and sarcoma), who underwent PE with curative intention at our institution between 1999 and 2021.

Overall survival (OS) was assessed with Kaplan-Meier analysis. Differences in survival according to type of PE (anterior, posterior or total) were assessed using log-rank tests. Multivariate analysis using Cox-proportional hazard models was performed to determine the impact of age on survival outcomes. Results were considered statistically significant when p<0,05.

Result(s)* In total, 56 patients were included in the study. Average age at the time of surgery was 58,3 (SD 14,4) years. Distribution of tumor site was: ovary (n=32), cervix (n=10), endometrium (n=8), vulva/vagina (n=6). PE was anterior (n=6), posterior (n=31) or total (n=19).

One case of intraoperative complication was observed, with a vascular lesion that was sutured with no further aggravation. Overall, morbidity occurred in 46,4% of patients; 18 (32,1%) developed early complications and 8 (14,3%) developed at least one late complication, including 7 gastrointestinal, 3 urinary, 4 incision hernias and 11 infectious complications. Fourteen cases required reintervention due to complications. Only one case of early postoperative death was recorded.

The 5-year OS in remaining cases was 31%. Median follow-up time was 22,5 months (range: 1-242). Mean overall survival tended to be longer for patients with anterior PE (150,6 months, SD 49,5) than for patients with posterior PE (51,0 months, SD 11,3) or total PE (41,2 months, SD 14,3), although this difference was not statistically significant (p=0,113). The 5-year OS was 60%, 25% and 25%, respectively. Age had no impact on survival.

Conclusion* PE is still the only curative option for selected patients, when chemoradiation and/or primary surgery failed in recurrent or persistent gynecological malignancies. When performed by expert gynecologic-oncology surgeons, this intervention has an acceptable survival and perioperative morbidity rate.

644 LOCAL ANDROGEN SYNTHESIS AND METABOLISM IN ENDOMETRIAL AND OVARIAN CANCER

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Introduction/Background* Endometrial (EC) and ovarian cancer (OC) are female pathologies that express androgen receptor (AR) to different extents, however, the role of the AR ligands, i.e., androgens and their 11-oxygenated metabolites in EC and OC onset and progression is poorly understood. Active androgens can form from the abundant precursor dehydroepiandrosterone sulfate (DHEA-S) from the adrenal cortex; however, local synthesis and metabolism in endometrial and ovarian cancer tissue may have important roles as well.

Objective To explore the local androgen synthesis and metabolism in EC and OC.

Methodology Gene expression of key enzymes involved in the androgen synthesis and metabolism was examined in model cell lines of type I and II EC, and high grade serous OC. The Cancer Genome Atlas (TCGA) database was searched for the expression of these genes in EC and OC tissues using the UCSC Xena platform.

Result(s)* Our gene expression data indicate that model cell lines of EC and OC can potentially synthesize the potent androgens testosterone (T) and 5α-dihydrotestosterone (5α-DHT) from DHEA-S, as well as the equally potent metabolites 11-keto-T and 11-keto-DHT from the adrenal precursor 11-OH-androstendione. Interestingly, the expression of *AKR1C3*, encoding an aldo-keto reductase family enzyme that catalyses the formation of T and 11-keto-T, and the expression of *SRD5A1*, encoding a steroid 5α-reductase that catalyses the conversion of T to 5α-DHT were higher in certain model cell lines of EC and OC comparing to the respective controls. According to the TCGA database, *SRD5A1* expression correlates with a worse overall survival in EC, whereas *HSD11B2* expression with a positive progression free survival in OC.

Conclusion* Gene expression analysis indicate that active androgens and 11-oxyandrogens can form in EC and OC. Further metabolism studies are in progress. Assessment of the effect of androgens and their metabolites on EC and OC development and determination of their systemic levels may unravel novel therapeutic targets and new diagnostic and prognostic biomarkers.

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663 PROGNOSTIC FACTORS AND SURVIVAL OF PATIENTS WITH UTERINE SARCOMA – A GERMAN UNICENTRIC ANALYSIS

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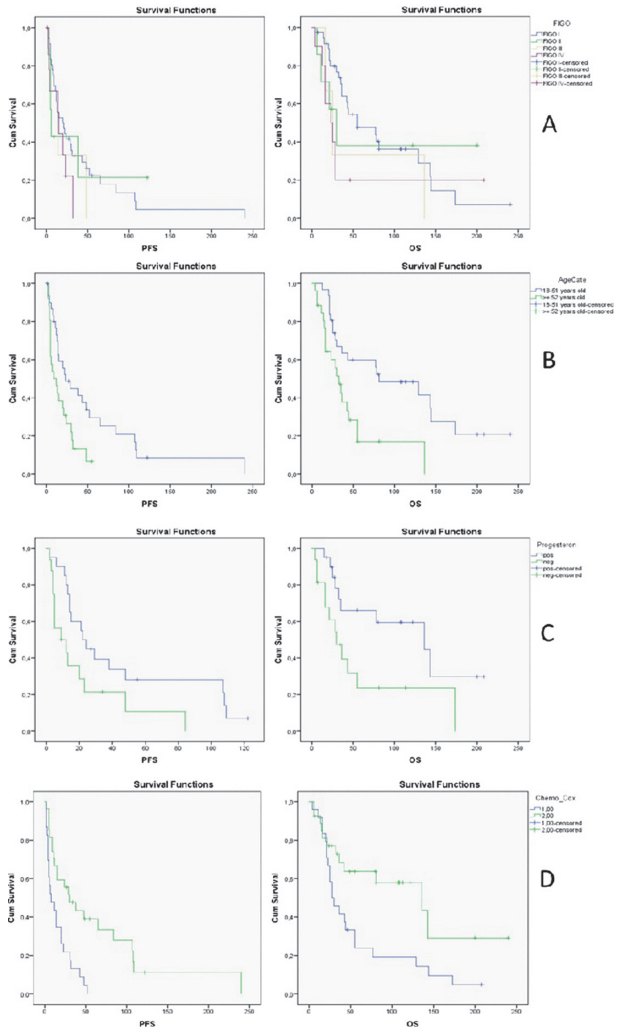
Introduction/Background* Uterine sarcoma (US) as a histologically heterogeneous group of tumours is rare and associated with a poor prognosis. This study aimed to describe the survival and identify prognostic variables in patients with US.

Methodology This unicentric, retrospective cohort study includes 57 patients with US over 18 years treated at the Department of Obstetrics and Gynaecology at University Hospital Freiburg, Germany between 1999 and 2017. Progression-free survival (PFS) and overall survival (OS) were calculated and visualised in Kaplan-Meier curves. Prognostic factors for total cohort and Leiomyosarcoma (LMS) patients were identified using log-rank test and Cox-regression.

Result(s)* 44 LMS, seven low grade-endometrial stromal sarcoma (LG-ESS), four high grade-ESS and two undifferentiated US patients were identified. The median age at time of diagnosis was 51.0 years (range 18–83). The median follow-up time was 35 months. PFS for the total cohort was 14.0 months (95%-Confidence-Interval (CI) 9.7-18.3) and OS 36.0 months (95%-CI 22.1–49.9). Tumour pathology was prognostically significant for OS with LG-ESS being the most favourable (mean OS 150.3 months). In the multivariate analysis, patients over 52 years showed a four times higher risk for tumour recurrence (hazard ratio (HR) 4.4; 95%-CI 1.5-12.9). Progesterone receptor negativity was associated with a two times higher risk for death (HR 2.8; 95%-CI 1.0-7.5). For LMS patients in the univariate analysis young age (p=0.04), clear surgical margins (p=0.008), low FIGO stage (p=0.01) and no application of chemotherapy (p=0.02) were statistically significant positive factors for OS.

Conclusion* In this analysis, tumour histology, age at time of diagnosis and progesterone receptor status were prognostic factors for US. Unfavourable OS in LMS patients was



Abstract 663 Figure 1 Kaplan-Meier curves for progression-free survival (PFS) and overall survival (OS) stratified by A: FIGO-stage, B: age category at time of diagnosis over or under 52 years, C: progesterone receptor status and D: application of chemotheraphy (1 = yes, 2 = no)

associated with advanced FIGO stage, suboptimal cytoreduction and application of chemotherapy. In small cohorts, the confirmation in multivariate analysis stays difficult, although trends can be shown. For this aggressive but rare tumour international prospective, multicentric databases are needed to provide more concordant data. Consequent and standardised immunohistopathological workup as a basis for molecular tumour boards is worthwhile. More randomised controlled trials on adjuvant therapy are necessary to give physicians convincing treatment options especially in the recurrent situation.

666 SENTINEL LYMPH NODE BIOPSY AFTER NEOADJUVANT CHEMOTHERAPY IN NODE POSITIVE PATIENTS WITH BREAST CARCINOMA: WE NEED TO IMPROVE

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Introduction/Background* False negative rate (FNR) of SNLB in breast cancer patients who are node positive prior to Neo-adjuvant chemotherapy (NAC) can be improved by removing more than two sentinel nodes. Our objective was to analyse identification rate (IR) and false negatives rates (FNR) in these patients according to the number of sentinel nodes (SN) removed.

Methodology A retrospective cohort study was performed from October 2012 to December 2018. Patients with invasive breast cancer, who were clinical node positive at diagnosis, underwent sentinel node lymph biopsy (SLNB) and axillary lymph node dissection after NAC.

Pathological analysis of SN was stained by haematoxylin and eosin and immunohistochemistry or by one-step nucleic acid amplification. SN was considered positive if any residual disease was detected. IR was defined as the number of patients with successful identification of SN. False negative was considered when there was residual disease in axillary lymph node dissection and SN was negative.

Result(s)* A total of 112 patients with invasive breast cancer and clinical proven node involvement at diagnosis were included. IR of SNLB was 94,6% and FNR was 15.4%. Removing at least three sentinel nodes, FNR decreased to 10%. At least three SN were obtained in 56 patients (50,8%).

Conclusion* : IR is adequate but FNR is high. Removing three or more SN decreases FNR from 16 to fewer than 10% in clinically node-positive breast cancer patients who undergo NAC. This approach would benefit half of patients. Other approaches should be taken for axillary lymph node staging after NAC.

702 PROSPECTIVE, MULTICENTER STUDY OF APATINIB IN TREATING GYNECOLOGICAL CANCER PATIENTS: A REAL-WORLD STUDY FROM CHINA

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Introduction/Background* Apatinib is emerging as an effective treatment for patients(pts) with gynecological cancer. However, the data of gynecological cancer treated by apatinib in the real-world setting is not reported. In this real-world study, we aim to explore the efficacy and safety of apatinib in the treatment of pts with gynecological cancer.

Methodology This was a prospective, multicenter observational study in a real-world setting. Pts aged ≥18 years with well diagnosed gynecological cancer were included. The pts received apatinib treatment. The dose of apatinib was selected by the investigator. The primary endpoint was progression-free survival (PFS). The secondary endpoints were overall survival rate (OS), objective response rate (ORR), disease control rate (DCR) and safety profile. Tumor response was assessed by RECIST1.1.

Result(s)*

From Oct 2020 to May. 2021, 113 well diagnosed gynecological cancer pts were enrolled in this study. Among them, 26 of the enrolled pts were cervical cancer in second-line therapy and above. The treatment regimens were: apatinib combined with chemotherapy (7/26), apatinib monotherapy (7/26),