

Interim Analysis of an Open Label Phase II Study of Enzalutamide and Radium RA 223 dichloride in symptomatic, metastatic castration-resistant prostate cancer patients.

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Introduction and Objective:

We performed a prospective, multicenter, open label trial investigating the safety and tolerability and clinical efficacy of combining Enzalutamide, an androgen receptor inhibitor, with Radium Ra 223 dichloride, a targeted alpha radiotherapy and the combination subsequent effect upon patients with symptomatic, bone metastatic castration-resistant prostate cancer (mCRPC) patients.

Methods:

This open-label, phase II study (NCT02507570) enrolled patients with symptomatic bone metastases. Patients were assessed at baseline, day 1 of each of 6 Ra-223 cycles, and 30 days post final RA-223 treatment. The primary objective was safety and tolerability. Secondary objectives included bone pain response via the Bone Pain Index Short Form (BPI-SF), quality of life via the Functional Assessment of Cancer Therapy-Prostate (FACT-P), disease progression, palliative radiotherapy requirement, analgesic advancements, PSA and ALP progression, additional antineoplastic therapy, Eastern Co-operative Oncology Group performance status (ECOG), and overall survival. Data summaries from initiation of RA-223 through 30 day post RA-223 treatment are presented.

Results:

Of the 39 men ages 70±8.2 years that received at least two cycles of RA-223, 34 have completed 6 cycles of RA treatment and are continuing follow-up in this ongoing trial. A total of 10.3% (4/39) of patients reported serious adverse events (AEs) on or after RA-223 initiation, none were related to the treatment, and 53.8% (21/39) of patients had related non-serious AEs, most commonly fatigue, nausea, anemia/worsening of anemia, and decreased appetite. There were no deaths and no progression requiring additional antineoplastic therapy during this treatment phase. Average BPI-SF pain severity composite improved 0.7 to 1.2 at scheduled visits with RA-223 administered. Both BPI-SF interference composite and FACT-P quality of life have positive trends but were not statistically significant. ECOG performance status remained consistent. PSA improved 25% and 50% in 62.9% and 40% of patients, respectively, and ALP improved 25% and 50% in 62.9% and 40% of patients, by end of treatment.

Conclusion:

This prospective combination trial of Radium 223 and Enzalutamide demonstrates tolerability of use of these approved mCRPC agents with an acceptable safety profile and suggestion of improvement in pain scores, quality of life measures, and maintenance of performance status.

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