

Plenary V

Efficacy of maintenance olaparib plus bevacizumab by biomarker status in clinical higher- and lower-risk patients with newly diagnosed, advanced ovarian cancer in the PAOLA-1 trial

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Introduction: In the Phase III PAOLA-1/ENGOT-ov25 trial (NCT02477644), adding maintenance olaparib to bevacizumab improved progression-free survival (PFS) in patients with advanced ovarian cancer in response after first-line platinum-based chemotherapy plus bevacizumab (HR 0.59; 95% CI 0.49–0.72) (Ray-Coquard et al. NEJM 2019). Outcomes in patients classified by clinical risk according to biomarker status are unknown.

Methods: Patients were classified as higher-risk (stage III patients with upfront surgery and residual disease or who received neoadjuvant chemotherapy, or stage IV patients) or lower-risk (stage III patients with upfront surgery and no residual disease). This exploratory analysis evaluated PFS in higher-risk and lower-risk patients, including by biomarker status: homologous recombination deficiency (HRD)-positive, HRD-negative/unknown and tumour BRCA mutation (BRCAm)-positive.

Results: Of 806 randomized patients, 74% were higher risk and 26% were lower risk, with median follow-up of 22.4 and 23.8 months, respectively. PFS significantly favoured olaparib plus bevacizumab versus placebo plus bevacizumab in higher-risk and lower-risk patients. In both higher- and lower-risk patients, the greatest PFS benefit was seen with olaparib plus bevacizumab versus bevacizumab alone in the HRD-positive subgroup (Figures 1 and 2) and the subgroup with a tumour BRCAm (Figure 2). Outcomes in the higher- and lower-risk HRD-negative/unknown subgroups are shown in Figure 2.

Conclusions: In PAOLA-1, maintenance olaparib plus bevacizumab provided a substantial PFS benefit over bevacizumab alone in higher-risk and lower-risk patients, especially in the HRD-positive and BRCAm populations.