OP010/#223

EXTRAPELVIC RECURRENCE RISK IN WOMEN WHO UNDERWENT MINIMALLY-INVASIVE VERSUS OPEN LAPAROTOMY FOR INTERMEDIATE-RISK ENDOMETRIAL CANCER; A MULTI-CENTER REVIEW

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Objectives Objective: Minimally invasive surgery (MIS) is a common approach in endometrial cancer care. Recent studies have shown increased recurrence rates for women undergoing MIS versus laparotomy. Our goal was to assess endometrial cancer recurrence rates for MIS versus laparotomy.

Methods A multi-centre retrospective study was conducted for patients with intermediate-risk (ESGO) stage 1 endometrioid endometrial cancer treated surgically between January 1/2010-December 31/2019. Surgical and pathology data were collected and oncology outcomes were assessed using Kaplan-Meier and multivariate COX regression analysis.

Results A total of 282 risk-stratified patients were reviewed from two major cancer centers. Median age of diagnosis was 64 and median follow up 60 months. A minimally invasive approach was completed for 65% of patients; 35% of patients underwent laparotomy. Adjuvant therapy with EBRT was completed in 21% of patients, brachytherapy in 48% and 31% had no adjuvant therapy. There was no difference in type of radiation between the two groups. In the MIS group 9.2% had any recurrence; 4.3% of these were extrapelvic ($p=0.154$). In the laparotomy group 4.1% had any recurrence; 1% of these were extrapelvic ($p=0.169$). Although no observed difference in overall survival, mean progression free survival was 106 months in the MIS group versus 117 months in the laparotomy group ($p=0.031$). There was a significantly greater risk of extrapelvic relapse with MIS ($p=0.019$).

Conclusions

Conclusion Among women with intermediate risk endometrial cancer, we observed a higher recurrence rate and risk of extrapelvic recurrence with MIS surgery. This finding is concerning and consistent with other published data.

OP011/#250

POSTMENOPAUSAL STATUS AND ELEVATED SERUM LEVEL OF CANCER ANTIGEN 125 SIGNIFICANTLY PREDICTED CONCURRENT ENDOMETRIAL CANCER IN WOMEN DIAGNOSED WITH ATYPICAL ENDOMETRIAL HYPERPLASIA BEFORE SURGERY

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Objectives About 10–66% of patients with atypical endometrial hyperplasia diagnosed before surgery (pre-AEH) are found to have concurrent endometrial cancer (EC) after definitive hysterectomy, leading to incomplete primary surgery and delayed adjuvant treatment. This study aims to investigate

which factors could predict underlying cancer risk in pre-AEH patients.

Methods All patients diagnosed with AEH by endometrial sampling and then underwent definitive hysterectomy from January 2016 to December 2019 were identified. Patients diagnosed with EC by final pathology were divided into 2 subgroups according to NCCN guideline 2021: low-risk, and intermediate-high risk.

Results Totally 624 pre-AEH patients were identified, 30.4% ($n=190$) of them were diagnosed with EC finally. Univariate analysis showed underlying risk of EC was correlated with postmenopausal status, higher CA125 serum level (≥ 35 U/ml), higher serum level of fast blood glucose (≥ 7.0 mmol/L) and older age (>50 years old). In multivariate analysis, only postmenopausal status and $CA125 \geq 35$ U/ml ($OR = 3.89$, 95% $CI = 1.59-9.53$; $OR = 3.11$, 95% $CI = 1.13-8.59$) independently predicted concurrent EC. Remarkably, patients with postmenopausal status + $CA125 \geq 35$ U/ml had significantly increased risk of finally-diagnosed EC ($OR = 14.10$, 95% $CI = 1.59-125.22$). Similar results were also found in predicting intermediate-high-risk EC. Notably, among all the postmenopausal patients, pre-AEH women with postmenopausal time ≥ 5 years were found to have highest risk of concurrent EC.

Conclusions Pre-AEH patients with postmenopausal status and elevated level of CA125 may have high risk of concurrent EC. More detailed evaluation before surgery should be suggested.

OP012/#257

MINIMALLY INVASIVE SURGERY IS ASSOCIATED WITH AN INCREASED RISK FOR LOCAL RECURRENCE IN HIGH-GRADE ENDOMETRIAL CARCINOMA

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Objectives To compare oncological outcomes of women with high-grade endometrial carcinoma (HGEC) who underwent surgery by minimally invasive surgery (MIS) versus laparotomy.

Methods A retrospective cohort study performed in an academic multi-center setting. Consecutive women with HGEC cancer treated at 11 Israeli institutions between 2002 and 2017 were accrued in an assimilated database with a median follow-up of 52 months (range 12–120 months). Women with HGEC were stratified into two groups by route of surgery; MIS vs. laparotomy by an intention to treat. Clinical, pathological and outcome data were compared.

Results Six hundred and seventy-eight women met the inclusion criteria: 160 underwent MIS and 518 laparotomy. The two groups were comparable in demographic and clinical characteristics. Brachytherapy rate was similar in both groups

Abstracts

($p=0.192$). Disease progression and overall survival did not differ between groups ($p=0.537$, $p=0.465$, respectively). However, patients operated with MIS had almost 3 times risk to recur at their vaginal cuff or pelvis (Odds Ratio (OR) 95% Confidence Interval (CI) 2.80 (1.80–4.36)). In a multivariable analysis, including age, comorbidities, disease stage, CA-125 and lymph-vascular space invasion, MIS was associated with an increased risk for local (vaginal cuff or pelvic) recurrence (OR 95% CI 3.30 (1.69–6.48)).

Conclusions In women with HGEC, MIS was associated with higher rates of local recurrence as compared to laparotomy

OP013/#417 COST-EFFECTIVENESS OF DOSTARLIMAB IN ADVANCED RECURRENT DEFICIENT MISMATCH REPAIR ENDOMETRIAL CANCER PATIENTS

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Objectives Women with recurrent endometrial cancer who fail carboplatin and paclitaxel have a poor prognosis with few effective options. The recent GARNET Trial showed promising results for dostarlimab in these patients. We developed a decision model to compare the cost-effectiveness of dostarlimab to other treatment options in patients with progressive/recurrent deficient mismatch repair (dMMR) endometrial cancer who have failed first-line chemotherapy.

Methods A Markov model was created to simulate the clinical trajectory of women with progressive/recurrent dMMR endometrial cancer who failed carboplatin and paclitaxel (figure 1). The initial decision point in the model was treatment with either dostarlimab, pembrolizumab or pegylated liposomal doxorubicin (PLD). Model probabilities, cost and utility values were derived with assumptions drawn from published literature. The effectiveness was measured in terms of quality adjusted life years (QALYs) gained. The primary outcome was incremental cost-effectiveness ratios (ICERs), expressed in 2018 US dollars/QALYs. One-way sensitivity analyses were performed to vary the assumptions across a range of plausible values.

Results PLD was the least costly strategy at \$54,307, followed by pembrolizumab (\$160,780) and dostarlimab (\$251,132). PLD was cost-effective compared with

Abstract OP013/#417 Table 1 Outcomes of study population

Treatment	N	Response Rate (%)	Total Costs (\$)	QALYs	ICER
PLD	2,000	10	108,615,907	1,102	N/A
Pembrolizumab	2,000	29	321,561,768	1,876	Extended dominance
Dostarlimab	2,000	42	502,265,891	3,074	199,621

Assuming a population of 6,000 progressive/recurrent dMMR endometrial cancer patients

dostarlimab with an ICER of \$199,621, while pembrolizumab was subjected to extended dominance (table 1). Multiple one-way sensitivity analyses did not substantially impact the cost-effectiveness.

Conclusions Dostarlimab is associated with greater survival compared with other treatments for women with recurrent dMMR endometrial cancer. However, the agent is substantially more costly.

OP014/#480 TARGETED MOLECULAR TESTING IN ENDOMETRIAL CARCINOMA: VALIDATION OF A RESTRICTED TESTING PROTOCOL

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Objectives The World Health Organization (WHO) endorsed molecular classification of endometrial carcinoma (EC) to be incorporated in routine diagnostic workup, by evaluating p53 and mismatch repair (MMR) protein immunohistochemistry (IHC), as well as pathogenic mutations in the gene encoding DNA polymerase epsilon (POLE). The latter is currently the least affordable or accessible step. We investigated whether POLE testing can be omitted in patients who based on stage, grade and lymphovascular space invasion (LVI) criteria would not usually be directed to adjuvant therapy.

Methods Using data from a single cancer centre (n=460) in Vancouver, and a population-based cohort in Tübingen (n=452), we compared the WHO recommended molecular testing of the entire cohort (n=912) with a restricted protocol: p53 and MMR IHC on all cases, but POLE sequencing

Abstract OP013/#417 Figure 1