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CORRELATION OF HRD STATUS WITH CLINICAL AND SURVIVAL OUTCOMES IN PATIENTS WITH ADVANCED-STAGE OVARIAN CANCER UNDERGOING FRONTLINE AND MAINTENANCE THERAPY.

E-Poster Viewing
ORAL FEATURED POSTERS

Lecture Title:

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Objectives: We aimed to compare clinical and survival outcomes in high grade ovarian cancer (HGOC) stratified by homologous recombination deficiency (HRD) status undergoing frontline and/or maintenance therapy.

Methods: We performed a retrospective analysis of HGOC from April 2013 to June 2019. Clinical outcomes were analyzed by (1) germline BRCA+ (2) germline BRCA - and somatic BRCA/HRD+, or (3) BRCA-/HRD-. Progression free (PFS) and overall survival (OS) were estimated using Kaplan-Meier methods and modeled via Cox proportional hazards regression.

Results: 187 patients met inclusion criteria. 106 patients had germline BRCA mutation, 26 somatic BRCA/HRD+, and 55 BRCA/HRD-. Multivariate analysis for PFS revealed that age (HR 1.02, 95% CI 1.00-1.04), p=0.01), stage (HR 5.7, 95% CI 1.39-23.4, p=0.02), R0 resection at TRS (HR 0.41, 95% CI 0.21-0.83, p=0.01), and BRCA/HRD- status (HR 1.63, 95% CI 1.07-2.48, p=0.02) were significant factors impacting PFS. Multivariate analysis for OS revealed age (HR 1.07, 95% CI 1.03-1.10, p<0.001) and R0 resection at TRS (HR 0.19, 95% CI 0.08-0.44, p<0.001) were significant factors impacting OS. 17 of 187 patients received PARPi maintenance therapy. All harbored a germline or somatic mutation in BRCA1/BRCA2 (14) or had tumors characterized by HRD (3). Multivariate analysis for PFS revealed that PARPi maintenance therapy (HR 0.14 95% CI 0.04-0.57), p=0.006) was a significant factor impacting PFS.

Conclusions: Germline BRCA-mutant, somatic BRCA/HRD+ HGOC was associated with improved PFS and OS regardless of primary TRS or NACT. BRCA-/HRD- was a negative prognostic factor for survival in HGOC. PARPi maintenance therapy was associated with improved PFS in Germline BRCA-mutant, somatic BRCA/HRD+ HGOC