

was used as newly diagnosed maintenance treatment in 25 (58.1%) patients, as treatment for  $\geq 3$  line recurrence treatment in 14 (32.6%) patients, and as platinum-sensitive recurrent maintenance treatment in 4 (9.3%) patients. Overall, 28 (65.1%) patients experienced  $\geq 1$  grade hematologic AEs, which included leukopenia (37.2%), anemia (34.9%) and thrombocytopenia (39.5%). Only 10 (23.3%) patients had grade 3/4 AEs including leukopenia (9.3%), anemia (7.0%) and thrombocytopenia (11.6%). Until last follow up, the median time for the occurrence of leukopenia, anemia and thrombocytopenia were 30 (range: 7, 162), 34 (range: 7, 108) and 20 (range: 13, 180) days, respectively. No deaths were reported. Of those patients who experienced AEs during treatment, the dose was reduced in 4 (14.3%) patients, and treatment was interrupted in 9 (32.1%) patients. Additional recombinant human granulocyte colony stimulating factor (n=5, 17.9%), erythrocyte (n=2, 7.1%) and recombinant human thrombopoietin (n=5, 17.9%) were provided for treating the AEs. After intervention, 8 (18.6%) patients restart the treatment and only 1 (2.3%) patient discontinued the treatment.

**Conclusion** The incidence of hematologic AEs in real-world experience was lower than reported by niraparib 300 mg/day in ENGOT-OV16/NOVA trial. In addition to maintenance treatment in the first line, the patients in platinum-sensitive recurrence treatment and later line treatment might benefit from ISD niraparib.

**Disclosures** The authors declare that they have no competing interests.

419

#### SIGNALING PATHWAYS RELATED WITH ITGBL1 IN OVARIAN CANCER CELLS

<sup>1</sup>Alexander J Cortez, <sup>2</sup>Katarzyna A Kujawa, <sup>3</sup>Agata M Wilk, <sup>3</sup>Marcela K Krzemppek, <sup>2</sup>Joanna P Syrkis, <sup>2</sup>Magdalena Olbryt, <sup>2</sup>Katarzyna M Lisowska. <sup>1</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Department of Biostatistics and Bioinformatics, Center for Translational Research and Molecular Biology of Cancer; <sup>2</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Center for Translational Research and Molecular Biology of Cancer; <sup>3</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Department of Biostatistics and Bioinformatics

10.1136/ijgc-2020-ESGO.135

**Introduction/Background** Integrin beta-like 1 (ITGBL1) is a poorly characterized protein comprised of ten EGF-like repeats. Our previous studies suggested that higher ITGBL1 mRNA expression level in the tumor is related with shorter survival of ovarian cancer patients.<sup>1, 2</sup> Subsequent functional in vitro studies revealed that ITGBL1 overexpression in ovarian cancer cells resulted in the altered adhesion, migration and invasiveness, while it had no effect on proliferation rate and the cell cycle. ITGBL1-overexpressing cells were significantly more resistant to cisplatin and paclitaxel,<sup>3</sup> major drugs used in OC treatment.<sup>4</sup> In the current study we analyzed gene expression profiles of ITGBL1-overexpressing and control ovarian cancer cells and investigated ITGBL1 influence on ovarian cancer cell signaling pathways.

**Methodology** ITGBL1 coding sequence was PCR-amplified from cDNA and cloned into pLNCX2 vector. Retroviral system was used to obtain two ovarian cancer cell lines: OAW42/ITGBL1(+) and SKOV3/ITGBL1(+) with overexpression of ITGBL1. Control cell lines were obtained by transduction with an empty vector. RNA was isolated from wild type,

ITGBL1-overexpressing and control cells. DNA microarray experiment was performed using GeneChip™ Human Transcriptome Array 2.0 (Affymetrix, Santa Clara, CA, USA) according to the manufacturer's instructions. Bioinformatical analysis was carried out in R environment (version 3.5.3) with Bioconductor packages.

**Results** Using Principal Component Analysis, an unsupervised method of data analysis, we selected gene sets related to major sources of variability in our dataset. Then, by performing Gene Set Enrichment Analysis we found 76 and 146 significantly affected cellular signaling pathways (in OAW42 and SKOV3 cell line, respectively). Majority of them (22 and 44, respectively) were related to extracellular matrix structure and function, integrin signaling, focal adhesion, cell junction, cellular motility, ERBB2 and ERBB4 signaling, etc.

**Conclusion** Global gene expression analysis revealed that signaling pathways affected by ITGBL1 overexpression were mostly those related to extracellular matrix organization and function, integrin signaling, focal adhesion, cellular communication and motility. These results are concordant with functional changes observed in ITGBL1-overexpressing cells, like altered adhesiveness, enhanced motility and invasiveness. Overall, our results indicate that higher expression of ITGBL1 in ovarian cancer cells is associated with features that may worsen clinical course of the disease.

A.J.Cortez was co-financed by the EU through the European Social Fund (grant-POWR.03.02.00-00-I029).

#### REFERENCES

1. Lisowska, et al. (2014), DOI: 10.3389/fonc.2014.00006
2. Lisowska, et al. (2016), DOI: 10.1007/s00432-016-2147-y
3. Cortez, et al. (2020), DOI: 10.3390/cancers12092676
4. Cortez, et al. (2020), DOI: 10.1007/s00280-017-3501-8

**Disclosures** Authors have nothing to disclose.

423

#### FIBRONECTIN AND PERIOSTIN AS PROGNOSTIC MARKERS IN OVARIAN CANCER

<sup>1</sup>Katarzyna A Kujawa, <sup>2</sup>Ewa Zembala-Nożyńska, <sup>3</sup>Alexander J Cortez, <sup>4</sup>Jolanta Kupryjańczyk, <sup>5</sup>Katarzyna M Lisowska. <sup>1</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Center for Translational Research and Molecular Biology of Cancer; <sup>2</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Tumor Pathology Department; <sup>3</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Department of Biostatistics and Bioinformatics, Center for Translational Research and Molecular Biology of Cancer; <sup>4</sup>Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology; Tumor Pathology Department; <sup>5</sup>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice Branch; Center for Translational Research and Molecular Biology of Cancer

10.1136/ijgc-2020-ESGO.136

**Introduction/Background** In our previous microarray study we identified a 96-gene prognostic signature associated with the shorter overall survival (OS) of ovarian cancer patients.<sup>1</sup> Two genes from this signature, both coding for extracellular matrix proteins, were objects of the present study: FN1 and POSTN. We analyzed, by immunostaining, expression of encoded proteins in the independent set of ovarian cancer samples and evaluated its correlation with clinical, pathological, and molecular features.

**Methodology** Ovarian cancer samples from 108 patients were analyzed by immunohistochemistry using rabbit anti-human fibronectin polyclonal antibody (1:3000 dilution, A0245, Dako, Glostrup, USA) and rabbit anti-human periostin

polyclonal antibody (1:200 dilution, ab14041, Abcam, Cambridge, UK). Correlation with survival was evaluated with Cox proportional-hazards model and Kaplan–Meier estimator with log-rank test. Two-sided p-values <0.05 were considered statistically significant. Analyses were carried out using Statistica 13.1 (TIBCO Software Inc., Palo Alto, CA, USA).

**Results** We observed that the higher expression of FN1 and POSTN was associated with shorter OS (log-rank: p-value 0.003 and 0.04 respectively). Next, we analyzed performance of the combined FN1&POSTN score calculated as a sum of individual FN1 and POSTN scores. We hypothesized that two-protein score would be more robust than evaluation of single proteins. Indeed, Cox regression demonstrated that FN1&POSTN score was an independent prognostic factor for OS (HR = 2.16; 95% CI: 1.02–4.60; p-value 0.044). However, we observed two outliers: out of the entire cohort one patient with a score 2 (indicating favorable prognosis) had the shortest OS and one patient with score 6 (indicating worst prognosis) had the second longest OS (131.17 month). These observations indicate that the FN1&POSTN score behaves similarly to classical prognostic factors: some patients having good prognosis, progress quickly and die early, while some patients with bad prognosis live unexpectedly long. In addition, our study showed that expression of fibronectin and periostin was associated with the source of OC sample: metastases showed higher expression of these proteins than primary tumors (chi2 test, p-value 0.024 and p-value 0.032). Elevated expression of fibronectin and periostin was also more common in fallopian cancers than in ovarian cancers.

**Conclusion** In summary, we found that the joint FN1&POSTN score is an independent prognostic factor for OS in ovarian cancer patients.<sup>2</sup> Moreover, our results support the role of the cancer microenvironment in tumor progression and prognosis and add to the concept that some ovarian cancers originate from fallopian tube epithelium.

**Disclosures** Authors have nothing to disclose.

## REFERENCES

1. Lisowska KM, et al. (2016), DOI:10.1007/s00432-016-2147-y
2. Kujawa KA, et al.(2019), DOI:10.3390/cells9010149

425

### HIPEC IN OVARIAN CANCER: THE FIRST CASE-CONTROL STUDY IN MEXICAN PATIENTS

<sup>1</sup>Juan Manuel Medina-Castro, <sup>2</sup>Arelly Gonzalez, <sup>3</sup>Flavia Morales, <sup>4</sup>Maria Antonia Morales. <sup>1</sup>Grupo Oncológico de Toluca; Martín Alonso Pinzón 135; <sup>2</sup>Instituto Nacional de Cancerología; National Cancer Institute Mexico; Gynecology Oncology; <sup>3</sup>National Cancer Institute Mexico; Medical Oncology; <sup>4</sup>State National Cancer Center; Radiology

10.1136/ijgc-2020-ESGO.137

**Introduction/Background** Describe the global survival of ovarian cancer patients treated with HIPEC procedure.

Compare overall survival (OS) and progression-free survival (PFS) among ovarian cancer patients who underwent cytoreduction and HIPEC procedure vs patients treated with systemic chemotherapy.

**Methodology** Cases: patients treated with cytoreduction and HIPEC (N=46)

Controls: patients treated with systemic chemotherapy (N=92)

Follow-up: 2007–2017

PFS was calculated from the beginning of the treatment to the date when progression, death or the last visit was

documented. OS was calculated from the beginning of the treatment to the death or to the last known follow-up.

Demographic, clinical, surgical and outcomes were collected from the clinical records.

**Results** The estimated median OS in the HIPEC group was 99.1 months vs 38.9 months in the control group (p=0.0002)

PFS was 32.8 months in the HIPEC group and 17.8 months in the control group (p=0.05).

**Conclusion** Platinum resistance plays an important role in patient survival, with a difference of 40 months between those who are resistant and those who are not at the moment of HIPEC.

This study suggests that CRS and HIPEC in patients with recurrent

Complete cytoreduction (CCR0) was performed in 33 patients (71.7%) and optimal (with residual of less than 0.5 cm) in 13 patients (28.3%).

Severe complications occurred in 11 patients (37.93%).

ovarian cancer may be beneficial compared to conventional secondary debulking or systemic therapy as treatment alone.

The measurement of OS from initial diagnosis is substantially modified to more than 104 months, a figure not seen before in advanced or recurrent disease of this neoplasm

**Disclosures** The effort of the surgical oncology community to find the ideal patient and the ideal moment for this procedure should be directed not only to treatment, but to a sequence that offers patients a possibility of cure

431

### HISTOPATHOLOGICAL RESULTS AFTER RISK-REDUCING BILATERAL SALPINGO-OOPHORECTOMY IN BRCA1/2 MUTATION CARRIERS: SINGLE CENTER EXPERIENCE

<sup>1</sup>Sarah Ehmann, <sup>1</sup>Jan Philipp Ramspott, <sup>1</sup>Andreas du Bois, <sup>1</sup>Philipp Harter, <sup>1</sup>Stephanie Schneider, <sup>2</sup>Thais Baert, <sup>1</sup>Alexander Traut, <sup>3</sup>Sebastian Heikau, <sup>1</sup>Nina Pauly, <sup>4</sup>Beyhan Ataseven. <sup>1</sup>Ev. Kliniken Essen-Mitte; Department of Gynecology and Gynecologic Oncology; <sup>2</sup>Ev. Kliniken Essen-Mitte, Department of Gynecology and Gynecologic Oncology, Essen, Germany; <sup>3</sup>Ku Leuven, Department of Oncology, Laboratory of Tumor Immunology and Immunotherapy, Immunovar Research Group, Leuven; <sup>4</sup>Ev. Kliniken Essen-Mitte; Department of Pathology; <sup>4</sup>Ev. Kliniken Essen-Mitte, Department of Gynecology and Gynecologic Oncology, Essen, Germany; University Hospital, LMU Munich, Department of Obstetrics and Gynecology, Munich

10.1136/ijgc-2020-ESGO.138

**Introduction/Background** Women with BRCA1 and 2 mutation are at increased risk for developing ovarian and breast cancer. Risk-reducing salpingo-oophorectomy (RRSO) can be offered to these women to minimize their risk. The pathologic sectioning and extensively examining the fimbriated end (SEE-FIM)-protocol is applied by the pathologist to detect premalignant lesions and early stage cancer. The rate of occult serous tubal intraepithelial carcinoma (STIC) lesions and ovarian cancer in this RRSO-population ranges between 0.6–10.0%. The prevalence of pathogenic lesion in RRSO is clinically relevant.

**Methodology** All consecutive patients with a pathogenic mutation (BRCA1/2, RAD51C, Lynch gene mutation, PALB2, BRIP1) who underwent RRSO between 11/2011 and 05/2020 in our Department of Gynecologic Oncology at Kliniken-Essen-Mitte were assessed from our prospectively managed database. All specimens were analysed according to the SEE-FIM-protocol.

**Results** In total, 241 women underwent RRSO of whom 216 were included in the final analysis. Median age was 48 years (range 22–79). 134 (62.0%) women had breast cancer in their