Baseline PSA an Accurate Predictor of Cancer Risk

BY DAMIAN McNAMARA
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ORLANDO — Among men who have a baseline prostate-specific antigen level above the median for their age, being African American and having a positive family history are predictive of future cancer. However, a baseline reading above the median was a more powerful overall predictor than were these two other factors, according to a study of 26,111 men.

"Our results demonstrated that the effect of [elevated] baseline PSA is so strong that it even holds true for men with two risk factors," Dana M. Mondo said during a press briefing at the annual meeting of the American Urological Association. Compared with both race and family history, "baseline PSA reading is a more powerful clinical tool when it comes to predicting future risk of prostate cancer."

It is widely accepted that African American men and those with a strong family history of prostate cancer are at increased risk (Prostate Cancer Prostatic Dis. 2008 Feb. 12 Epub ahead of print; J. Urol. 2007;177:444-9). "Having a baseline PSA level above the age-specific median has also been shown to increase risk, but has not been incorporated into most prostate cancer guidelines," Ms. Mondo said.

The aim of the study was to determine if race, family history, or PSA was the most important predictor of risk. "This is a timely study," said Dr. Stephen J. Freedland, moderator of the press briefing. "We know prostate cancer is a very common disease. Three standard risk factors are age, race, and family history. And we are learning more and more about PSA values and how to use that to predict who will develop prostate cancer."

The participants volunteered in 1991-2001 for PSA testing and a digital rectal examination. Researchers assessed both African American men and white men with and without family histories of

Longest Prostate Ca Survival Seen After Surgery

ORLANDO — Men who have surgery to remove prostate cancer experience better long-term survival, compared with patients who have radiation therapy or watchful waiting, according to a retrospective study of African American and white men.

Researchers assessed survival in a cohort of 23,811 men diagnosed with prostate cancer enrolled in the HMO Cancer Research Network in which 12 health maintenance organizations nationwide participate.

This source of data has an advantage compared with previous, population-based studies that assessed possible racial differences in outcomes, said Dr. Gerald Y. Tan. "Comparisons using HMO data may control for treatment selection biases across racial groups. Black men have equal access to care when you use an HMO database versus a population database," said Dr. Tan of the department of urology at New York Weill Cornell Medical Center, New York.

A total of 10,450 men chose watchful waiting for their prostate cancer management, 6,804 chose radical prostatectomy, and 6,557 chose radiation therapy.

The cohort comprised 3,613 African Americans, 17,345 whites, and 2,853 patients who reported their race as "other." The researchers looked for differences between African American and white men.

A total of 44% of the African American and white men chose watchful waiting. In the remaining African American and white men, 30% and 28%, respectively, chose surgery, and 26% and 28% chose radiation.

Men treated with surgery lived longer than did men in the other two groups, Dr. Tan said at the annual meeting of the American Urological Association. After a mean follow-up of 6.6 years, 37% of the watchful waiting group, 15% of the surgery group, and 24% of the radiation group had died.

The prostate cancer–specific death rate was highest in the conservative treatment group, regardless of race, and better for African American men, compared with white men in the radiation and surgery groups, said Dr. Tan, who presented results on behalf of the principal investigator, Dr. Robert A. Leung, a urologist at the same institution. The retrospective design and unavailability of data regarding family history of prostate cancer were potential limitations of the study, Dr. Tan said.

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prostate cancer and then stratified them by age. In all, 329 men both were African American and reported a positive family history.

Researchers compared outcomes for three groups: men in their 40s, 50s, and 60 and older. Mean follow-up was 20 months, 71 months, and 81 months, respectively, in these age groups. There were equal numbers of men in each group with a baseline PSA above and below their age-specific median—0.7 ng/mL for men in their 40s, 0.9 ng/mL for men in their 50s, and 1.4 ng/mL for men in their 60s and older, said Ms. Mondo, a medical student at Northwestern University, Chicago.

Results of the study show that men who both are African American and have "a family history of prostate cancer and a baseline [PSA] below the median had a very low prevalence of prostate cancer," Ms. Mondo said.

There were no cancers in patients with both risk factors and a lower PSA level in the 40- and 50-year-old age groups. However, three (14%) men aged 60 years or older developed prostate cancer during follow-up.

In contrast, in men with both risk factors and a PSA level above the median, cancer prevalence rates increased with age: 8% for men in their 40s, 16% for men in their 50s, and 30% for men aged 60 and older.

The findings could lead to highly individualized screening for prostate cancer based on a man's baseline PSA value and how it relates to established, age-specific medians, Ms. Mondo said.

Nine major professional organizations issue prostate cancer–screening guidelines, but only the National Comprehensive Cancer Network (NCCN) currently recommends a baseline PSA test beginning at age 40. "We believe all men starting at age 40 should have a baseline PSA measured," Ms. Mondo said.

Other organizations should consider instituting baseline PSA readings, she said. The American Urological Association PSA Best Practice Guidelines from 2000 recommend PSA screening beginning at age 50, although a lower minimum age is under consideration for an update to be released this year, Dr. Kristen L. Greene said during a different presentation at the meeting. Dr. Greene is on the urology faculty at the University of California, San Francisco.

"If you can know one fact about the patient, the PSA is what you want to know," said Dr. Freedland of the division of urologic surgery at Duke University, Durham, N.C. "I agree that the NCCN is on the forefront of where we need to go. And if you are low at age 40, you may not need to repeat it for 5 years." ■