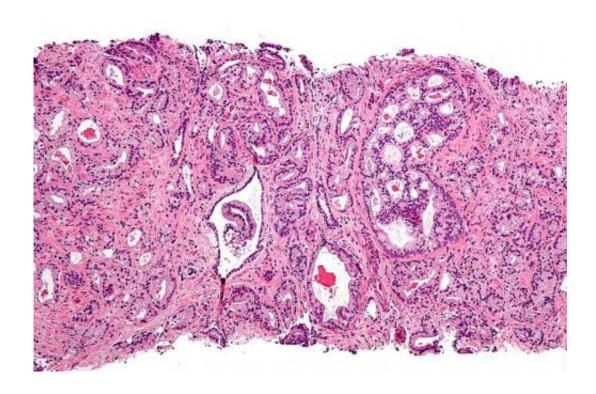


African-American men negatively impacted by hormone therapy for treatment of prostate cancer

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Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, <u>CC BY-SA 3.0</u>

In a retrospective study analyzing patients' medical records, researchers at Brigham and Women's Hospital found that patients' race significantly affected their longevity by increasing the likelihood of death after receiving androgen deprivation therapy (ADT). ADT was used to reduce



the size of the prostate to make a patient eligible for prostate brachytherapy. These findings are published in the August 4, 2016 issue of *Cancer*.

Konstantin Kovtun, MD, a resident at BWH, Anthony D'Amico, MD, PhD, chief of Genitourinary Radiation Oncology at BWH, and colleagues, analyzed the <u>medical records</u> of over 7000 <u>men</u> from the Chicago Prostate Cancer Center who had low or favorable-intermediate risk <u>prostate cancer</u>, 20 percent of whom were treated with ADT in order to reduce the size of their <u>prostate gland</u> to make them eligible for brachytherapy. They found that African-American men who were treated with ADT had a 77 percent higher risk of death when compared to non-African American men, the causes of which were not due to prostate cancer.

"When African-American men were exposed to an average of only four months of hormone therapy, primarily used to make the prostate small enough for brachytherapy, they suffered from higher mortality rates due to causes other than prostate cancer than non-African American men," Kovtun explained. "This leads us to believe that there may be something intrinsic to the biology of African-American men that predisposes them to this increased risk of death and that this deserves further study."

ADT is an antihormone treatment that lowers a man's testosterone level, and been used to reduce the size of the prostate and in turn make the subsequent brachytherapy treatment possible. This team of BWH researchers is the first to observe the negative effects of ADT in the context of racial differences, specifically comparing African-American men to non-African American men after adjusting for age, comorbidities such as heart disease and established prostate cancer prognostic factors.

"These results show that careful consideration should be taken by



physicians when recommending treatment for low or favorable-intermediate prostate cancer, a cancer that very few men die of even without treatment," D'Amico said. "There is no evidence that ADT followed by brachytherapy increases the chance of cure in comparison to other treatments, such an external beam radiation therapy alone, in these men with favorable risk prostate cancer. The subsequent risks of ADT, specifically linked to African-American men, deserve further study."

Future research is indicated to explore the basis for the observation of shortened survival in African-American men following ADT use with the hope of developing effect and personalized treatments for all men with prostate cancer.

Investigators report no funding sources for this research.

More information: Konstantin A. Kovtun, MD; Ming-Hui Chen, PhD; Michelle H. Braccioforte, MPH; Brian J. Moran, MD; Anthony V. D'Amico, MD, PhD. Race and mortality risk following radiation therapy in men treated with or without androgen suppression therapy for favorable-risk prostate cancer. *Cancer*. DOI: 10.1002/cncr.30224

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