Different PSA response with abiraterone acetate between mCRPC patients treated in clinical trial and clinical practice

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Aim/Background: Previous reports have indicated that patients with cancer who are enrolled in clinical trials have better outcomes than those in clinical practice. We compared outcomes of patients treated with biraterone acetate (AA) for metastatic castration-resistant prostate cancer (CRPC) in clinical trial and in clinical practice.

Methods: We retrospectively reviewed the patient records of chemotherapy-naive patients with mCRPC treated with AA at National Cancer Center Hospital East in Japan. The primary outcome measures were to compare the rate of PSA decline $\geq 50\%$ and $\geq 30\%$ from baseline, and secondary outcome measures were to compare the 3-month and 6-month PSA progression-free survival (PFS).

Results: From April 2010 until April 2015, of 32 patients, 17 patients (53%) were treated with AA in a clinical trial (JPN101 and 201 trial) and 15 patients (47%) were treated in clinical practice. Patients treated in clinical trial had better performance status and heavier treatment history than patients in clinical practice. There was no significant difference in Gleason score, prior local treatment history, baseline PSA level at the time of AA initiation, the rate and the number of bone metastasis and median duration from mCRPC to AA initiation. The PSA declines $\geq 50\%$ from baseline were 88% in clinical trial patients vs 47% in the clinical practice patients ($p = 0.015$), and $\geq 30\%$ were 100% vs 60% ($p = 0.006$), respectively. On the other hand, 3-month and 6-month PSA PFS rates tended to be higher for patients in the clinical trials but were not statistically significant. In multivariate analysis, only treatment style (clinical trial or clinical practice) was identified as an independent predictor for PSA decline $\geq 50\%$.

Conclusions: Patients who were treated with AA in a clinical trial could achieve greater PSA decline than patients treated in clinical practice. However, this difference could not be adapted for PSA-PFS.

Disclosure: All authors have declared no conflicts of interest.