diagnosis, decision making, treatment, fertility and survivorship.

Methodology A mixed methods retrospective cohort study was undertaken utilising an online survey and semi-structured interviews addressing themes of diagnosis, management decision making, treatment, fertility and survivorship. Women aged 18–40 years with early EAC, treated at the Royal Women's Hospital (RWH), Melbourne, Australia were identified. Seventy-five women were invited to participate. Online survey links were distributed via mobile text message along with an invitation for interview. Survey responses were collated, and interview transcripts were thematically analyzed using a grounded theory approach.

Results Twenty-six surveys and 14 interviews were completed. Medical management: 20 surveyed 7 interviewed (mean age 33ys) Surgical management: 6 surveyed 7 interviewed (mean age 38 yrs). Responses highlight the shock of the diagnosis and improvements which could be made when communicating the diagnosis. Common themes also included a strong desire for women to be presented with treatment options, suboptimal information provision around treatment options and implications for fertility and long term survivorship as well as the significant emotional burden across all aspects of the treatment journey. Women consistently expressed they did not identify with the wider EAC cohort or other reproductive aged women with cancer and had a strong desire for specific cancer support services. Overall 20 themes across 5 domains were identified. Examples in figure 1.

Conclusion This study examines the experience of young women diagnosed with early EAC. It highlights unmet needs, particularly around available supports and provision of information. These needs should be considered in the future management of these cancer patients.

Acknowledgements To the participants for sharing their experiences.

Disclosures No authors have disclosures to report.

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MISMATCH REPAIR PROTEIN EXPRESSION DEFECTS IN ENDOMETRIOID ENDOMETRIAL ADENOCARCINOMA

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10.1136/ijgc-2020-ESGO.214

Introduction/Background Endometrial cancer has been shown to be the sentinel cancer in over half the female patients with heritable mismatch repair (MMR) mutations as part of Lynch syndrome. Immunohistochemical testing for MMR protein expression in endometrial cancer is the first screening test identifying cases that potentially harbour familial cancer syndrome-related mutations. MMR has also become a biomarker to predict response to targeted therapeutics such as in immune-checkpoint blockade. This is the first study to describe the prevalence of MMR protein expression defects in Maltese endometrial carcinoma patients and the correlation with patient age at diagnosis.

Methodology 200 endometrioid endometrial cancer cases were retrospectively identified from the Mater Dei Hospital laboratory information system and categorized into three arms: the first consisting of 151 cases over the age of 50 at diagnosis, the second consisting of 49 cases at or under the age of 50 at diagnosis and a control group consisting of 30 patients who underwent endometrial tissue sampling for benign conditions. H&E slides for these cases were re-examined by an independent pathologist to confirm the diagnosis as well as to identify the block best representing the tumour. Four new slides per case were recut and immunohistochemistry performed for MLH1, PMS2, MSH2, and MSH6 MMR proteins. Protein expression was analysed semiquantitatively using Allred score.

Results In the overall cohort 69% of cases were MMR proficient while 31% of cases were deficient for one or more MMR proteins. Dual loss of the MLH1 and PMS2 heterodimer protein expression was the most common deficiency and occurred in 24.5% of the EEC population. Loss of MSH2-MSH6 heterodimer protein expression was less common and represented 3.2% of MMR-deficient cases. Well differentiated tumours had a 76.5% proficiency rate as opposed to grade 2/3 disease with 53.2% and 52.9% proficiency rate respectively. There was no statistically significant difference in

Abstract 597 Figure 1

Abstract 597 Figure 2

overall MMR status when age 50 was used as a hypothetical testing threshold. After correcting for tumour grade as a confounding variable it was shown that MLH1 and PMS2 expression were negatively correlated with increasing age while MSH6 expression was positively correlated with increasing age at diagnosis (figures 1 and 2).

Conclusion There is no statistically significant difference in overall immunohistochemical MMR status when using the age of 50 as a threshold for tumour analysis. Such a threshold would have missed 82.3% of cases with tumoral MMR deficiency and should not be included in lab protocols for EEC IHC analysis. Reflex testing of all EEC cases is highly advised as IHC testing is no longer solely about diagnosis of Lynch syndrome. Prospective evidence is required to clarify the role IHC scoring and semi-quantitative analysis should play in MMR status interpretation and patient management especially in the ever-evolving field of targeted therapeutics.

Disclosures This study was self-financed. Authors declare they have no conflict of interest, financial or otherwise.

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RECURRENCE AND SURVIVAL AFTER LAPAROSCOPY VERSUS LAPAROTOMY IN EARLY STAGE ENDOMETRIAL CANCER: FOLLOW-UP FIVE YEARS AFTER A RANDOMISED TRIAL

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10.1136/ijgc-2020-ESGO.215

Introduction/Background Laparoscopic hysterectomy has been proven to be a safe surgical procedure and is globally accepted as the standard treatment for early-stage endometrial cancer, despite insufficient data on long-term survival. Aim was to provide the five-years outcomes of a randomised Dutch trial on total laparoscopic hysterectomy (TLH) versus total abdominal hysterectomy (TAH) in early-stage low-risk endometrial cancer.

Methodology Follow-up of a multi-centre, randomised controlled trial on TLH versus TAH without routine lymphadenectomy. A total of 279 women with stage I endometrial cancer were enrolled between 2007–2009 in a 2:1 randomisation to undergo either TLH (n=185) or TAH (n=94). Primary outcome was disease-free survival. Secondary outcomes were primary site of recurrence, overall and disease-specific survival. The Kaplan-Meier survival curves and Cox proportional hazard ratios were applied.

Results Follow-up data of 253/279 patients are available. At a median follow-up time of 5.0 years, disease-free survival was 90.4% after TLH and 83.3% after TAH, HR 0.68 (95% CI 0.31–1.49). There were no port-site metastases and local recurrence rates were comparable. After adjustment for the covariates, overall survival outcomes were comparable between groups HR 0.64 (95% CI 0.33–1.26). Disease-specific survival was comparable between both groups.

Conclusion This is the first study reporting on survival among women with early-stage endometrial cancer randomised to TLH or TAH, without routine lymphadenectomy. No significant differences were found in disease-free, overall and disease-specific survival five-years postoperatively. This supports the widespread use of laparoscopic hysterectomy as primary treatment procedure for early-stage, low-grade endometrial cancer.

Disclosures None.

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PREDICTING LYMPHEDEMA ASSOCIATED WITH LYMPH NODE DISSECTION IN PATIENTS WHO UNDERGO SURGERY FOR ENDOMETRIAL CANCER: ROLE OF DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

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10.1136/ijgc-2020-ESGO.216

Introduction/Background Multimodal treatments have significantly improved oncological outcomes in patients with endometrial cancer. Therefore most of the patients are long-term survivors and may experience adverse effects related to treatment. Lymph node dissection in patients who undergo total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH+BSO) may be associated with adverse effects such as lymphedema. Several factors including number of removed lymph nodes and extent of lymph node dissection have been postulated to be associated with adverse events. However, in most studies the definition of the complications is poorly described and contradicting findings exist. In this prospective study we aim to assess the complications related to lymph node dissection in patients who undergo TAH+BSO and potential factors that predict adverse events.

Methodology We conducted this prospective study to assess the complications related to lymph node dissection in patients who underwent TAH+BSO for endometrial cancer. Patients with prior history of lower limb surgery, pelvic radiation and prior history of cancer treatment were excluded from study. Additional exclusion criteria were heart failure, uncontrolled thyroid abnormalities and other disorders associated with impaired lymphatic drainage and/or lower limb edema. Demographic and clinical characteristics including age, body mass index, pathologic stage, and extent of lymph node dissection were recorded. We also assessed complications related to lymph node dissection i.e. lymphedema, lymphatic leakage and lymphocele. Lymphedema was defined based on American Physical Therapy Association criteria. We applied Gynecologic Cancer Lymphedema Questionnaire to evaluate severity of symptoms related to lymphedema. Written informed consent was obtained from all patients and institutional review board approved the study.

Results A total of 135 patients with a mean age of 57.6 ± 11.5 underwent TAH+BSO during the study period. Lymph node dissection was performed in 83 (61.4%) patients. The extent of lymph node dissection was limited to pelvis in 18 (33.3%)