Clinical and Molecular Characteristics of ARIEL3 Patients Who Derived Exceptional Benefit From Rucaparib Maintenance Treatment for High-Grade Ovarian Cancer (HGOC)

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INTRODUCTION

Rucaparib is an oral, poly(ADP-ribose) polymerase (PARP) inhibitor approved in the United States and Europe for maintenance treatment of patients with BRCA-mutated advanced ovarian cancer. ARIEL3 (NCT02075827) and ARIEL1 and ARIEL2 detections were specifically associated with exceptional benefit (Figure 2, Table 2). Patients who progressed at their first scan on study (Figure 1) had significantly longer progression-free survival (PFS) when treated with rucaparib compared with placebo, respectively (Figure 2, Table 2).

Molecular Characteristics Associated With Exceptional Benefit

BRCA1 and BRCA2 mutations were significantly associated with high-grade ovarian cancer (HGOC) patients who derived exceptional benefit (Figure 2, Table 2). Patients who progressed at their first scan on study (Figure 1) had significantly longer progression-free survival (PFS) when treated with rucaparib compared with placebo, respectively (Figure 2, Table 2).

RESULTS

As of the December 31, 2016, data cutoff, with a median follow-up of 19 months (11.1% 95% CI) of 44 patients were still receiving rucaparib treatment and 6 (13.6%) patients discontinued rucaparib treatment. Of 13 (29.5%) patients who discontinued rucaparib treatment, 10 (22.7%) patients did so as a result of disease progression or lack of clinical benefit and 3 (6.8%) patients discontinued rucaparib treatment due to adverse events.

METHODS

Patients who derived exceptional benefit (PFS ≥2 years, defined as double the median PFS in the intent-to-treat [ITT] subgroup) were generally consistent between the exceptional benefit subgroup and the overall ARIEL3 patient population (14 rucaparib- and 4 placebo-treated patients); 9 cases were reported in each subgroup.

REFERENCES


ACKNOWLEDGMENTS

This work was supported by Clovis Oncology, Inc. Medical editorial assistance was provided by Emily W. Steinberg, PhD, and Ashley J. Dabbs, PhD, of InMED Communications, Inc., and Adam C. Kuester, PhD, of Excerpta Medica, Inc.

SUMMARY

In ARIEL3, 21% of patients in the rucaparib-treated arm derived exceptional benefit (progression-free survival 22 years) versus only 2% of those in the placebo arm. Exceptional benefit in ARIEL3 was more common in, but not exclusive to, patients with favorable clinical characteristics and known mechanisms of poly(ADP-ribose) polymerase inhibitor sensitivity, including BRCA1, BRCA2, RAD51C, and RAD51D mutations.


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