Selinexor, Bortezomib, and Dexamethasone in Patients With Previously Treated Multiple Myeloma: Updated Results of Boston Trial By Prior Therapies

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BACKGROUND

- While proteasome inhibitors (PIs) formed the backbone of frontline treatment for multiple myeloma (MM) for many years, lenalidomide and daratumumab based regimens, are being administered following the approval of the combination of daratumumab, lenalidomide, and dexamethasone (DRd) in newly diagnosed MM.
- At early relapse, PI-based combinations are increasingly utilized.
- ESMO Guidelines endorse the use of PI-based combination including selinexor, bortezomib, and dexamethasone (SVd) with PI-naive early relapse.

OBJECTIVE

- In this subgroup analysis of the phase 3 BOSTON trial (NCT03101562), 2021-03-25, the early relapse period was defined as ≤ 1 year since diagnosis, and patients on PI-based early relapse were classified into 3 subgroups based on the number of prior anti-MM regimens.
- The primary objective was to evaluate the efficacy and safety of PI-PI based regimens in patients with relapsed or refractory MM (RRMM) in adults who have received at least one prior line of therapy (LOT).

METHODS

- SVd was compared with Vd in the BOSTON, Selinexor, and Dexamethasone in Patients with Multiple Myeloma (BOSTON) pivotal, phase 3, open-label, global, randomized, controlled trial (Figure 1).
- This stratified analysis for PFS and ORR was performed in subgroups by prior PI therapy and number of prior regimens.
- Efficacy analyses were based on 15 Feb 2021 data cut and safety analyses on 15 Jun 2022 data extract.
- SVd reduced the risk of disease progression or death in all subgroups (Table 4-6, Figures 2, 4, 6).
- Time to next treatment (TTNT) was prolonged with SVd vs Vd in all subgroups (Figures 3, 5, 7).
- Overall response rates and very good partial response or better rates were higher with SVd vs Vd in all subgroups (Figures 3, 5, 7).

RESULTS

- Baseline characteristics were generally balanced between the SVd and Vd groups (Table 1).
- SVd over Vd in RRMM patients that had no prior exposure to PI.

EFFICACY

- ORR of > 50% in patients who had received 1 prior line of therapy.
- Overall response rates and very good partial response or better rates were higher with SVd vs Vd in all subgroups.
- The combined effectiveness of selinexor plus bortezomib and the importance of a double mode of action switch.

CONCLUSIONS

- Findings of these stratified subgroup efficacy and safety analyses confirm the PFS benefit of SVd over Vd in patients without prior PI or bortezomib exposure as well as in patients who have received 1 prior line of therapy.
- Statistically significant and clinically meaningful ~20-month median PFS improvement of SVd over Vd in RRMM patients that had no prior exposure to PI.
- A similar PFS ~20-month median PFS improvement was observed in patients who were PI-naive.
- A significant ~10-month PFS improvement with SVd vs Vd in patients who received one prior line of therapy.
- Overall response rates and very good partial response or better rates were higher with SVd vs Vd in all subgroups.
- Adverse events were generally manageable and aligned with the overall BOSTON population.
- These outcomes emphasize the combined effectiveness of selinexor plus bortezomib and the importance of a double mode of action switch.

REFERENCES