Safety and efficacy of extended bevacizumab therapy in elderly (≥70 years) patients treated for newly diagnosed ovarian cancer in the international ROSiA study

Frédéric Selle,1 Nicoletta Colombo,2 Jacob Korach,3 César Mendiola,4 Nicolas Martin,5 Stephen Robb,5 Amit M Oza6
1Groupe Hospitalier Dacorossans Crex Saint Simon et Alliance Pour la Recherche sur le Cancérologie, Paris, France; 2European Institute of Oncology and University of Milan-Bicocca, Milan, Italy; 3Sheba Medical Center, Tel Hashomer, Israel; 4Hospital Universitario 12 de Octubre, Madrid, Spain; 5Hoffmann-La Roche Ltd, Basel, Switzerland; 6Princess Margaret Hospital, University of Toronto, Toronto, ON, Canada

Background
- The efficacy and safety of bevacizumab combined with carboplatin and paclitaxel and then continued as a single agent up to 12 months have been established in two randomized phase III trials, GOG-218 and ICON7—7.
- Extended therapy beyond six cycles of chemotherapy has been evaluated in elderly patients with ovarian cancer.
- Although the Safety and Efficacy of Extended Bevacizumab Therapy in Elderly (≥70 years) patients with ovarian cancer study (O TILIA) was conducted in younger patients, there is a need for studies evaluating the safety and efficacy of extended therapy in elderly patients with ovarian cancer.

Methods and patients
- The study design is shown in Figure 1. The primary analysis was of patients treated with chemotherapy regimens including bevacizumab, with secondary analyses according to age, performance status, and baseline disease characteristics. Exploratory analyses were performed by age (age <70 years and age ≥70 years) and compared between the treatment arms with planned interim analyses.

Results
- Age ≥70 years was associated with a significantly lower proportion of patients completing six cycles of chemotherapy compared with younger patients (65% vs 95%, respectively). This difference was driven by a higher incidence of hypertension in older patients (odds ratio 1.63 [95% confidence interval (CI) 0.90 to 2.64]).
- Adverse events considered to be of special interest for bevacizumab are shown in Figure 4. A total of 262 patients treated with bevacizumab experienced a grade 3 or 4 adverse event, with hypertension (39.7%) and gastrointestinal perforation (7.1%) occurring most frequently.

Conclusions
- In bevacizumab-treated ovarian cancer patients aged ≥70 years, the incidence of low-grade diarrhea and grade >2 hypertension, thromboembolic events, and anemia were higher than those in patients aged <70 years.
- There were no other relevant increases in toxicity.
- Median PFS of ≥5 vs patients aged ≥70 years is similar to that observed in younger patients treated in ROSiA despite the worse prognosis in older patients.
- This finding is consistent with a recently presented interim analysis of ≥200 patients aged ≥70 years in STUCE (a German non-inferiority study of frontline bevacizumab therapy).
- Higher body mass index, presence of hypertension, and elderly patients should be monitored more closely while receiving bevacizumab.
- However, older age should not preclude use of bevacizumab for ovarian cancer in carefully selected patients aged ≥70 years.

References
4. Figure 4. Adverse events of special interest by age (all grades, grouped levels) by age

Acknowledgments
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Table 4. Efficacy according to age (at time of analysis of ~200 patients aged ≥70 years treated in OTILIA, a German non-inferiority study of frontline bevacizumab therapy)

Table 5. Summary of grade ≥3 adverse events of special interest by age

Table 6. Efficacy according to age

Table 2. Previous ongoing medical conditions at baseline

Table 3. Baselines characteristics by age

Table 1. Baselines characteristics by age

Figure 5. Most common (≥20% of patients) adverse events of any grade by age

Figure 4. Adverse events of special interest (all grades, grouped levels) by age

Figure 3. Most common (≥20% of patients) adverse events of any grade by age

Figure 2. Most common (≥20% of patients) adverse events of grade 3 or 4 by age

Figure 1. Study design

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