**Methodology** A prospective cohort study was performed including patients with endometrial cancer from 2014 to 2020 at Hospital Universitario Donostia. Two groups were studied based on their preoperative risk stratification: low-risk patients who underwent simple total hysterectomy and bilateral adnexectomy plus sentinel lymph node (SLN) biopsy of pelvic and aortic areas; and high-risk patients who also underwent pelvic and aorto-caval lymphadenectomy.

Results We analyzed 327 patients with a 91.35% survival at 60 months, with a median follow-up of 34.45 months (IQR 18.18–58.48).56 patients had nodal involvement. Log-rank test showed no significant differences in survival between patients without lymph node disease, those with isolated tumor cells (HR 0.62; 95% CI 0.08 – 4.67), treated micrometastases (HR 0.01 95% CI 0-.) and those with untreated micrometastases (HR 2.37 95% CI 0.31–18.04). Likewise, no significant differences were found in the survival of patients with macrometastases (HR 2.86; 95% CI 0.83 – 9.82). The presence of a positive aortic SLN increases the risk of mortality (HR 3.05; 95% CI 1.04–8.94), with a higher risk for macrometastases in aortic SLN (HR 3.20 95% CI 1.22–8.44) than including micrometastases (HR 2.02 95% CI 1.08–3.78).
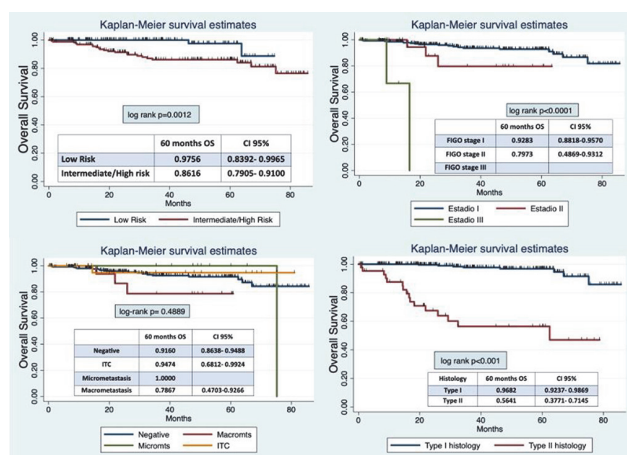
Abstract 2022-RA-1647-ESGO Figure 1
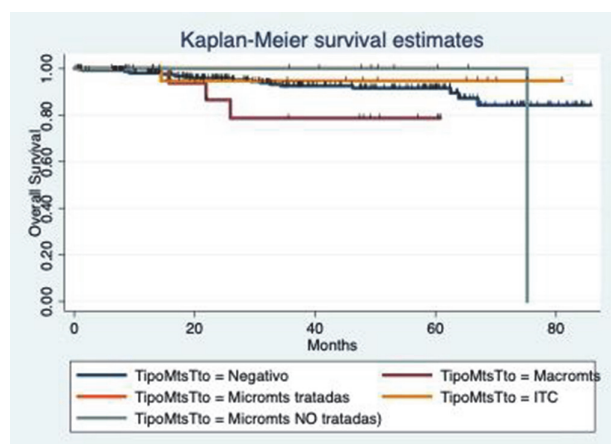
Abstract 2022-RA-1647-ESGO Figure 2

Conclusion Survival of patients with endometrial carcinoma is significantly associated with stage, tumor grade, histological type of tumor, preparative risk group and age of patients. The tumor volume of lymph node metastases does not show significant differences in overall survival. The presence of a positive aortic sentinel node micro or macrometastasis has a significant negative impact on prognosis.

LYMPHADENECTOMY IN HIGH-RISK ENDOMETRIAL CANCER

[1]Maria Laseca, [1]Octavio Arencibia, [1]Daniel González, [1]Andrés Rave, [1]Beatriz Navarro, [2]Avinash Ramchandani, [1]Alicia Martin. [1]*Hospital Universitario Materno Infantil de Canarias, Las Palmas de Gran Canaria, Spain*; [2]*Oncology, Hospital Universitario Insular de Canarias, Las Palmas de Gran Canaria, Spain*

Introduction/Background The role of lymphadenectomy in surgical management of endometrial cancer remains controversial. Lymph node metastases can be found in women who before surgery are thought to have cancer confined to the uterus. Removal of all pelvic and para-aortic lymph nodes at initial surgery has been widely advocated, and pelvic and para-aortic lymphadenectomy remains part of the FIGO staging system for endometrial cancer.The objective of this study was to determine the characteristics, complication rate and metastases location in high-risk endometrial cancer.

Methodology Retrospective study of patients with high-risk endometrial cancer was performed. All patients underwent surgery including complete lymph node staging by pelvic and para-aortic lymphadenectomy. Clinicopathological characteristics, complication rate and location of lymph node metastases were analyzed.

Results 147 women were diagnosed with high-risk endometrial cancer, representing 11.3% of all endometrial tumors in that period (n=1301).The mean age of the patients was 61.62 years, 88.4% were in the menopausal state and 40.8% of them had a BMI > 30. Regarding histopathology, the most common type of tumor was endometrioid adenocarcinoma (37.4%), followed by serous carcinoma (31.3%). Regarding histological grade, 10.9% were G1, 11.6% were G2, and 77.6% were G3. Regarding lymph node spread, 34 (23.1%) patients had metastases in pelvic and/or para-aortic lymph nodes. 26 patients (17.7%) had positive pelvic nodes and 19 patients (12.9%) had positive para-aortic nodes. Once the final staging was carried out with the FIGO criteria (2009), the most frequent stage was IA (38.8%) and stage IIIC was 23.1%. 21 patients (14.3%) presented some type of complication related to surgery, the most frequent complications being lymphedema (2.7%) and lymphocele (2.7%).

Conclusion In our study, the rate of lymph node metastases (pelvic and/or para-aortic) is 23.1% with a low rate of complications. We can affirm that it is a useful and safe technique.

EVALUATION OF THE IMPACT OF HRT ON ENDOMETRIAL THICKNESS AND THE DIAGNOSIS OF ENDOMETRIAL CANCER

[1]Natasha D'Souza, [2]Mohammed Daas, [2]Krishnayan Haldar, [2]John Latimer, [2]Helen Bolton, [2]Peter Baldwin, [2]Pubudu Pathiraja, [2]Michela Quaranta. [1]*Obstetrics and Gynaecology, Cambridge University Hospitals, Cambridge, UK*; [2]*Cambridge University Hospitals, Cambridge, UK*

Introduction/Background Following its introduction in the 1960s, the use of Hormonal Replacement Therapy (HRT) to treat postmenopausal symptoms has increased from 30% to 50%. However, this has resulted in an increased utilisation of services for the investigation of women with increased endometrial thickness (ET) subsequent to HRT.

Methodology This was a retrospective case-control study carried out in a tertiary institute in the UK. Data of 452 women referred to the hysteroscopy clinic for postmenopausal bleeding was collected over a 2-year period. The women were divided into 2 cohorts – group 1 on HRT (N= 206) and group 2- not on HRT (N= 246).

Results The mean age and BMI was 57 years and 27.54 kg/m^2 in group 1 and 61.54 years and 29.51 kg/m^2 in group 2. Analysis of group 1 revealed that the mean ET was 9.5 mm (95% CI 6.152–12.85 mm) in women who were diagnosed with an endometrial malignancy (N=8) and 6.89 mm (95% CI 6.404–7.381 mm) in women with benign endometrial histology (N=148). This difference was statistically significant (t-test; p=0.0201). However, further evaluation using a ROC curve, an ET of 9.5 mm leads to a sensitivity of only 50% to cancer (specificity = 85.8%) while the current cut off, 4 mm, detected nearly all cancers. This result was further corroborated by a ROC analysis of the non-HRT group which demonstrated similar results.

Conclusion Increasing HRT utilisation will lead to a rise in the number of women with benign endometrial thickening. This may lead to a rise in unnecessary referrals. Our initial work has not demonstrated that increasing the ET cut off is useful in this group, however a downside of our work is the small number of patients with cancer in the HRT group. Thus larger robust studies would be useful to evaluate if this hypothesis has clinical merit.

SLN MAPPING IN HIGH RISK ENDOMETRIAL CANCER: RELEVANCE OF SURGICAL ALGORITHM

Virginia García Pineda, Violeta Romero, Elena Rodríguez, Myriam Gracia, María Alonso, Jaime Siegrist, Maria Dolores Diestro, Ignacio Zapardiel, Alicia Hernández. *Gynaecological Oncology, La Paz University Hospital, Madrid, Spain*

Introduction By the recent inclusion of sentinel lymph node (SLN) technique in lymph node staging of high-risk subtypes of early-stage endometrial cancer, a cleaned-up technique of sentinel node is needed. One of the most relevant prospective studies about validation of the sentinel lymph node technique in high-risk endometrial cancer, SENTOR trial by Cusimano et al. describes an overall detection rate of 97.4% with the use of Indocyanine green as the sole tracer. It is essential to be systematic and meticulous in sentinel lymph node detection with the inspection of main retroperitoneal pelvic spaces without ignoring the presacral region. As recommended by ESGO quality standards, this surgery must be performed by gynecological oncologist surgeons.

Methods This video has been edited based on surgeries performed in our department in patients with early stage endometrial cancer following the surgical algorithm established for the detection of SLN.

Results Surgical technique video of bilateral pelvic sentinel node biopsy in high-risk endometrial cancer is presented. The aim of this video is to highlight the importance of step-by-step (five steps) technique in order to achieve and accurate technique improving bilateral detection rate and decreasing false negative rate in these cases.1. Cervical injection technique of ICG.2. Inspection of main lymphatic pathways of drainage.3. Opening retroperitoneal spaces with a meticulous SLN dissection.4. Identification of echelon lymph nodes.5. Safe extraction of sentinel lymph nodes.

Conclusions With the inclusion of SLN biopsy like an alternative of systematic lymph node dissection in high-risk endometrial cancer, a systematic surgical technique is important in order to achieve the best accuracy of the technique. Moreover, the best detection rates are achieved in experienced hands with the use of ICG and careful inspection of retroperitoneal spaces (including presacral space).

Fertility/Pregnancy

EFFECTS OF CHEMOTHERAPY ON OVARIES OF PREGNANT MICE: A PILOT STUDY

[1]Teska Schuurman, [1]Ji-Ying Song, [1]Vera Wolters, [1]Marieke van de Ven, [1]Nienke van Trommel, [2]Ina Beerendonk, [1,3]Frederic Amant, [1]Christianne Lok. [1]*Netherlands Cancer Institute, Antoni van Leeuwenhoek, Amsterdam, Netherlands*; [2]*Radboud University Medical Center, Nijmegen, Netherlands*; [3]*UZ Leuven, Leuven, Belgium*

Introduction/Background It is unknown if future fertility is compromised by the administration of chemotherapy during pregnancy. The aim of this study was to identify if chemotherapy affects the maternal ovaries during pregnancy, whether these effects depend on type of chemotherapy and duration of exposure, and if pregnancy protects against chemotherapy-induced gonadotoxicity.

Methodology Pregnant 8-week-old female BL6 mice (N=115) were exposed to 6 different single chemotherapeutic agents (carboplatin, cisplatin, paclitaxel, epirubicin, doxorubicin or cyclophosphamide) or saline at gestational day (GD) 13.5. The mice were sacrificed at GD 15.5 or GD 18.5. Ovaries were assessed by histopathology and immunohistochemistry. Follicle count was determined per follicle stage and per treatment modality.

Results Maternal ovarian damage was demonstrated by the presence of apoptosis and necrosis in preantral follicles (figure 1). The extent of this damage depends on type of chemotherapy and duration of exposure (2 or 5 days). After short exposure, 81% of ovaries showed histopathologic signs of damage compared to 36% after long exposure, which might suggest a transient effect. Loss of primordial follicles (PMFs) was observed after both short and long exposure, with a reduction of more than 70%. Evidence of DNA damage, as demonstrated by phospho-H2AX expression, was present in 23% (range 0–89%) of PMFs exposed to chemotherapy, but only in the short exposure group (figure 2). Overall, the least damage was seen after administration of paclitaxel.