACT-PCI and Surgical PCI

Characteristics	Difference of PCI Score			P-value
	Significant Reduction (▲PCI->15)	Moderate Reduction (▲PCI-10-15)	Minimal Reduction (▲PCI-<10)	
KELIM index				
Unfavorable n (%)	4 (9.52)	0 (0.0)	38 (90.48)	<0.0001
Favorable n (%)	34 (32.69)	50 (48)	20	

p-value <0.05 is Significant

Conclusion/Implications: The Kelim index correlates strongly with CRS and reduction in PCI score post NACT underscoring its utility as a preoperative predictor of chemotherapy response and tumor regression. Future prospective studies with larger, multi-center cohorts are warranted to validate these findings.

PR084 / #709

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

CLEAR-OC: CIRCULATING CELL-FREE DNA FOR EARLY ASSESSMENT AND RESPONSE IN OVARIAN CANCER

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Introduction: In high-grade serous ovarian carcinoma (HGSOC), where delayed diagnosis and limited biomarkers compromise outcomes, circulating cell-free DNA (cfDNA) offers a promising tool for early detection, molecular stratification, and real-time disease monitoring.

Methods: A prospective study was conducted involving 59 treatment-naïve HGSOC patients and 48 controls (37 benign adnexal masses, 11 healthy individuals). Plasma cfDNA was quantified using the Qubit dsDNA-HS Assay. Tumor Fraction (TFx) was calculated via Ultra-Low Pass Whole Genome Sequencing (ULP-WGS), and mutational profiles were derived from targeted gene sequencing (TGS) of tumor tissue and whole exome sequencing (WES) of matched germline DNA.

Results: HGSOC patients exhibited significantly elevated cfDNA levels compared to benign cases (median: 47.6 vs. 21.44 ng/mL, $p<0.05$), with a diagnostic threshold of 28.30 ng/mL yielding 71.2% sensitivity and 61.1% specificity. TFx ranged from 0.06–0.30, reflecting the presence of fragmented tumor DNA in circulation. Common somatic mutations were identified in **WT1** (62.7%), **PAX8** (61.2%), and **TP53** (45.8%). In 10 patients in whom serial evaluation of post-treatment cfDNA levels was complete, a decline in value of cfDNA was observed in all serially monitored patients, correlating with clinical response. Sequencing of tumor DNA in three primary debulking cases revealed actionable mutations in **BRCA1/2**, **TSC1**, **PMS2**, **MSH6**, and **NF1**, supporting the clinical utility of cfDNA for therapeutic guidance.

Conclusion/Implications: cfDNA quantification and profiling offer a robust, minimally invasive approach for treatment monitoring and molecular characterization in ovarian cancer. These findings underscore its potential as a central component of precision oncology frameworks for HGSOC.

PR085 / #775

Topic: *AS06. Tumor Types / AS06d. Ovarian Cancer*

PATIENT-DERIVED TUMOR-LIKE CELL CLUSTERS FOR DRUG TESTING IN GYNECOLOGICAL CANCER THERAPY

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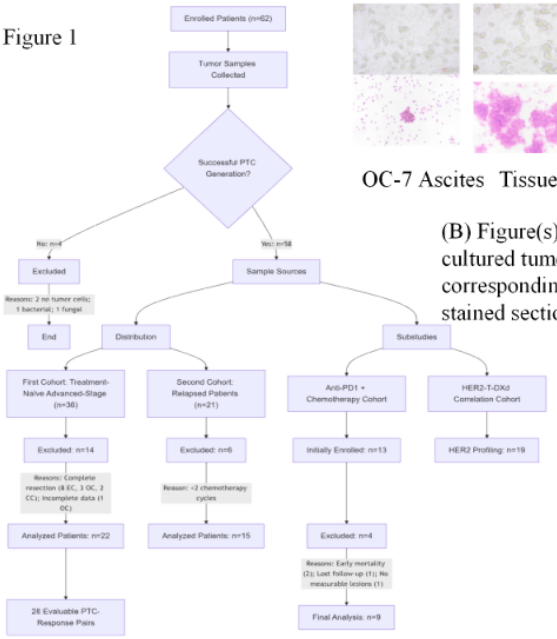
Introduction: To establish patient-derived tumor-like cell clusters (PTCs) as a predictive ex vivo platform for optimizing chemotherapy, targeted therapy, and immunotherapy responses in gynecological malignancies, addressing interpatient heterogeneity and therapeutic resistance.

Methods: Surgical specimens, biopsies, and ascites from 58 patients (36 treatment-naïve advanced-stage, 22 relapsed) were processed to generate 3D PTC models. Viable clusters were cultured using standardized protocols, validated via microscopy, histology, and contamination screening. PTC viability was measured, and immunotherapies required cytokine release profiling (TNF-α, IFN-γ, IL-8, IL-13). Clinical concordance, survival outcomes, and predictive accuracy were analyzed using Wilcoxon rank-sum test, Kaplan-Meier curves, and ROC analysis (AUC).

Results: In treatment-naïve patients, clinical concordance analysis (28 evaluable PTC-treatment pairs; viability threshold 0.70) revealed 89.3% agreement with clinical outcomes (*p* = 0.0016), achieving an AUC of 0.877 (95% CI: 0.719–1.000). Relapsed patients receiving PTC-guided therapy exhibited improved progression-free survival (HR = 0.62, 95% CI 0.41–0.93, *p* = 0.021). Immunotherapy cohort analysis (*n* = 13) demonstrated PTC-predicted anti-PD-1 responses via blinded drug sensitivity assays and cytokine profiling. HER2 IHC scores inversely correlated with HER2-ADC sensitivity (*r* = −0.515, *p* = 0.024). Four representative cases confirmed PTC-clinical outcome alignment.

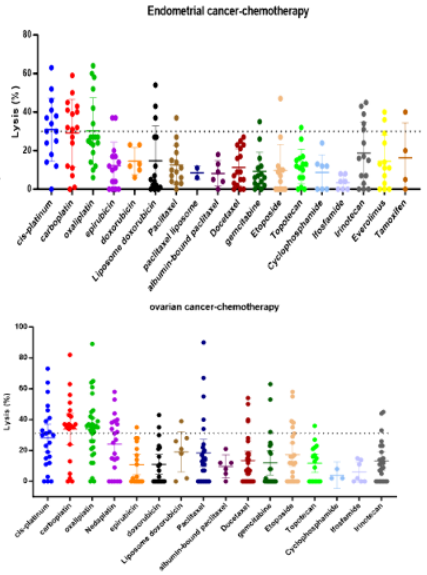
Figure 1



(A) Study flowchart

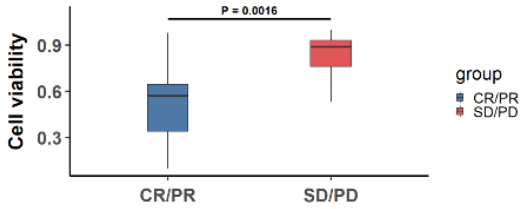
OC-7 Ascites Tissue EC-02 Ascites

(B) Figure(s) show PTC-cultured tumor cells and corresponding H&E-stained sections.

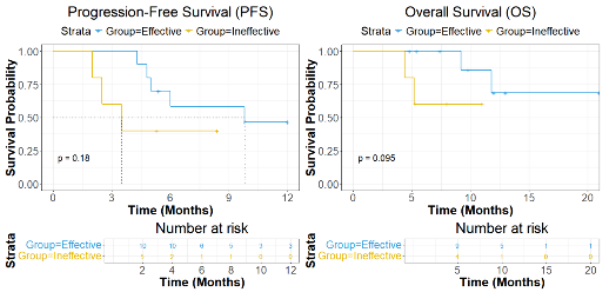


(C) In Vitro Drug Sensitivity Testing Results of PTC Models for Endometrial Cancer and Ovarian Cancer

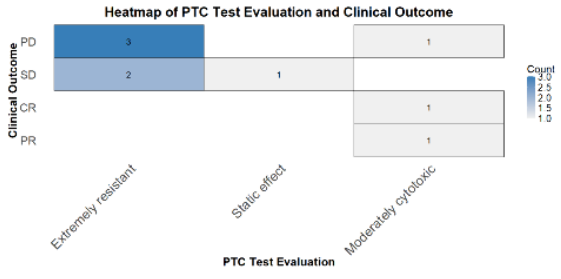
Figure 2

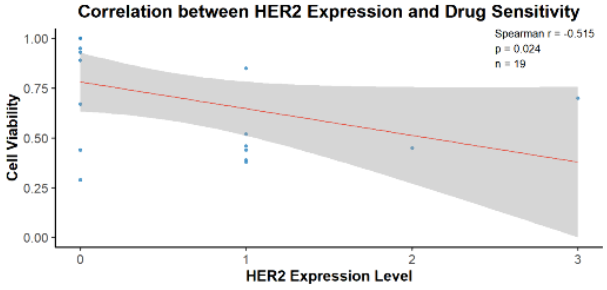


(A)Box plot comparing cell viability between CR/PR (blue) and SD/PD (red)



(B)Kaplan-Meier curve of PFS and OS;Blue (Effective group) shows slower survival decline than yellow (Ineffective group)





Conclusion/Implications: PTCs enable precision drug prioritization, offering transformative potential for personalized gynecological cancer management.

PR086 / #430

Topic: *AS06. Tumor Types / AS06f. Vulvar & Vaginal Cancer*

EFFECTS OF RADIATION THERAPY DOSE ON OVERALL SURVIVAL FOR PRIMARY TREATMENT OF VULVAR SQUAMOUS CELL CARCINOMA: A UNITED STATES NATIONAL CANCER DATABASE STUDY

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Introduction: Chemoradiation therapy for treatment of unresectable stage I-II vulvar cancer has shown high response rates in phase II trials. Radiation doses used in these trials have been criticized as being below the current standard and survival outcomes have not been reported. This study compared overall survival (OS) for patients who received chemoradiation with a definitive-dose (6000-7200 cGy) compared to low-dose (4500-5999 cGy) radiation.

Methods: This was a retrospective cohort study using the United States National Cancer Database (NCDB). Patients diagnosed with stage I or II vulvar squamous cell carcinoma treated with primary chemoradiation therapy without surgery between 2010-2020 were included. Patients who received immunotherapy were excluded. OS was compared between definitive-dose versus low-dose radiation therapy, using a Cox proportional hazards model adjusting for demographic and clinical characteristics.

Results: A total of 778 patients were included; 448 (58%) received a definitive-dose and 330 (42%) received low-dose radiation. Median age was 64 years in both groups with 59% of patients in the definitive-dose group having stage II disease compared to 41% of patients in the low-dose radiation group. No differences in demographic or clinical characteristics were observed between the groups, with the exception that the definitive-dose was used more frequently in recent years. Definitive-dose radiation therapy was associated with improved OS compared to low-dose (median OS: 85 months vs. 75 months, respectively), with an adjusted HR=0.80 (95% CI: 0.64-1.00, p=0.0495).

Conclusion/Implications: A radiation dose of >6000 cGy was associated with improved OS for patients with stage I-II vulvar cancer who received primary chemoradiation therapy and no surgery.