patterns in women with FIGO2009 stage II uterine cancers stratified by surgical approach.

**Methods** Women diagnosed with stage II uterine cancer 2006–2021 were identified in our institutional database. Progression free and overall survival (PFS and OS) amongst patients after laparotomy or MIS was compared.

**Results** Of 132 patients, 92 (70%) underwent laparotomy and 40 (30%) underwent MIS. Median OS was 10.1 years (95% CI 6.3–13.9), PFS at 1 and 5 years was 81.6% (95% CI 73.7–87.4) and 68.3% (95% CI 75.0–75.9), respectively, figure 1. When adjusting for age at surgery, histology and adjuvant therapy there was no difference in overall mortality risk or risk of recurrence between the two surgical approaches (p=0.66 for OS, p=0.405 for RFS). Patient and tumor characteristics described in table 1. Anatomic distribution of recurrences was similar in both groups, table 2. In regards to adjuvant therapy 39% received none, 55% received chemotherapy and 5% received radiotherapy. Of the 14 women with isolated vaginal recurrences, 10 were salvaged, 3 are dead of disease and 1 is alive with disease.

**Conclusions** Laparotomy and MIS appear to have comparable risks of recurrence and overall mortality in women with stage II uterine carcinoma. Isolated vaginal recurrences can be salvaged in this mainly radiotherapy-naïve population.

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**EP101/503 RELEVANCE OF GENOMIC INSTABILITY SCORE, TUMOR MUTATIONAL BURDEN, AND TUMOR INFILTRATING LYMPHOCYTES AS BIOMARKERS IN UTERINE SEROUS CARCINOMA**

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**Objectives** Uterine serous carcinomas (USC) represent 10% of endometrial carcinomas but nearly 40% of deaths. We characterized genomic instability (GIS), tumor mutational burden (TMB), and density of tumor infiltrating lymphocytes (TILs) in patients with USC.

**Methods** A single institution, retrospective cohort study analyzed patients with USC following hysterectomy. In collaboration with Myriad Genetics, we determined GIS score and TMB from archived specimens. Cox proportional hazards models evaluated associations of molecular factors with survival. Using immunohistochemistry, we evaluated tumoral expression of CD3, CD4, CD8. T-tests were conducted to evaluate associations of TILs with GIS and tumor recurrence.

**Results** We evaluated 53 patients with USC; 66% (n=35/53) presented with advanced disease (stage III-IV). Median GIS was 31 (range: 0–52) and not associated progression-free survival (PFS) or overall survival (OS). Median TMB was 1.35; patients whose tumors exhibited TMB >1.35 mutations/megabase (median) had improved PFS and OS (p=0.005, 0.002). Two tumors had elevated CD3+ TILs (>75th percentile) and low GIS (<31). Tumors with elevated CD3+ and CD4+ immune cells had significantly higher mean GIS (p=0.013, p=0.002). Tumors with both low GIS and low-normal TILs (<75th percentile) had lower recurrence rates (p=0.2).

**Conclusions** TMB >1.35 mutations/megabase was associated with improved survival. Alternate TMB thresholds may provide prognostic value for less immunogenic tumors, like USC. In this limited data set, GIS was not associated with survival or recurrence. Patients with low GIS and low-normal TIL infiltration had lower recurrence rates, unlike other solid tumors. Additionally, the presence of CD3/CD4+ immune cells may be a marker of GIS.

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**EP102/#380 SENTINEL LYMPH NODE MAPPING IN ENDOMETRIAL CANCER USING INDOCYANINE GREEN. PRELIMINARY EXPERIENCE AT HOSPITAL DE TALCA, CHILE**

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**Objectives** To validate sentinel lymph node (SLN) mapping using indocyanine green (ICG), in endometrial cancer staging.

**Methods** A prospective study was conducted between January and December of 2021 at hospital de Talca, Chile. All patients with clinical stage 1 endometrial cancer of all grades and histories, were included. At the beginning of the procedure, 1 ml of ICG was injected superficially and 1 ml deep at 3 and 9 o’clock of uterine cervix of all patients. Subsequently, SLN mapping was performed followed by standard staging with pelvic lymphadenectomy (PLND) with or without paraaortic lymphadenectomy (PALND). Identified sentinel nodes were processed with ultrastaging technique in our pathology department.

**Results** Thirty-three patients were enrolled. Histology was endometrioid in 81.8% (27 cases) and non-endometrioid in 18.2% (6 cases). Nine patients had high-grade endometrioid histology. All patients underwent complete PLND and in 20% PALND was also done. At least one SLN was detected in 100% of patients. Bilateral detection occurred in 30 of 33 patients (90.9%). The most frequent localizations were obturator fossa and external iliac artery. Lymph node metastases were identified in 10 patients and in 9 of them at least one positive SLN was detected at ultrastaging. Sensitivity was 91% to detect node-positive disease and negative predictive value 95.8%.

**Conclusions** To our knowledge, this is the first experience of SLN mapping using ICG in Chile. The sensitivity and negative predictive value of our study, allows us to analyze the option of performing less aggressive procedures in endometrial cancer staging.