

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 accordance 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-positive EOC cases.

Disclosures I have no conflict of interest to declare

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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 pro-tumor 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 No conflict of interest

#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] 1.147–2.828; 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

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LOCO-REGIONAL TREATMENT OF OLIGOMETASTATIC RECURRENCE IN PATIENTS WITH EPITHELIAL OVARIAN CANCER: COMPARISON BETWEEN RADIOTHERAPY AND SURGERY

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Introduction/Background Systemic therapy is the standard treatment for recurrent epithelial ovarian cancer (EOC). However, in some cases of oligometastatic recurrence, loco-regional treatment can be a useful therapeutic alternative. The aim of this study is to analyze loco-regional surgical and radiotherapy treatment in terms of efficacy and complications in patients affected by oligometastatic progression of EOC. The secondary objective is to evaluate the predictive factors of treatment response.

Methodology All the patients with relapsed EOC who underwent surgical or radiotherapy treatment for curative purposes at the Mauriziano Hospital in Turin and the Cardinal Massaia Hospital in Asti between January 2011 and December 2021 were retrospectively analyzed. They were evaluated overall and for each type of treatment. overall survival (OS), progression-free survival (PFS), local control (L-PFS). Predictors of response to treatments were also investigated.

Results A total of 52 patients were evaluated, 39 undergoing surgical treatment and 13 undergoing radiotherapy treatment. The two groups were comparable for the main clinical characteristics, except for the platinum free index and the number of previous chemotherapy and surgical treatments, indicative of the fact that in our current clinical practice, radiotherapy is proposed as a method of second choice for the management of oligometastatic disease

Surgery was significantly superior to radiotherapy in terms of OS (41 vs. 19 $p=0.026$) and PFS (13 vs. 9 $p=0.006$) but not as regards L-PFS (18 vs. 14 $p=0.717$).

Residual disease after surgery and chemotherapy following locoregional treatment were not significant in terms of survival. the residual tumor after surgery was instead associated with a better L-PFS in the group of patients undergoing surgery.

Conclusion The results obtained show an advantage of surgical treatment compared to radiotherapy in terms of survival, however, the data of equality in terms of local disease control is especially interesting for those patients unfit for surgery.

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OLAPARIB DOSE REDUCTION IN PLATINUM-SENSITIVE OVARIAN CANCER RECURRENCE: REAL-WORLD DATA

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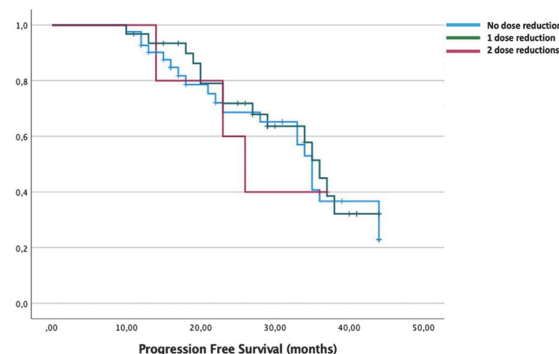
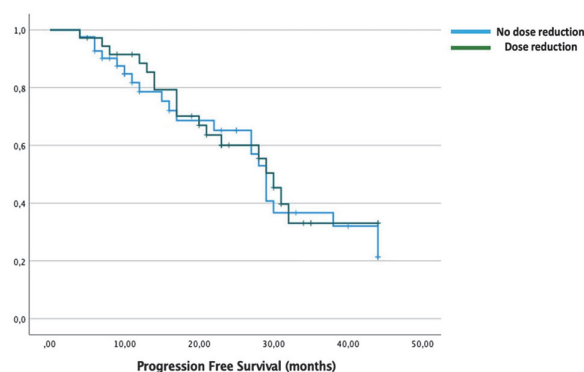
Introduction/Background The efficacy of PARP inhibitors as maintenance therapy in platinum-sensitive recurrent ovarian cancer (ROC) has been well established, but the impact of dose modification on survival outcomes needs to be clarified.

An analysis of the SOLO2 trial demonstrated that dose reduction does not impact survival outcomes, but real-world data is missing.

We explored the effect of Olaparib dose reduction on progression-free survival (PFS) in the recurrence setting.

Methodology This retrospective study included BRCA 1/2 mutated ROC patients treated with Olaparib between 2019 and 2022 after complete or partial response to platinum-based chemotherapy. All patients started with the recommended dose of 600 mg daily. Patients were divided into 3 groups based on the number of dose reductions: no reduction (group 1); 1 dose reduction level (group 2); 2 dose reduction levels (group 3). PFS was estimated for patients who had not recurred within the first 12 weeks.

Results Of 81 patients identified, 32 (39.5%) had at least one dose reduction, and 44 (54.3%) had no dose modification. Patients who started maintenance treatment within 40 days from the last cycle of chemotherapy have a slightly lower risk of dose reduction (15/42, 35.7%) compared with those starting after 40 days (22/39, 56.4%) ($p=0.062$). There was no significant difference in PFS for patients who required at least one dose reduction compared to those not reducing at all (29 vs 30 months; log-rank $p=0.74$). Similar results we found by analyzing median PFS according to dose reduction among the 3 groups (29 vs 30 vs 20 months in groups 1, 2 and 3, respectively, $p=0.89$).



Abstract #887 Figure 1

Conclusion Our analysis confirmed that almost half of the patients require Olaparib dose reduction without impacting survival expectations. These results can help physicians with patient counseling and management of adverse events, even in the first-line setting.

Disclosures None