

validated assays to assess HRD are *BRCA*-mutation (*BRCAMut*) analysis and genomic instability scores (GIS) designed to detect genomic ‘scars’ in tumor DNA. However, these tests require large samples and yield non-contributive (NA) in 15% of cases. Bevacizumab and PARPi are approved as maintenance therapy regardless HRD status and the optimal maintenance strategy in case of non-contributive HRD test is a major unmet medical need. We aim to report the clinical characteristics and behavior under chemotherapy of NA HGOC pts.

Methodology This is a retrospective analysis of all pts tested for GIS by myChoice HRD Plus assay (Myriad Genetic Laboratories). Pts included presented HGOC with advanced FIGO III/IV diseases and treated according to guidelines. GIS was performed on baseline pretreatment samples, preferably. Platinum-free interval (PFI) was calculated from the date of last platinum-based chemotherapy to the date of relapse.

Results 210 patients were recruited: 100 were classified HRD negative (HRD-, score <42), 81 HRD positive (HRD+, score ≥42) and 29 NA (14%). HRD+ cohort was significantly enriched with *BRCAMut* pts (21/81 = 27%) compared to HRD- and NA. In the NA cohort, median age was 64 years, 86% had a high-grade serous tumor and 10% presented germinal *BRCAMut*. With a median follow-up of 39 months, median PFI in the overall population was 19.8 months (95% CI 16.7–24.4). In the HRD+, HRD- and NA cohorts (excluding *BRCAMut*), median PFI were 34.0 (95%CI 16.7–64.4), 14.6 (95%CI 12.0–20.9) and 37.3 months (95%CI 21.0–NA) respectively (P=0.004).

Conclusion Our results suggest that patients with NA GIS results behave like HRD+ tumors harboring high platinum-sensitivity and therefore may benefit from PARPi maintenance. The reason for non-contributivity in the first place is unknown and may explain these observations.

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IS NEOADJUVANT CHEMOTHERAPY EFFECTIVE AS PREHABILITATION PROGRAM IN ADVANCED EPITHELIAL OVARIAN CANCER?

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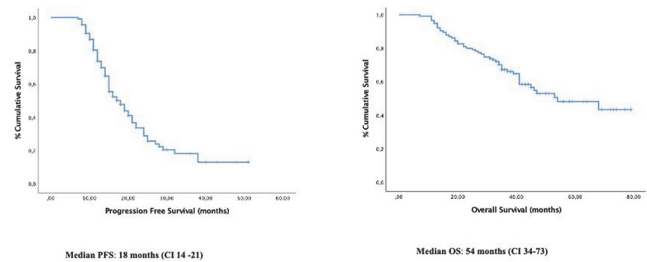
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Introduction/Background A consistent number of advanced ovarian cancer (AOC) patients present with poor performance status. We sought to determine whether neo-adjuvant chemotherapy (NACT) can modify pre-operative characteristics used to identify patients at high risk (HR) of peri-operative complications, as defined by the Mayo Clinic Algorithm

Methodology In this retrospective single center observational study, FIGO stage III-IV AOC patients undergoing NACT from 01/2016 to 12/2019 were collected and triaged as low risk (LR) and HR according to Mayo Clinic Algorithm. HR group included women with at least one of the following criteria: (i) Albumin <3.5 g/dL, (ii) age ≥80 years, (iii) age 75–79 with ECOG performance status >1, stage IV disease, or complex surgery required and (iv) ASA score ≥ 3. Pre-NACT and post-NACT characteristics were compared in the HR group.

Results 177 patients were included, 144 (81%) and 33 (19%) were classified as HR and LR respectively before NACT. A median number of 4 cycles (range 2–6) of carboplatinum-

paclitaxel NACT was administered in HR patients, with bevacizumab addition in 53% of cases. 115 out of 144 (80%) HR women showed a significant difference in pre-NACT ECOG (p=0.007), ASA score (p=0.001), albumin level (p=0.001) compared to post-NACT setting, taking on LR features. All patients underwent interval surgery and complete cytoreduction was achieved in 97 (84%) cases. Among 42 (35%) post-operative complications, 7 (16%) were classified as G3-G4. Median progression free survival was 18 months (CI 95% 14–21), median overall survival was 54 months (CI 95% 34–73) (figure 1).



Abstract 2022-RA-1470-ESGO Figure 1 Progression-free survival and overall survival in HR patients

Conclusion NACT appeared to improve pre-treatment patient's characteristics that may account for an increase peri-operative morbidity. A comparison between the analyzed population and a statistically matched group of HR and LR patients undergoing primary debulking surgery is in due course.

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RANDOMIZED PHASE II CLIO STUDY ON OLAPARIB MONOTHERAPY VERSUS CHEMOTHERAPY IN RECURRENT OVARIAN CANCER – RESULTS OF THE LEUVEN HRD TEST

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Introduction/Background Poly(ADP-ribose)-polymerase inhibitors (PARPi) have changed the treatment landscape for high grade serous ovarian cancer. The CLIO trial (NCT02822157) evaluated olaparib (OLA) single-agent therapy versus physician's choice chemotherapy (CT) in recurrent epithelial ovarian cancer. Current available tests for homologous recombination deficiency (HRD) have been able to identify possible responders to PARPi, but improvements to these tests are necessary and validation in clinical trials is key.

Methodology With Leuven HRD test we provide an academic laboratory-developed method for HRD testing in ovarian cancer. The test was designed on DNA tumor samples of the biobank of University Hospitals Leuven and showed its predictive effect for OLA efficacy in the PAOLA-1/ENGOT-ov25 study (SGO 2022). Here we report the results of Leuven HRD test (LOH+TAI+LST) in the CLIO trial. Results will be compared to Myriad myChoiceDX on the same samples.