Methodology The case records of patients treated with pegylated liposomal doxorubicin (PLD), weekly paclitaxel (WP) and weekly paclitaxel/2 weekly bevacizumab (WP/B) were reviewed. All patients had progressed within 6 months of prior platinum therapy. Response to chemotherapy was defined as Ca125 reduction from the baseline of more than 50%, clinical or radiological response.

Results A total of 103 patients were identified (69 had PLD, 26 had WP, and 8 had WP/B). The median age was 62 years (range: 38 - 78). Only 11 patients had previous PARP-inhibitors. The response rates for PLD, WP and WP/B were 21.7%, 34.6% and 37.5%, respectively. Median overall survival times were 54 weeks for PLD, 58.7 weeks for WP and 62.5 weeks for WP/B. For the PLD treated patients, the Ca125 response increased progressively with each cycle; at cycle 2 = 6%; cycle 3 = 11%; cycle 4 = 17%; cycle 5 = 20% (trend significant between cycles 2 and 4, P = 0.03).

Nineteen patients were rechallenged with a platinum regime after progression with 36.8% (7/19) of the patients responding. The median duration of response in this group was 5 months (range: 2 - 16). Responses were only seen in patients with at least 6 months platinum-free interval.

Conclusion Rechallenge with platinum after PLD or weekly paclitaxel/bevacizumab resulted in a good response rate in selected patients. Prolongation of the platinum-free interval may lead to a partial reversal of acquired drug resistance. The sole use of early Ca125 to assess response in patients on PLD treatment before cycle 4 may result in discontinuation of the treatment in potential responders.

Disclosures None

#857 CLINICAL OUTCOMES FOR PRESUMED HRP: HGOC WITH CCNE1 AMPLIFICATION, NF1 LOSS, OR RB1 LOSS

Introduction/Background High-grade ovarian cancer (HGOC) is a heterogeneous disease. Homologous recombination proficiency (HRP) is often presumed in cases with genetic alterations such as CCNE1 amplification (CCNE1amp), loss of NF1, or loss of RB1. This study aims to evaluate their clinical outcomes. In addition, where available we described the HRD status (BRCAm and genomic instability score, GIS).

Methodology We conducted a retrospective analysis of patients with HGOC whose tumor benefited from NGS at Gustave Roussy in order to identify those harboring CCNE1amp, NF1 loss or RB1 loss. Clinical features, treatment history, survival outcomes, and HRD status were described for each of these 3 subgroups.

Results We identified 64 tumors with either a CCNE1amp (N=39), NF1 loss (N=18), or RB1 loss (N=7). 46.8% were stage III, 95% received neoadjuvant chemotherapy and 84% underwent surgery. Median overall survival was 117.9 months for CCNE1amp, 109 months for NF1 loss, and 97.6 months for RB1 loss (p=0.702). Among CCNE1amp tumors, no BRCAm were identified, however for those with GIS results available, 25% (3/12) were classified as HRD-positive. Among BRCAm tumors, no GIS results were available, 25% (3/12) were classified as HRD-positive. Among tumors with NF1 loss, 30% (6/18) had a deleterious BRCA1 or BRCA2m; a similar proportion (2/7) of tumors with RB1 loss had BRCA2m.

Conclusion CCNE1amp, NF1 loss, and RB1 loss are genetic alterations that are presumed to be associated with an HRD-negative status in HGOC. However, while CCNE1amp and BRCA1/2m were mutually exclusive, this was not the case for NF1 or RB1 loss, where a surprisingly high proportion (30%) of HGOC with NF1/RB1 loss harbored co-existing BRCA1/2m. Additionally 25% of CCNE1amp HGOC were classified as HRD on the basis of a high GIS. It is necessary to investigate the relationship between the alterations in CCNE1, NF1 or RB1 and HRD status/PARP inhibitor benefit, and validate cut-offs to define biologically relevant copy number changes for CCNE1, NF1 and RB1 in HGOC.

Disclosures Nothing

#863 THE ROLE OF PEGYLATED LIPOSOMAL DOXORUBICIN AND WEEKLY PACLITAXEL WITH OR WITHOUT BEVACIZUMAB IN PROLONGING THE PLATINUM-FREE INTERVAL IN EPITHELIAL OVARIAN CANCER

Introduction/Background Platinum-free interval predicts subsequent platinum sensitivity and is a prognostic factor in ovarian cancer. The aim of the study is to investigate response to non-platinum-agents in platinum-resistant disease and the effect of prolonging the platinum-free interval.

Methodology The case records of patients treated with pegylated liposomal doxorubicin (PLD), weekly paclitaxel (WP) and weekly paclitaxel/2 weekly bevacizumab (WP/B) were reviewed. All patients had progressed within 6 months of prior platinum therapy. Response to chemotherapy was defined as Ca125 reduction from the baseline of more than 50%, clinical or radiological response.

Results A total of 103 patients were identified (69 had PLD, 26 had WP and 8 had WP/B). The median age was 62 years (range: 38 - 78). Only 11 patients had previous PARP-inhibitors. The response rates for PLD, WP and WP/B were 21.7%, 34.6% and 37.5%, respectively. Median overall survival times were 54 weeks for PLD, 58.7 weeks for WP and 62.5 weeks for WP/B. For the PLD treated patients, the Ca125 response increased progressively with each cycle; at cycle 2 = 6%; cycle 3 = 11%; cycle 4 = 17%; cycle 5 = 20% (trend significant between cycles 2 and 4, P = 0.03).

Nineteen patients were rechallenged with a platinum regime after progression with 36.8% (7/19) of the patients responding. The median duration of response in this group was 5 months (range: 2 - 16). Responses were only seen in patients with at least 6 months platinum-free interval.

Conclusion Rechallenge with platinum after PLD or weekly paclitaxel/bevacizumab resulted in a good response rate in selected patients. Prolongation of the platinum-free interval may lead to a partial reversal of acquired drug resistance. The sole use of early Ca125 to assess response in patients on PLD treatment before cycle 4 may result in discontinuation of the treatment in potential responders.

Disclosures None
sites. The validation was conducted by comparing the results of developed NGS cancer panel-based HRD test to that of ‘AmoyDx HRD test’.

**Results** In total, 155 patients were included in the development phase. High-grade serous was the most common histologic type (90.3%) and 28 patients (18.1%) had pathogenic BRCA1/2 mutations. Inaccurate estimation of HRD scores due to the rarity of targeted sequencing was calibrated using gap interpolation approach based on 1,558 pre-designed SNP sites. Nineteen specimens were used to validate the performance of a new algorithm. Of them, 26.3% had pathogenic BRCA1/2 mutations. Using the cut-off value of 42 for a new algorithm, the accuracy rate between the two tests was 78.9%.

**Conclusion** We successfully developed NGS cancer panel-based HRD test algorithms. The incorporation of the new algorithm on NGS cancer panels might be useful to identify HRD-POS and EOC cases.

**Disclosures** I have no conflict of interest to declare

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**#875**

**ASSOCIATION OF PRE-OPERATIVE SERUM LEVEL OF INTERFERON GAMMA WITH CLINICAL PARAMETERS OF OVARIAN CANCER PATIENTS**

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**Introduction/Background** Several clinical variables are proven as prognosis determinants in ovarian cancer, including age, BMI, grade, histopathological subtype, stage, and debulking surgery. The level of interferon-gamma (IFN-γ) as a protumor agent, is also considered in determining the prognosis of ovarian cancer. However, the study regarding the association between the level of IFN-γ in serum and clinical parameters among ovarian cancer patients is limited. We investigate the association between pre-operative IFN-γ levels in serum and various clinical parameters among ovarian cancer patients.

**Methodology** We collected serum from 15 patients with ovarian carcinoma who underwent primary surgery. The level of IFN-γ in serum was quantified using ELISA and its association with various clinical parameters was analyzed.

**Results** Higher average of IFN-γ level in serum found in patients with normal BMI (mean=0.82 pg/ml, p=0.951), age >60 years (mean=0.62 pg/ml, p=0.191), high-grade (mean=0.84 pg/ml, p=0.861), non-serous subtypes (mean=1.48, p=0.067), advanced stage (mean=0.87 pg/ml, p=0.611), and suboptimal surgery (mean=1.11 pg/ml, p=0.132) in comparison with overweight, age<60, low grade, serous, early stage and optimal surgery (0.78, 0.62, 0.74, 0.36, 0.55, 0.36 pg/ml), but there were no statistically significant differences.

**Conclusion** There are no significant association between IFN-γ levels in serum and some clinical parameters including age, BMI, grade, histopathological subtype, stage, and residual disease of ovarian carcinoma patients.

**Disclosures** I have no conflict of interest

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**#880**

**IMPACT OF ASCITES AND PERITONEAL METASTATIC LESIONS, MEASURED BY NEWLY DEVELOPED, DEEP LEARNING-BASED ALGORITHM, ON SURVIVAL OUTCOMES IN ADVANCED EPITHELIAL OVARIAN CANCER**

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**Introduction/Background** We developed an auto-segmentation algorithm using deep learning to identify peritoneal metastatic (PM) lesions in advanced epithelial ovarian cancer (aEOC). We investigated the impact of ascites and PM lesion volumes on survival outcomes in aEOC.

**Methodology** We measured ascites and PM lesion volumes in abdominopelvic cavity of 195 patients with aEOC using our algorithm and pre-treatment computed tomography (CT) images. Patients were divided into high- and low-volume groups based on the median value for each factor. Survival outcomes were compared between the groups.

**Results** Of the 195 patients, 127 (65.1%) had FIGO stage III and 68 (34.9%) had stage IV disease. The most common histologic subtype was high-grade serous carcinoma (78.5%). Primary cytoreductive surgery was performed in 69.2% of patients, with 56.4% achieving complete cytoreduction. The median volumes of ascites and PM lesions were 714.5 cm³ and 341.1 cm³, respectively.

There was no difference in progression-free survival (PFS) between the high- and low-volume ascites groups (P=0.338). However, the high-volume ascites group had worse overall survival (OS) compared to the low-volume group (5-year PFS rate, 68.7% vs. 46.1%, P=0.08). In multivariate analyses adjusting for histologic subtypes and residual tumor after surgery, high-volume ascites was an independent poor prognostic factor for OS (adjusted hazard ratio [aHR] 1.801; 95% confidence interval [CI] 1.472–2.282; P=0.011).

No differences in PFS (P=0.120) and OS (P=0.279) were observed between the high- and low-volume PM groups. However, in a subgroup analysis of patients who achieved complete cytoreduction (n=110), the high-volume PM group was an independent poor prognostic factor for OS (aHR 2.231; 95% CI 1.066–4.669; P=0.033) after adjusting for histology and neoadjuvant chemotherapy use.

**Conclusion** Our study demonstrates the successful measurement of ascites and PM lesion volumes using a deep learning-based auto-segmentation algorithm. Volumetric measurements of ascites and PM lesions could serve as novel prognostic factors for survival outcomes in aEOC patients.

**Disclosures** I have no conflict of interest to declare.