'Active surveillance' may miss aggressive prostate cancers in black men

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A Johns Hopkins study of more than 1,800 men ages 52 to 62 suggests that African-Americans diagnosed with very-low-risk prostate cancers are much more likely than white men to actually have aggressive disease that goes unrecognized with current diagnostic approaches. Although prior studies have found it safe to delay treatment and monitor some presumably slow-growing or low-risk prostate cancers, such "active surveillance" (AS) does not appear to be a good idea for black men, the study concludes.

"This study offers the most conclusive evidence to date that broad application of active surveillance recommendations may not be suitable for African-Americans," says urologist Edward M. Schaeffer, M.D., Ph.D., a co-author of the study. "This is critical information because if African-American men do have more aggressive cancers, as statistics would suggest, then simply monitoring even small cancers that are very low risk would not be a good idea because aggressive cancers are less likely to be cured," he says. "We think we are following a small, nonaggressive cancer, but in reality, this study highlights that in black men, these tumors are sometimes more aggressive than previously thought. It turns out that black men have a much higher chance of having a more aggressive tumor developing in a location that is not easily sampled by a standard prostate biopsy."

A report of the study, posted online and ahead of the print version in the *Journal of Clinical Oncology*, describes it as the largest analysis of potential race-based health disparities among men diagnosed with a slow-

growing, very nonaggressive form of prostate cancer.

The Johns Hopkins study also showed that the rate of increased pathologic risk, as measured by the Cancer of the Prostate Risk Assessment (CAPRA), was also significantly higher in African-Americans (14.8 percent vs. 6.9 percent). The 12-point CAPRA score is an accepted predictor of biochemical disease recurrence based on blood levels of prostate specific antigen, Gleason score, lymph node involvement, extracapsular extension, seminal vesicle invasion, and positive surgical margins. Schaeffer and his team say their data suggest that "very-low-risk" African-Americans have different regional distributions of their cancers and appear to also develop more high-grade cancers. Researchers added that these tumors hide in the anterior prostate—a region that is quite difficult to assess using current biopsy techniques.

All study participants, of whom 1,473 were white and 256 black, met current National Comprehensive Cancer Network (NCCN) criteria for very-low-risk prostate cancer, and were thus good candidates for AS. The study showed that preoperative characteristics were similar for very-low-risk whites and blacks, although black men had slightly worse Charlson comorbidity index scores, a commonly used scale for assessing life expectancy. Detailed analysis showed that black men had a lower rate of organ-confined cancers (87.9 percent vs. 91.0 percent), a higher rate of Gleason score upgrading (27.3 percent vs. 14.4 percent) and a significantly higher hazard of prostate-specific antigen (PSA) defined biochemical recurrence (BCR) of prostate cancer. The latter measure is widely used for reporting the outcome of surgical prostate removal.

According to Schaeffer, the median age of men in his study was 58, younger than the median ages (62 to 70) of most men in AS groups. And he cautioned that the age difference is a potential "confounder" of his results, highlighting the need for more studies to gauge the safety of AS.

Schaeffer, associate professor of urology, oncology and pathology at the Johns Hopkins University School of Medicine and director of global urologic services for Johns Hopkins Medicine International and co-director of the Prostate Cancer Multi-Disciplinary Clinic at The Johns Hopkins Hospital's James Buchanan Brady Urological Institute, emphasizes that "the criteria physicians use to define very-low-risk prostate cancer works well in whites—this makes sense, since the studies used to validate the commonly used risk classification systems are largely based on white men." But, he adds, "Among the vast majority of African-American males with very-low-risk cancer who underwent surgical removal of the prostate, we discovered that they face an entirely different set of risks."

"Alternate race-specific surveillance entry criteria should be developed and utilized for African-American men to ensure oncologic parity with their white counterparts. Our research team, in collaboration with the internationally recognized Hopkins pathologist Dr. Jonathan Epstein, is currently developing new race-based risk tables that begin to solve this key issue," adds Schaeffer.

All of the men whose records were analyzed for the current study were selected from a group of 19,142 who had surgery at The Johns Hopkins Hospital between 1992 and 2012 to remove the prostate gland and some of the tissue around it.

Previous published research, Schaeffer says, revealed significant racial disparities in prostate cancer, with African-Americans having a much higher incidence of death from the disease than Caucasian men. According to the National Cancer Institute, black men have considerably higher incidence rates (236 cases per 100,000 from 2005 to 2009) than white men (146.9 cases per 100,000 per 2005 to 2009). The reasons for this are unclear.

"In the laboratory, we are developing new strategies to more accurately risk-classify African-Americans with newly diagnosed prostate cancer, in order to determine whether a patient should undergo active surveillance or have immediate treatment," says Schaeffer. "And we are beginning to work out the science behind why prostate cancers have a tendency to hide out in the anterior prostate, specifically in African-Americans."

Schaeffer says the main limitation to their study is that it is a retrospective analysis of the experience of a single academic medical center. "The results of our study do not support the universal rejection of AS in black men, but, rather, should promote future studies to address whether alternate race-specific surveillance entry criteria should be used for African-American men to ensure oncologic parity with their white counterparts," adds Schaeffer.

More information: jco.ascopubs.org/content/early … 7.0302.full.pdf+html

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