Conclusion Tumor characteristics of long-term survivors of advanced stage ovarian carcinoma are unfavorable in some cases. Currently we work on characterization of genetic and medical specifics of these patients in order to understand the reasons for their resilience.

Introduction/Background The objective of this study was to assess the value of preoperative PET/CT scan, combined with clinical variables, in predicting complete resection in highly pre-selected patients operated in centers with high rate of complete resection.

Methodology This multicentric, observational, retrospective study evaluated ovarian cancer patients who underwent primary cytoreduction surgery for advanced ovarian cancer in two Spanish centers between January 2017 and January 2022. All PET/CT were reviewed, and a modified PCI score was calculated. Clinical variables and preoperative findings in the PET/CT were analyzed and a multivariate model was built. A predictive value score based on the OR of the variables was constructed.

Results 45 patients underwent upfront primary cytoreductive surgery. The complete resection rate was 80% (36 patients). On multivariate analysis, 2 clinical variables and 2 preoperative PET/CT findings were associated with no-complete resection surgery: Presence of extra-abdominal lymph node, modified PCI value of 6 or more, age 58 years and ASA score 3. The predictive score value of each variable was 11, 2, 2 and 1, respectively. For this multivariate model predictive of non-complete cytoreduction, the AUC was 0.881. A predictive value of 5 or more was the most predictive cutoff for non-complete cytoreduction. Complete resection rate was 91.7% in patients with a score of 4 or less and 33.3% in patients with 5 or more points in the predictive value score.

Conclusion In highly pre-selected cohorts of patients, a predictive score value can be considered as a cutoff for sending patients to neoadjuvant chemotherapy.

Introduction/Background The primary objective of this study was to analyze the impact of comorbidities, postoperative complications and center volume on overall survival in a real-life cohort of ovarian cancer patients in France.

Methodology All French women aged 18 years or over, with an ovarian cancer newly diagnosed between January 2013 and December 2019, registered in the general health insurance coverage plan were included in the cohort. Ovarian cancer treatments, comorbidities, postoperative complications and death were extracted from hospital discharge reports. The characteristics of the centers were also collected.

Results We included 29,879 patients with ovarian cancer in the cohort. The median age was 66 [57–74] years, and 24,783 (82.9%) presented an advanced stage at diagnosis (FIGO III-IV). A total of 16,048 (53.7%) patients had at least one comorbidity at the time of diagnosis, with mainly hypertension (n=6,800) and obesity (n=2,505). Patients received primary surgery, interval surgery, or chemotherapy alone in 31.5%, 30.4%, and 38.1% of cases, respectively. A total of 3,031 (16.1%) patients presented a postoperative complication Clavien-Dindo III or more within 90 days of cytoreduction surgery, mainly digestive (60.4%). For advanced stage, the median overall survival was 47 [45.9–48] months. The number of comorbidities, the occurrence of a complication and low center volume had a significant negative impact on the overall survival.

Conclusion Real-life data give the opportunity to study the key health indicators in ovarian cancer. In order to improve quality of care, a personalization of the care pathway for patients with comorbidities and at risk of postoperative complications must be carried out.

Introduction/Background Poly ADP-ribose polymerase (PARP) inhibitor maintenance has helped shift the clinical landscape for patients with newly diagnosed advanced ovarian cancer over recent years. With an influx of clinical data and approvals within Europe it is paramount that physicians are aware of practically how to incorporate these treatment options into their clinical protocol to benefit eligible patients.

Methodology Oncologists and gynecologists participated in an online, interactive clinical case-based educational activity providing clinicians with practical guidance on the optimal implementation of new PARP inhibitor maintenance regimens in clinical practice. Educational effect was assessed using a repeated-pair design with pre-/post-assessment. 3 multiple choice questions assessed competence, and 1 question rated on a Likert-type scale assessed confidence. Data were collected from 20/05/21 to 04/11/22.

Results The responses of 97 oncologists and 286 gynecologists, who answered all questions as part of the pre- and
post-activity assessment during the study period were included in the analysis. Overall, 35% and 59% of oncologists and gynecologists, respectively, improved their competence across the activity. Specific improvements included: 20% of oncologists and 27% of gynecologists improving their competence related to selection of PARP inhibitor maintenance regimens. Statistically significant improvements (P<.001) for both oncologists and gynecologists in their competence related to selection of frontline treatment regimens. As a result of the education, 30% of the oncologists and 43% of gynecologists had a measurable increase in confidence in their ability to select therapy for patients with newly diagnosed ovarian cancer (P<.001 for both specialties), which led to an average positive confidence shift of 47% for oncologists and 63% for gynecologists.

Conclusion This study demonstrated the effectiveness of an online, interactive, case-based educational activity on improving competence and confidence of oncologists and gynecologists in practically incorporating PARP inhibitor maintenance regimens into the treatment paradigm for patients with newly diagnosed advanced ovarian cancer.

Introduction/Background Previously, we identified a set of genes related to differential survival of patients with high-grade serous ovarian cancer (OC). One of these was Microfilbrillar associated protein 5 (MFAP5). MFAP5 is poorly characterized, although some data suggest that it can promote cancer cell motility and invasiveness, as well as angiogenesis in OC. Our aim was to validate MFAP5 as a prognostic biomarker.

Methodology For survival analysis we used online tools: Kaplan-Meier Plotter and Microarray Gene Expression Database of OC Subtype (CSIOVDB). MFAP5 co-expressed genes were identified using BioPortal; protein interaction networks were assessed by STRING. Immunohistochemical analysis was performed on 108 formalin-fixed paraffin-embedded OC samples and on tissue arrays (US Biomax), using anti-MFAP5 antibody (15727-1-AP, Proteintech); results were analyzed using Statistica-v.13.1 (StatSoft).

Results Kaplan-Meier Plotter and CSIOVDB analysis confirmed that MFAP5 mRNA level is significantly related to survival of OC patients. Also, patients with FIGO I&II had significantly lower MFAP5 expression than patients with advanced stage (FIGO III&IV) cancer; patients with well-differentiated (G1) tumors had lower MFAP5 expression than patients with G2&G3 tumors. Subsequently, we evaluated expression of MFAP5 protein by immunohistochemistry. Patients with highest MFAP5 level had shorter survival, however not statistically significant. MFAP5 expression was also related to desmoplastic reaction. There was no correlation neither with stage, grade, nor histological type. MFAP5 is co-expressed with multiple genes coding for extracellular-matrix proteins (eBioPortal); STRING algorithm showed strong experimental evidence for MFAP5 interactions with ECM proteins, primarily with LOX family members and FBNI. MFAP5 was shown to be connected to the Notch signaling pathway.

Conclusion MFAP5 seem to be involved in the important cellular processes and signaling pathways engaged in cancer progression and its mRNA level is related to worse prognosis. However, MFAP5 is not suitable as prognostic marker for simple evaluation with IHC.

REFERENCE

2022-RA-1114-ESGO BRCA I, BRCA II MUTATION IN HIGH GRADE OVARIAN CANCERS, FALLOPIAN TUBE CANCER, PRIMARY PERITONEAL CARCINOMA

1Hanna Trukhan, 2Valeria Skachkova, 3Yuliya Lufiarova Lufiarova, 4Sergey Mavrichev, 5Elena Dahanamava, 6Volha Ramanovich. 1Oncological Department, Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus; 2Oncogynecologic Department, NN Alexandrov National Cancer Centre of Belarus, Minsk district, Belarus; 3Genetics Laboratory, National Molecular Genetics Laboratory of Cancer Research, p. Lesnoy, Belarus; 4Genetics Laboratory, National Molecular Genetics Laboratory of Cancer Research, p. Lesnoy, Belarus; 5NN Alexandrov National Cancer Centre of Belarus, p.Lesnoy, Belarus; 6Oncogynecologic Department, NN Alexandrov National Cancer Centre of Belarus, p.Lesnoy, Belarus; 7Cancer Control Department, NN Alexandrov National Cancer Centre of Belarus, p.Lesnoy, Belarus

Introduction/Background BRCA1 and BRCA2 carriers have an increased risk of developing ovarian cancer (OC), fallopian tube carcinoma (FTC), and primary peritoneal cancer (PPC). Germline mutations in BRCA1/BRCA2 are responsible for the development of ovarian cancer in at least 10% of cases. The aim of study was to investigate the BRCA status of high-grade serous OC, FTC, PPC.

Methodology Patients with OC, FTC and PPC with high grade serous were recruited. Data and blood of patients, who treated on oncogynecologic department N.N. Alexandrov National Cancer Centre of Belarus between January 2022 and May 2022 were collected. Germline mutations in BRCA1/BRCA2 were tested and analyzed by polymerase chain reaction (PCR).

Results A total of 75 patients were analyzed: 65 patients with OC, 9 with FTC, 1 with PPC. BRCA negative status was observed in 43 patients, BRCA positive in 32 (43%). 31 patients had BRCA1 mutation and 1 patient had BRCA2 mutation. The most frequently BRCA 1 mutations were: 5382insC (20 exon) – n=15, slightly less (n=9) 4153delA (11 exon), 185delAG (2 exon) – n=2, 300T>G (5 exon) – n=5. One patient had BRCA 2 mutation (6174 delT). 75% of patients had a burdened family history and first-, second- and third-degree relatives with oncological diseases, mainly breast cancer, ovarian cancer, pancreatic cancer, prostate cancer.

Conclusion The high percentage BRCA 1, 2 mutations (43%) in patients with ovarian cancer, fallopian tube carcinoma, primary peritoneal carcinoma with high-grade serous carcinoma requires further research. Genetic counseling is also especially necessary not only for patients, but also for their relatives in order to identify hereditary mutations and carry out preventive measures.