Subgroup Analysis of Rucaparib in Platinum: Sensitive Recurrent Ovarian Carcinoma: Effect of Prior Chemotherapy Regimens in ARIEL3

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Background

In both subgroups, a greater proportion of rucaparib recipients in the ARIEL3 study (n = 43) were at high risk of progression based on objective response rate (ORR) or BICR progression-free survival (PFS) compared to placebo recipients (n = 17), and a greater proportion achieved a PFS of ≥24 months. Subgroup analysis is required to determine if the efficacy of rucaparib maintenance treatment is influenced by prior chemotherapy regimens.

Methods

In ARIEL3, all patients received ≥2 platinum-based regimens in accordance with the protocol published in March 2016. However, chemotherapy regimens prior to enrollment in ARIEL3 must have been plausibly independent of treatment in the current study. Patients were stratified into 2 or ≥3 prior chemotherapy regimens. Exploratory subgroup analysis focused on patients who received ≥2 or ≥3 prior chemotherapy regimens, with analyses performed on an intention-to-treat (ITT) basis:
- Non-adjusted and adjusted treatment administration before and after debulking surgery were considered independent treatments.
- Investigator-assessed and independent central review (ICR) assessed PFS were evaluated for patients who received ≥2 or ≥3 prior chemotherapy regimens in ≥3 independently defined risk subsets (Figures 1B and 2B).

Results

The majority of patients (62%) received 2 prior chemotherapy regimens (Table 1). Compared to placebo, rucaparib recipients (n = 189) who received ≥2 or ≥3 prior chemotherapy regimens had a significantly higher likelihood of maintaining PFS ≥24 months (Table 2). In both subgroups, rucaparib recipients also had a significantly higher likelihood of achieving a ≥24-month PFS compared to placebo recipients (Table 3).

Conclusions

Patients who received either 2 or ≥3 prior chemotherapy regimens and ≥2 platinum-based regimens in ARIEL3 achieved a greater proportion of PFS ≥24 months in both subgroups compared to placebo recipients. These data suggest that a greater proportion of patients who received ≥2 or ≥3 platinum-based regimens in ARIEL3 achieved ≥24-month PFS in both subgroups compared to placebo recipients. The results of this exploratory subgroup analysis support the conclusion that rucaparib maintenance treatment is effective in patients with recurrent ovarian cancer who have received ≥2 or ≥3 prior platinum-based regimens.