

# **Radium-223 (Ra-223) therapy after abiraterone: analysis of symptomatic skeletal events (SSEs) in an international early access program (iEAP) in patients with metastatic castration-resistant prostate cancer (mCRPC)**

## Background

The Ra-223 Phase III study (ALSYMPCA) was conducted before abiraterone became available. The Ra-223 iEAP study included abiraterone-treated patients. Here we assessed SSEs, overall survival (OS) and bone health agent (BHA) use in Ra-223-treated patients who received abiraterone as a prior treatment.

## Methods

This open-label, single-arm trial enrolled patients with bone-predominant mCRPC ( $\geq 2$  bone metastases). Patients who received prior anti-cancer therapies were included; use of BHAs (bisphosphonates and denosumab) was permitted before/during the study. Median follow-up was 7.5 months. Baseline characteristics, SSEs, (external beam radiation therapy, symptomatic pathological fractures, spinal cord compression or surgical intervention) and OS were analyzed descriptively for patients who completed prior abiraterone therapy and abiraterone-naïve patients.

## Results

Of 708 mCRPC patients, 85% of prior-abiraterone and 36% of abiraterone-naïve patients had previously received docetaxel. During Ra-223 therapy, 14% and 17% of patients received concomitant bisphosphonates and 20% and 17% concomitant denosumab in the prior-abiraterone and abiraterone-naïve groups, respectively. Median time since diagnosis of bone metastasis and start of Ra-223 was 37 and 21 months in the prior-abiraterone and abiraterone-naïve groups, respectively. Median PSA at baseline in the prior-abiraterone group was 290  $\mu\text{g/l}$  and 100  $\mu\text{g/l}$  in the abiraterone-naïve group. Median OS was 15.9 months overall (11.2 months for prior-abiraterone and 17.1 months for abiraterone-naïve patients). More patients had SSEs in the prior-abiraterone group (26%) than the abiraterone-naïve group (14%); incidence of pathological bone fractures was similar in both groups (5% for both).

## Conclusions

Patients in the prior-abiraterone group had a longer time from diagnosis of bone metastasis to Ra-223 initiation. These patients seem to have more-advanced disease, as reflected by higher median baseline PSA and more patients with prior docetaxel therapy. Similar rates of pathological and non-pathological fractures were reported in Ra-223-treated patients regardless of prior use of abiraterone.

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