

Baseline hormone levels may predict survival in metastatic, castration-resistant prostate cancer

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Patients with castration-resistant prostate cancer treated with the androgen inhibitor abiraterone and who had high baseline hormone levels had longer overall survival compared with patients with low hormone levels, according to data presented at the AACR Annual Meeting 2012, held here March 31 - April 4.

If confirmed, these data mean that levels of hormones, specifically adrenal androgens, may provide physicians with another way to predict the efficacy of therapy in patients with metastatic, castration-resistant [prostate cancer](#), according to Charles J. Ryan, M.D., associate professor of clinical medicine and urology at University of California-San Francisco Helen Diller Family Comprehensive Cancer Center in San Francisco, Calif.

"We have identified that patients who have higher levels of androgen compared with those with lower levels have a better prognosis overall and a better prognosis when receiving abiraterone than patients with lower levels of androgens," said Ryan. "Patients with low [hormone](#) levels seem to have a worse prognosis overall; however, they still benefitted significantly from receiving abiraterone as opposed to receiving [placebo](#)."

In the past, this form of prostate cancer was referred to as hormone-refractory prostate cancer. However, this term is no longer used because,

in recent years, researchers have discovered that certain drugs, like abiraterone, which are essentially hormone therapies, improve outcomes and [survival rates](#).

In this prospective substudy, Ryan and colleagues evaluated data from a randomized [phase III](#) trial that compared abiraterone to placebo and led to the approval of abiraterone. They categorized patients according to high levels or low levels of hormones.

The results indicated that higher baseline hormone levels were associated with significantly higher overall survival in patients regardless of initial treatment compared with low baseline levels. Patients assigned to placebo and who had high hormone levels had nearly 50 percent improvement in survival compared with those assigned to placebo and who had low hormone levels. In addition, abiraterone was associated with longer overall survival compared with treatment with placebo in patients with high and low levels of baseline hormones.

Patients assigned to abiraterone who had high baseline levels of hormones had almost twice the overall survival compared with those with low levels of hormones assigned to placebo.

"We used to think that it was not necessary to measure [hormone levels](#) once they were below normal — that was in part due to the fact that we were using insensitive assays," Ryan said. "However, now we know that they have prognostic and predictive significance and that physicians treating these patients should think about conducting hormone tests."

According to Ryan, more work is required to determine how these data will inform the standard-of-care management of [patients](#) with prostate cancer; however, it is likely that these data will affect the design of future clinical trials.

Provided by American Association for Cancer Research

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