

prognosis. The rarity of this tumor makes the risk of its development undetermined.

**EPV113/#323** **PROGNOSTIC FACTORS AND ONCOLOGIC OUTCOMES FOR PATIENTS TREATED WITH ADJUVANT CHEMOTHERAPY AND VAGINAL VAULT BRACHYTHERAPY FOR STAGE I ENDOMETRIAL SEROUS CARCINOMAS**

<sup>1</sup>V Dorion\*, <sup>2</sup>V Samouëlian, <sup>1</sup>M-C Beauchemin, <sup>2</sup>B Cormier, <sup>2</sup>E Tremblay, <sup>1</sup>M Barkati. <sup>1</sup>Centre hospitalier de l'Université de Montréal, Radiation Oncology, Montreal, Canada; <sup>2</sup>Gynecologic Oncology Service, CHUM, Université de Montréal, Department of Obstetrics and Gynecology, Montreal, Canada

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**Objectives** Endometrial serous carcinomas (ESC) hold a poor prognosis, even at early stages. This study evaluates the outcomes and prognostic factors for stage I (FIGO 2018) ESC treated with adjuvant chemotherapy and vaginal vault brachytherapy (VBT).

**Methods** Patients were selected through a database of patients treated with hysterectomy for stage I ESC between 2007 and 2019 at the Centre Hospitalier de l'Université de Montréal. The intended adjuvant treatment had to be 6 cycles of Carboplatin and Paclitaxel and VBT. Time to events were analyzed by Kaplan-Meier. Cox regression analysis was performed to identify prognostic factors.

**Results** A total of 76 patients with stage IA (N=64) and IB (N=12) ESC were included in this study. Median age at diagnostic was 67. Median follow up was 60 months. 5-year overall survival (OS) and progression-free survival (PFS) were 83% and 79.5%. Nine patients relapsed, 3 with local recurrence, 3 with regional recurrence and the other 3 with distant recurrence. Amongst the known prognostic factors included in univariate analysis, positive peritoneal washing and advanced age were significant prognostic factors for OS ( $p < 0.0001$  and  $p = 0.013$ , respectively). Age, isthmus invasion, deep myometrial invasion and positive peritoneal washings were significant prognostic factors for PFS ( $p = 0.049$ ,  $p = 0.024$ ,  $p = 0.022$  and  $p < 0.0001$ , respectively).

**Conclusions** In stage I ESC, adjuvant chemotherapy and VBT was associated with good oncologic outcomes. Advanced age and positive peritoneal washings were significant prognostic factors for OS. Further studies are needed to assess whether a subgroup of patients would benefit from treatment intensification or de-escalation.

**EPV114/#325** **EXPRESSION OF AQUAPORINS IN HUMAN ENDOMETRIAL CANCER: IDENTIFICATION AND REGULATION BY OVARIAN HORMONES IN CARCINOGENESIS OF ENDOMETRIAL CANCER**

<sup>1</sup>S Khan\*, <sup>1</sup>A Yool, <sup>2</sup>C Ricciardelli. <sup>1</sup>Adelaide Medical School, University of Adelaide, Physiology, Australia/Adelaide, Australia; <sup>2</sup>Adelaide Medical School, University of Adelaide, Discipline of Obstetrics and Gynaecology, Robinson Research Institute, Australia/Adelaide, Australia

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**Objectives** Aquaporins contribute to pathogenesis of Endometrial cancer. Our study presents the first screen of grade I and grade III endometrial cancer cell lines for all 13 AQP classes

in response to physiological doses of estrogen and progesterone.

**Methods** Ishikawa (IKC, grade I) and MFE-280 (grade III) were assessed with estrogen and progesterone at relevant doses, at multiple time points for cell proliferation, motility (3D migration and invasion assays), and cytoskeletal organisation. Patterns of AQP expression were compared in IKC and MFE-280 by quantitative (q) PCR and western blot (WB).

**Results** Cell numbers, 3D migration and invasiveness were increased in IKC by estrogen and decreased by progesterone in a dose- and time-dependent manner. Estrogen induced formation of lamellipodia in IKC. The EC50 and IC50 values for estrogen and progesterone were 1nM and 100nM respectively. Transcript levels of AQPs 0, -2, -3, -4, -5, -8 were significantly decreased by estrogen and progesterone in IKC, whereas AQP11 and AQP12 were increased. In contrast, in MFE-280 cells, estrogen and progesterone caused an increase in transcript levels for AQPs 3, -4, -7, -8, whereas expression of AQPs 0, and -11 were decreased. Protein expression of AQP-1 and -4 was confirmed by WB.

**Conclusions** These findings indicate the potential role of aquaporins in progression and invasion of endometrial cancer, and highlight the previously unstudied AQPs 11 and 12 as targets of potential interest. Outcomes here provide a foundation for further exploration of aquaporin inhibitors in decreasing the progression of EC, and insights into new therapeutic strategies

**EPV115/#333** **INTERIM ANALYSIS OF 10-YEAR DATA REGARDING PRESENTATION AND MANAGEMENT OF UTERINE CARCINOSARCOMA (UCS) CASES ACROSS THE THAMES VALLEY CANCER ALLIANCE NETWORK**

<sup>1</sup>A Gkorila\*, <sup>2</sup>S Smyth, <sup>3</sup>P Tupper, <sup>4</sup>A McCulloch, <sup>1</sup>N Sadeghi, <sup>1</sup>V Le Thanh, <sup>1</sup>A Sattar, <sup>1</sup>S Spencer, <sup>1</sup>K Zarrinnejad, <sup>2</sup>M Abdalla, <sup>2</sup>S Addley, <sup>1</sup>J Rencher, <sup>1</sup>G Sharma, <sup>1</sup>A Kashif, <sup>5</sup>S Siddiki, <sup>2</sup>M Alazzam, <sup>2</sup>H Soleymani Majid. <sup>1</sup>Oxford University Hospitals NHS Foundation Trust, Obstetrics and Gynaecology, Oxford, UK; <sup>2</sup>Oxford University Hospitals NHS Foundation Trust, Gynaecological Oncology, Oxford, UK; <sup>3</sup>Buckinghamshire Healthcare NHS Trust, Obstetrics and Gynaecology, Aylesbury, UK; <sup>4</sup>Royal Berkshire Hospital NHS Foundation Trust, Obstetrics and Gynaecology, Reading, UK; <sup>5</sup>Great Western Hospitals NHS Foundation Trust, Obstetrics and Gynaecology, Swindon, UK

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**Objectives** UCS comprises <5% of uterine malignancies, accounting for >15% associated mortality. With no established guidelines, we present our experience to determine clinical characteristics, treatment modalities and histology outcomes of UCS.

**Methods** We conducted a multicentre retrospective cohort study, including all surgically managed UCS cases between March 2010 and January 2020. Data was collected on patients' demographics, medical history, pre-operative and final histology and FIGO staging, peri-operative and post-operative findings.

**Results** 82 (9.7%) UCS cases were identified from a total of 847 surgically managed uterine cancers, with 51 diagnosed with UCS. 3 cases were down and 12 up-staged following surgery. 15 cases of MRI lymphadenopathy led to a PPV of 40%. Positive lymph nodes and omentum were identified in 15.8% and 11.3% of cases respectively, with half of lymph node metastases diagnosed following systematic dissection (the majority of which were LVSI positive). There were no operative complication themes.