Poster 50: Exploratory analysis of patient-reported outcomes in individuals with newly diagnosed advanced ovarian cancer receiving neoadjuvant olaparib monotherapy vs. chemotherapy

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Topic
Ovarian

Objectives
A theoretical concern with neoadjuvant PARP-inhibitor therapy in patients with ovarian cancer (OC) is slower onset of meaningful disease response with inadequate control of symptom burden compared to chemotherapy. The objective of this study was to explore the longitudinal trajectory of patient-reported outcomes (PROs) in patients receiving neoadjuvant olaparib monotherapy versus chemotherapy and immunotherapy prior to interval cytoreductive surgery (ICS) in patients with untreated advanced-stage OC.

Methods
This study is an exploratory longitudinal comparison of PROs between two clinical trials: Neoadjuvant Olaparib Window in patients with newly diagnosed BRCA mutant OC (NOW; NCT03943173) and Neoadjuvant DURvalumab in combination with chemotherapy in patients with frontline advanced stage OC (N-DUR; NCT02726997). NOW was a single-arm, open-label study of olaparib monotherapy for two cycles prior to ICS in untreated advanced-stage OC and germline mutation in BRCA1/2. N-DUR was a single-arm, open-label study evaluating the addition of durvalumab to paclitaxel and carboplatin prior to ICS in untreated advanced-stage OC. PROs were measured using the MD Anderson Symptom Inventory – OC (MDASI-OC), a validated, 27-item symptom inventory for individuals with OC. MDASI-OC was completed weekly until ICS in both studies. Longitudinal mixed-effect modeling was performed to compare changes in disease- and treatment-related symptoms over time across the two studies.

Results
25 patients (NOW n=10 of 15, 66.6% response; N-DUR n=15 of 18, 83.3% response) completed 304 MDASI-OC assessments over 9 weeks. Baseline scores were similar across both groups. Across both studies, many symptoms improved significantly over time, including pain, fatigue, sleep disturbance, interference with general activity, and enjoyment of life (all $p < 0.01$). Multiple symptom scores differed between studies. Patients taking neoadjuvant olaparib reported more nausea, shortness of breath, and drowsiness but lower distress, memory difficulty, and numbness than those on chemotherapy (all $p < 0.05$). Patients on olaparib had significantly greater improvement in shortness of breath, drowsiness, and constipation over time compared to patients on chemotherapy (all $p < 0.05$). Interference with general activity, work, relations with others, and walking also decreased more significantly over time for patients on olaparib compared to patients on chemotherapy (all $p < 0.05$).

Conclusions
This exploratory analysis suggests that foregoing neoadjuvant chemotherapy in favor of neoadjuvant PARP inhibitor monotherapy in select individuals with advanced-stage OC is well-tolerated and offers clinically meaningful disease control that allows for successful ICS without chemotherapy-associated side effects.