EXAMINING REAL-WORLD TREATMENT BENEFITS OF FIRST-LINE MAINTENANCE NIRAPARIB IN NON-BRCA MUTANT HIGH GRADE SEROUS OVARIAN CANCERS

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Abstract

Introduction Maintenance PARP inhibitor therapy after response to first-line chemotherapy is standard of care in advanced high grade serous ovarian cancer (HGSOC). Progression free survival (PFS) benefit for patients on niraparib with non-BRCA mutant (m)/non-homologous recombination deficient (HRD) cancers is limited. This project aims to assess real-world benefits of first-line niraparib in non-BRCAm HGSOC. It investigates, in the absence of funded HRD testing in Canada, surrogate markers of niraparib response such as KELIM score.

Methods Retrospective chart review of patients with non-BRCAm/HRD unknown HGSOC treated with first-line maintenance niraparib at BC Cancer, Canada between 04/2020–06/2022. Demographic and treatment information was collected. PFS was defined as start of niraparib to radiological evidence of disease progression. KELIM score was calculated using validated software.

Results 83 patients were included; 25% had FIGO stage 4 disease. 68% underwent neoadjuvant chemotherapy with optimal cytoreductive rate of whole population of 72%. 60% had disease progression at data cut-off with median follow-up of 15.3 months. Median PFS (mPFS) on niraparib was 12.7 months (range 1.1–29.2). Patients given neoadjuvant chemotherapy with KELIM scores ≥1 had a trend to longer mPFS (14 months) vs. those with KELIM <1 (8.8 months) (p=0.03). Despite use of individualized starting dose (ISD), 60% required at least 1 dose reduction and 18% experienced grade 3 toxicity.

Conclusion/Implications mPFS on niraparib in this non-BRCAm/HRD unknown HGSOC population was 12.7 months. 60% of patients required a dose reduction due to toxicity despite ISD. KELIM score may be useful to predict PARP inhibitor response and aid clinical decision-making where HRD testing is unfunded.