

African-American men less likely to use targeted prostate cancer detection method

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Dr. Abhinav Sidana during a prostate cancer procedure. Credit: Colleen Kelley/University of Cincinnati Creative Services

Researchers at the University of Cincinnati have found in a retrospective study that African-American men are less likely to use a more targeted



biopsy option for prostate cancer, despite an increased incidence in this group of patients.

These findings are published in the March 9 issue of the journal *Prostate Cancer and Prostatic Diseases*. The study is led by Connor Hoge, a student at the UC College of Medicine, and Dr. Abhinav Sidana, director of urologic oncology and assistant professor in the Division of Urology at the UC College of Medicine. Sidana is also a UC Health urologist.

"Black men have a significantly <u>higher incidence</u> and are up to three times more likely to die of <u>prostate cancer</u> than white men," says Sidana, corresponding author on this study. "MRI-ultrasound biopsy has emerged as a promising option for the detection of prostate <u>cancer</u>. In this study, we wanted to identify differences in use of MRI-ultrasound biopsy between black and white men with possible prostate cancer."

Sidana says the standard biopsy for men with suspicion of having prostate cancer is a random needle collection of between 12 to 40 samples from the prostate. However, because of the random nature of the collection, this can lead to overdiagnosis of prostate cancer where treatment is not needed, underdiagnosis prostate cancer where treatment is needed and a higher rate of tests that read negative for cancer when it is truly malignant.

With fusion biopsy, a navigation system similar to a GPS tracking device allows physicians to target biopsies to the exact suspicious location. MRI and ultrasound images are aligned and overlaid on real-time ultrasound to identify targets that are then labeled high, medium or low suspicion for cancer. This allows doctors to pinpoint the biopsy, meaning less sticks with a needle and more accurate samples.

The study included 619 men, of which 182 were African-American and 437 were white; the patients were all treated at UC Medical Center.



Forty-one (22.5%) African-American men underwent MRI-ultrasound biopsy compared with 225 (51.5%) of white men.

"After adjusting for other factors, including age, race, prostate-specific antigen levels (which can determine risk for prostate cancer in the blood), other physical screening tactics, <u>family history</u> and health insurance providers, the odds of African-American men having MRI-ultrasound biopsies were one-third the odds of <u>white men</u> having that type of biopsy," says Sidana. "Although MRI-ultrasound biopsies are shown to be a better way to detect early-stage prostate cancer, we're seeing this deficiency in a group of patients that would benefit the most from its use. We need to further investigate whether this difference is due to patient preference or if there are underlying socioeconomic, cultural or provider biases influencing this."

More information: Connor Hoge et al, Racial disparity in the utilization of multiparametric MRI–ultrasound fusion biopsy for the detection of prostate cancer, *Prostate Cancer and Prostatic Diseases* (2020). DOI: 10.1038/s41391-020-0223-5

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