Prostate Cancer Treatment Racial/Ethnic Disparity in the 21st Century

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I just recently graduated with my Masters from the University of Buffalo and Roswell Park Cancer Institute. I am not a medical student but am in the process of applying.

Here is a brief overview of current statistics regarding prostate cancer. There are an estimated 217,000 new cases of prostate cancer this year, and of those new cases, approximately 30,000 of them will lead to death due to prostate cancer. Prostate cancer is the most common noncutaneous cancer in the U.S., and is also the second leading cause of death due to the cancer in American men.

My research looks at prostate cancer and race. Black men, in comparison with all other racial/ethnic groups, have the highest incidence and mortality due to prostate cancer. Black men are 1.5 times more likely to develop prostate cancer, and twice as likely to die from prostate cancer, when compared to White men. With Hispanic men, prostate cancer is the most commonly diagnosed form of cancer, and in all other minority groups, in comparison to White men, Blacks, Hispanic, and Asian men are more likely to have a higher grade of prostate cancer at their time of presentation.

There have been previous reports of prostate cancer and racial/ethnic disparities. Hoffman and Underwood have published articles regarding the presence of racial/ethnic disparities in the treatment of clinically localized prostate cancer. Both researchers concluded that there is a constant prevalence of a racial/ethnic disparity when treating clinically localized prostate cancer, focusing primarily on Black and Hispanic men, in comparison to White men.

The purpose of my study was to determine whether or not a racial/ethnic disparity in the treatment exists among men diagnosed with clinically localized prostate cancer between the years of 2003-2006, to give a more modernized approach of the racial/ethnic disparity in the treatment of prostate cancer. This study utilized SEER, the Surveillance Epidemiology and End Results registry, which represents 26% of the American population. Certain groups were excluded from this study, leading to a final cohort of 171,076 men.

The American Cancer Society has identified the following treatments as best in treating clinically localized prostate cancer: active surveillance, radical prostatectomy, external beam radiation, brachytherapy, or a combination of these. We define definitive treatment as receiving a radical prostatectomy, external beam, brachytherapy, or a combination of these. SEER does not release information on the use of androgen deprivation therapy.

In summary, the study findings suggest that in the 21st century, the racial/ethnic disparity seen in the 20th century, in terms of treatment of clinically localized prostate cancer, is still prevalent. Black and Hispanic men present with higher grade prostate cancer and are less likely to receive definitive treatment, when compared to White men. This disparity in treatment exists among men diagnosed with poorly differentiated or high mortality risk prostate cancer.

Future directions of my study is that this can contribute to the overall report of Black-White prostate cancer disparities and mortality. I think that future research should include a focus on the factors that influence these racial/ethnic differences, and hopefully a removal of the disparity.

Dr. Litwin

Our other winner is Brittany Jones, also an undergraduate student whose work was done at the University of Nebraska, who will speak on the role of curcumin in the inhibition of prostate cancer cell growth.