

endocervium and endometrium in patients with endometrial cancer. Due to the ease of obtaining the material from the cervix during cytological screening, the expression of selected proteins might be used as a predictive factor in endometrial cancer.

**Methodology** The study was performed on group of 101 patients with type I and II endometrial carcinoma using immunohistochemical methods.

**Results** Our results showed that both cadherins were expressed in the endocervium. In endometrial cancer type I, no significant differences were found in the expression of cadherins between the tumor and the cervix. It is possible to suspect an evenly ongoing neoplastic process both in the primary site and in the cervix. Statistically significant differences in the results turned out to be in the case of type II endometrial cancer, where a higher cadherin expression was noted in the tumor mass compared to the cervix, which suggests a greater dynamics of the EMT process in the tumor itself than in the cervix.

**Conclusion** Our results may have significant clinical outcomes in the diagnosis of endometrial cancer.

**2022-RA-1106-ESGO LAPAROSCOPIC VERSUS OPEN ABDOMINAL HYSTERECTOMY IN ENDOMETRIAL CANCER PATIENTS: ANALYSIS OF OUTCOME ACCORDING TO RISK GROUP**

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**Introduction/Background** For treatment of low-risk endometrial cancer, laparoscopic hysterectomy is the standard surgery approach. On the other hand, oncologic safety of minimally invasive technique in high risk disease has not yet been proven.

**Methodology** Between 1996 and 2010, 359 endometrial cancer patients underwent laparoscopic or abdominal hysterectomy at Jena University Hospital. Recurrence rate and survival were analysed depending on surgical approach and risk categorization by classical histopathology (low-risk: stage IA without nodes metastasis, G2 or G2 with endometrioid carcinoma; high-risk: stage IB or G3 or with nodes metastasis or serous papillary or clear cell type). Median follow-up was 72 months (minimum=2, maximum=214).

**Results** In low risk patients, disease-free survival (DFS) rate was 95.6% and overall survival (OS) rate was 96.6% after laparoscopic hysterectomy (n=158) compared to DFS rate of 92.9% and OS rate of 100% after abdominal hysterectomy (n=43). In high risk patients, we found a DFS rate of 75.3% and OS rate of 85.1% in the laparoscopy group (n=97), while DFS rate was 73.3% and OS rate was 84.2% in the open surgery group (n=61). Proportional hazards assumption of Kaplan-Meier curves was not satisfied.

**Conclusion** Long-term oncologic outcome of the laparoscopic procedure was not inferior compared to open abdominal hysterectomy in both low risk and high risk endometrial carcinoma patients according to data from our cohort. Results from patients treated in our center between 2011 and 2021 are under progress.

**2022-RA-1124-ESGO PREDICTORS OF INVASIVE CARCINOMA IN ENDOMETRIAL HYPERPLASIA AND ITS INFLUENCE ON SURGICAL MANAGEMENT**

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**Introduction/Background** Endometrial hyperplasia consists of the proliferation of endometrial glands due to chronic exposure to high estrogen levels without the compensatory stimulus of progesterone. Other related factors are age, menopause and obesity. Transformation to endometrial cancer is greater if the hyperplasia is atypical; however, no reliable predictors have yet been described. The aim of this study is to analyze factors that can predict the evolution of hyperplasia to endometrial carcinoma.

**Methodology** A retrospective study was performed on patients diagnosed with endometrial hyperplasia at Hospital La Paz from January 2016 to December 2021. Factors that could influence the development of endometrial cancer were analyzed, as well as those that could influence oncologic outcomes.

**Results** 169 patients with endometrial hyperplasia were included, of which 41 progressed to carcinoma. In this group 92.7% of the carcinomas were endometrioid, 82.9% were diagnosed at FIGO stage IA, 68.3% were G1; statistical significance was observed in these associations. 3.6% of patients suffered recurrences, in which endometrioid carcinoma, stages IA, IB and IV, G2 and G3 and combined treatment showed significant association with this event. Of the disease-free patients, 96.8% had endometrioid carcinoma and 87.1% had stage IA. No significant differences were detected in survival studies.

**Conclusion** Advanced age, menopause, atypical hyperplasia, family history of cancer (specifically breast, colon and endometrial) and surgical treatment are statistically significantly associated with greater progression to endometrial cancer.

**2022-RA-1128-ESGO HAS ENDOMETRIAL CANCER TREATMENT CHANGED DURING THE LAST YEARS? A CANCER REGISTRY DATA-BASED APPROACH TO MONITOR EXPECTED TREATMENT CHANGES AFTER THE RELEASE OF THE CORRESPONDING S3 GUIDELINE**

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**Introduction/Background** With approximately 11.000 new cases annually, endometrial cancer is the fourth most malignancy in women in Germany. In April 2018 the S3 endometrial cancer guideline was released as part of the Germany oncology guideline program to promote quality and transparency of medical care. The S3 guideline advised on various aspects of endometrial cancer treatment such as surgical strategies and adjuvant therapy. Recommendations of this S3

guideline have been implemented for more than four years. Very recently, the introduction of the molecular classification of endometrial carcinoma (EC) as a prognostic and predictive factor is going to challenge the morphological classification used so far. Based on cancer registry data we analysed how clinical practice has changed according to guideline recommendations.

**Methodology** A data set of patients with endometrial cancer diagnosed prior (2016–2017) and after (2019–2020) publication of the S3 guideline was extracted from the Hamburg Cancer Registry (HCR). Reports on diagnosis, treatment, and course of disease were evaluated and compared between both groups.

**Results** After publication of the S3 guideline changes in the treatment management of patients with endometrial cancer over time were observed in the Hamburg Cancer Registry data. Regarding surgical therapy, a decrease in lymphadenectomies performed in patients with low-risk type I endometrial cancer and changes in surgical techniques (such as open versus laparoscopic surgery) occurred.

**Conclusion** Our study demonstrates that cancer registry data can be used to monitor the reality of care for patients with endometrial cancer across institutions and sectors of treatment. In order to further improve this valuable source of data, more complete and comprehensive collection of cancer registry data should be intensively pursued.

#### 2022-RA-1129-ESGO ANEMIA OF CANCER, TRANSFUSION RATES AND FRAILITY STATUS PREDICT SURVIVAL IN WOMEN WITH ENDOMETRIAL CANCER

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**Introduction/Background** Perioperative red blood cell transfusions (RBC) have been associated with increased morbidity and worse oncologic outcomes in various solid neoplasms. In order to elucidate whether RBC themselves, the preoperative anemia of cancer (AOC) or the impaired global health status might explain this impact on patients with endometrial cancer (EC), we performed a retrospective, single-institution cohort study.

**Methodology** Women older than 60 years with EC were included. The impact of RBC, AOC and frailty status determined by the G8 geriatric Screening tool (G8 Score) as well as clinical-pathological cancer characteristics on progression-free survival (PFS) and overall survival (OS) were determined by using the Kaplan Meier method and the Cox regression analyses.

**Results** In total, 152 EC patients (mean age: 71.0 +/-7.4 years) with a median follow-up time of 31.0 [8.0 – 68.5] months entered the study. EC patients receiving RBC were faced with a significantly decreased 5-year PFS (79.8% vs. 26.0%;  $p<0.001$ ) and 5-year OS (82.6% vs. 25.7%;  $p<0.001$ ). In the univariable Cox regression analysis, FIGO-Stage, histological grade of differentiation, postoperative residual tumor burden and RBC, as well as preoperative frailty status for both, 5-year PFS and 5-year OS were associated with decreased survival rates (all  $p$ -values  $<0.05$ ). In the multivariable analyses, besides selected clinical-pathological cancer characteristics (FIGO-Stage and

histological grade of differentiation), the RBC solely retained significance as a relevant prognostic parameter for PFS (HR: 1.76; 95%-CI [1.01–3.07]) and OS (HR: 2.38; 95%-CI [1.50–3.78]).

**Conclusion** These results underline the impact of RBC and selected clinical-pathological cancer characteristics on the prognosis of patients with EC. To which extent a multidimensional diagnostic and treatment algorithm covering standardized transfusion management, the clarification of AOC, as well as the determination of global health status by validated frailty assessment tools support the maximal surgical efforts in the elderly patients with EC needs further evaluation.

#### 2022-RA-1181-ESGO SURVIVAL OUTCOMES AND RECURRENCE PATTERNS OF LAPAROTOMY VERSUS MINIMAL INVASIVE SURGERY IN WOMEN WITH INTERMEDIATE- AND HIGH-RISK UTERINE CANCER AT A TERTIARY REFERRAL CENTER

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**Introduction/Background** Minimal invasive surgery (MIS) has emerged as the gold standard for surgical staging of women with assumed early-stage endometrial cancer (EC). In cervical cancer the use of MIS has decreased after publication of the LACC-trial in 2018. We sought to compare women treated by laparotomy versus MIS for EC in respect to survival outcomes and recurrence.

**Methodology** Women with assumed uterine-confined endometrioid grade 3 and non-endometrioid EC from 2006 to 2021 were identified in our institutional database. Risks of recurrence and cancer-specific death were estimated, stratified by surgical approach. Appropriate statistical tests were applied.

**Results** 786 women were identified, 463(58.9%) laparotomy and 323(41.1%) MIS (82/323 laparoscopy, 241/323 robotic), see figure 1 for distribution over time. Patient and tumor characteristics are described in table1. There was no difference between groups regarding age, BMI, smoking, ASA, histology, presence of LVIS, or adjuvant therapy. Significantly more women in the laparotomy group were stage III (29% vs 21%) and IV (7% vs 2%), respectively ( $p<0.0001$ ). Nodal assessment and anatomic distribution of recurrences varied between groups, see table1. There were more women in the laparotomy group with isolated vaginal recurrences and multiple site recurrences,  $p=0.04$  and  $p=0.02$ , respectively. More women in the laparotomy group underwent comprehensive lymphadenectomy and more women in the MIS group underwent sentinel lymph node biopsy. Acknowledging the small number of isolated nodal recurrences, there was no significant difference in rate of these recurrences ( $p=0.25$ ). When adjusted for age, histology, stage and LVSI, risk of recurrence and cancer-specific death was not significantly different between groups, HR=1.28 (95%CI, 0.94 – 1.74) and HR=1.19 (95%CI, 0.82 – 1.74), respectively.