of the gastric body, peritoneal implants, and abdominopelvic lymph node enlargement. Biopsy of right inguinal lymph node and stomach biopsy returned positive for metastatic melanoma. The patient is currently being treated with immunotherapy.

Conclusions The cutaneous melanoma dissemination to the gynecological tract is rare. The prognosis depends on the initial state and in advanced stages the prognosis declines, mainly due to the high rate of metastases, which are mostly lymphatic. Our case report demonstrates a diagnosis of ovarian malignant melanoma which simulated primary ovarian cancer. The differential diagnoses are sex cord-stromal tumors and germ cell tumors.

IGCS19-0193

326 CLINICAL OUTCOMES ASSOCIATED WITH EZH2 EXPRESSION IN HIGH-GRADE OVARIAN SEROUS CARCINOMA

¹O Saglam*, ²S Vyas, ²B Reid, ²J Permeth, ²T Sellers. ¹Moffitt Cancer Center, Pathology, Tampa, USA; ²Moffitt Cancer Center, Epidemiology, Tampa, USA

10.1136/ijgc-2019-IGCS.326

Objectives Enhancer of Zeste homologue 2 (EZH2), a primary methyltransferase, is over-expressed in cisplatin-resistant ovarian cancer cell lines. We used immunohistochemistry to study the association between EZH2 expression and clinical outcomes in women with high-grade serous ovarian carcinoma (HGSOC).

Methods Levels of EZH2 expression were evaluated in a tissue microarray that included 99 HGSOC cases and 14 non-neoplastic fallopian tube controls. EZH2 expression was quantified by digital microscopy and H-score (0 to 300) was calculated by multiplying percentage of positively stained cells with nuclear intensity. Results were correlated with clinicopathologic parameters. Treatment response was considered complete when patients demonstrated a disappearance of all measurable disease or normalization of CA-125 level for 4 weeks.

Results Most cases (N=73) had a complete response to chemotherapy. EZH2 expression was upregulated in neoplastic tissue compared to normal controls ($P<0.0001$) and, among tumors, was upregulated in cases with suboptimal debulking ($P=0.03$). EZH2 expression was not associated with stage of disease ($P=0.95$) or response to chemotherapy ($P=0.14$). However, out of 4 cases that displayed high-expression (>90th percentile) of EZH2 in all cores, 3 were incomplete responders ($P=0.04$). Median overall survival (OS) for patients was 46 months and did not vary by average EZH2 expression ($P=0.11$); however, high-expressing patients had borderline survival benefit in multivariate analysis ($p=0.06$).

Conclusions EZH2 expression does not appear to be predictive of chemotherapy response or overall survival in HGSOC. Whether outliers with high expression of EZH2 are at increased risk for incomplete response yet have potentially better OS is worth further exploration.

IGCS19-0289

327 SERUM VITAMIN D DEFICIENCY AND RISK OF EPITHELIAL OVARIAN CANCER IN LAGOS

¹E Sajo*, ²K Okunade, ³G Olorunfemi, ⁴K Rabi, ²R Anorlu. ¹Lagos University Teaching Hospital, Obstetrics and Gynecology, Lagos, Nigeria; ²University of Lagos- college of Medicine, Obstetrics and Gynecology, Lagos, Nigeria; ³University of Witwatersrand, Division of Epidemiology and Biostatistics, Johannesburg, South Africa; ⁴Lagos State University College of Medicine, Obstetrics and Gynecology, Lagos, Nigeria

10.1136/ijgc-2019-IGCS.327

Objectives Ovarian cancer is the second most common female genital cancer in Nigeria. This study aimed to determine the association between serum vitamin D level and risk of ovarian cancer in women in Lagos, Nigeria.

Methods We conducted a cross-sectional study from the 1st August 2016 to 31st May 2017. Demographic characteristics including type of clothing, average hours spent outdoors and skin complexion of 35 women with primary epithelial ovarian cancer and 35 apparently healthy women were obtained using questionnaires. Venous blood was taken from each participant to determine serum 25-hydroxyvitamin D [25(OH)D] level using vitamin D ELISA kit. Mann-Whitney U and Chi square tests were used to compare the median 25(OH)D levels among the two groups. Binary logistic regression analysis were conducted to evaluate the relationship between vitamin D levels and the risk of ovarian cancer.

Results The mean age of the participants was 50.6(± 11.1) years. The incidence of vitamin D deficiency ($\leq 20\text{ng/ml}$) among all the participants was high (62.9%) but the median vitamin D level in the ovarian cancer patients was lower as compared to the healthy women (13.5ng/ml, 95%CI: 9.2 – 21.2 vs 20.0ng/ml, 95% CI: 13 - 37.2, $p\text{-value} = 0.0061$ respectively). Vitamin D deficiency was associated with a four-fold risk of developing epithelial ovarian cancer ($p\text{-value} = 0.049$).

Conclusions This study revealed that low circulating 25(OH)D levels may be associated with the risk of epithelial ovarian cancer. We recommended a large prospective longitudinal study to evaluate the association between serum vitamin D levels and epithelial ovarian cancers in women in Nigeria.

IGCS19-0033

328 FIRST-TO-SECOND PROGRESSION-FREE SURVIVAL RATIO AS A PREDICTOR FOR OVERALL SURVIVAL IN OVARIAN CANCER

L Salman*, E Gandelsman, A Romano, G Sabah, A Jakobson-Setton, A Borovich, E Yeoshoua, R Eitan. Rabin Medical Center, Gynecologic Oncology Division- Helen Schneider Hospital for Women, Petach-Tikva, Israel

10.1136/ijgc-2019-IGCS.328

Objectives We aimed to evaluate the impact of first-to-second progression free survival (PFS1/PFS2) ratio on overall survival (OS) in patients with ovarian cancer.

Methods A retrospective cohort study of all patients with ovarian carcinoma treated in one university-affiliated medical

Abstract 328 Figure 1 Kaplan-Meier survival analysis

center (2000–7/2017). We included patients who had at-least a second recurrence. We included patients who were initially platinum sensitive, therefore patients with first progression-free survival (PFS) less than 12 months were excluded. Study groups included patients with PFS1/PFS2 <1.0 and patients with PFS1/PFS2 ≥1.0. Demographics and treatment outcomes were compared between groups. The primary outcome was OS. In addition, we assessed the linear correlation between first and second PFS.

P value <0.05 was considered significant.

Results Overall, 65 patients met inclusion criteria. In this cohort, the mean of first PFS was 64.6 ± 54.3 months, and the mean for the second PFS was 20.8 ± 32.4 . Overall, 13 (20%) had PFS1/PFS2 <1.0 and 52 (80%) had PFS1/PFS2 ≥1.0. Patients in the PFS1/PFS2 <1.0 group were younger, although not reaching statistical significance (median age 48 vs. 59 years, $p=0.05$). There were no significant difference in stage of disease or histology. There were no difference in rates of neoadjuvant chemotherapy between groups (15.4% vs 34.6%, $p=0.31$). In a Kaplan-Meier analysis, there were no difference between groups in OS (figure 1). Using Pearson's Correlation coefficient, longer first PFS was associated with longer second PFS ($r=0.3$).

Conclusions In patients with ovarian cancer, longer first PFS seems to be associated with longer second PFS. However, first-to-second PFS ratio does not predict OS.

IGCS19-0753

329

HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (HIPEC) IN OVARIAN CANCER

¹M Salvai*, ¹RM Riege, ¹J Costa, ²G Santillan, ¹M Rosso. ¹Grupo Gamma, Gynecology, Rosario, Argentina; ²Instituto de Ginecología, Gynecology, Rosario, Argentina

10.1136/ijgc-2019-IGCS.329

Objectives To evaluate the disease-free survival rate in patients with ovarian cancer treated with hyperthermic intraperitoneal chemotherapy (HIPEC) and to analyze the complications related to the procedure.

Methods Retrospective, longitudinal observational study of patients diagnosed with ovarian cancer, who underwent cytoreduction surgery and intraoperative hyperthermic

chemotherapy between January 1989 and January 2019, at the ““Instituto de Ginecología”” and ““Grupo Gamma”” of Rosario, Santa Fe, Argentina.

Results Of the total number of patients included (n: 43), 67.4% were alive without evidence of disease and 32.6% died because of their disease. The five-year disease-free survival was 68.5%. The prevalence of complications was 13.95% and they included grade 3–4 complications according to the toxicity scale. No deaths related to the technique were reported.

Conclusions Hyperthermic intraperitoneal chemotherapy is an efficient procedure. There was an apparent improvement in progression-free survival and overall survival with a low prevalence of complications.

IGCS19-0439

330

TOLERABILITY OF BEVACIZUMAB IN ELDERLY OVARIAN CANCER PATIENTS (TURBO STUDY): A CASE-CONTROL STUDY OF A REAL-LIFE EXPERIENCE

¹G Amadio, ¹C Marchetti, ²ER Villani, ²D Fusco, ³F Stollaghi, ¹C Bottoni, ¹M Distefano, ²G Colloca, ¹A Fagotti, ¹G Scambia*. ¹Division of Gynecologic Oncology- Fondazione Policlinico Universitario A. Gemelli- IRCCS, Department Of Woman And Child Health And Public Health, Roma, Italy; ²Fondazione Policlinico Universitario A. Gemelli- IRCCS, Division of Geriatrics, Roma, Italy; ³Fondazione Policlinico Universitario A. Gemelli- IRCCS, Department Of Woman And Child Health And Public Health, Roma, Italy

10.1136/ijgc-2019-IGCS.330

Objectives Bevacizumab maintenance following platinum-based chemotherapy is an effective treatment for epithelial ovarian cancer (EOC), both in primary and recurrent disease. Our aim was to identify criteria to select elderly patients who can safely benefit from bevacizumab addition.

Methods This is a case-control study on patients with primary or recurrent EOC who received platinum-based chemotherapy plus bevacizumab, between January 2015 - December 2016. Patient characteristics, treatment details and adverse events were reviewed and analyzed in two setting: younger (<65 years, group 1) and elderly (>65 years, group 2). A binary logistic model was applied to correlate clinical variables and severe (grade ≥3) toxicity risk.

Results Overall, 283 patients with EOC were included, with 72 (25.4%) older patients compared with 211 (74.6%) younger women. Bevacizumab had been administered to 234 patients (82.7%) as first-line treatment and in 49 (17.3%) with recurrent disease. At diagnosis, elderly patients presented with at least one comorbidity and were taking at least 1 medication in 84.7% and 80.6% of the cases respectively, compared with correspondingly 47.4% and 37.4% in group 1 ($p<0.001$). Nonetheless, the occurrence of serous (G3/G4) adverse events did not increase among the older group. Creatinine serum levels > 1.1 g/dl, estimated glomerular filtration rate (eGFR) < 60 ml/min, ≥ 3 comorbidities were independently associated with a higher severe toxicity.

Conclusions Elderly patients with EOC can safely be treated with bevacizumab; factors other than age, as higher creatinine serum levels, eGFR and number of comorbidities should be considered to better estimate bevacizumab-related toxicity risk.