Black Men With High Circulating Vitamin D Binding Protein May Be At Lower Risk Of Prostate Cancer -Dr. David Samadi

Dr. David Samadi provides his opinion on a recent study finding that elevated levels of circulating vitamin D binding protein may be associated with a reduced risk of prostate cancer in black men.

New York, New York (PRWEB) April 18, 2017 -- In a recent prospective study of black men, a group at high risk of both vitamin D deficiency and prostate cancer, it was found that serum vitamin D binding protein was inversely associated with prostate cancer risk independent of 25(OH)D status. This study was part of the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial (PLCO) that studied 678 black men who were part of this trial.

“We know that black men not only have a higher risk for prostate cancer but also are diagnosed at an earlier age with oftentimes a more aggressive form of it,” stated Dr. Samadi. “In the United States, there is a 70% higher incidence for prostate cancer among black men who also have more than double the likelihood of dying from the disease when compared to white men. On top of that, there is a higher prevalence of low vitamin D status among black individuals due to their higher melanin content in their darker skin.”

It is the high melanin content that reduces the synthesis of vitamin D3 from 7-dehydrocholesterol when exposed to ultraviolet B radiation that increases the chance of black men having a low vitamin D status. This is also compounded by the fact that black men tend to have a lower dietary and supplemental intake of vitamin D.

“A basis of this study was to look at the fact that black men when compared to white men have higher prostate cancer rates along with lower vitamin D status,” said Dr. Samadi. “Therefore, the researchers wanted to look at this association of the relationship between vitamin D status and prostate cancer risk in black men in the PLCO trial study.”

In the study, out of the 678 black men participating, 226 of the men had prostate cancer, (101 were aggressive cases and 125 were nonaggressive). The men with prostate cancer had been matched with 452 men who were the controls by age at randomization, date of blood draw, calendar year of cohort entry, and time since baseline prostate cancer screening.

In the body, vitamin D undergoes two steps. One is in the liver where 25-hydroxyvitamin D (25(OH)D), the accepted biomarker of vitamin D status, is synthesized and secondly, in the kidneys where the biologically active form, 1,25-dihydroxyvitamin D (1,25 (OH)2D) is produced. Approximately 99% of 25(OH)D is bound to serum proteins which is mainly vitamin D binding protein (DBP) which leaves a very small amount of unbound or “free” 25(OD)D.

What was found was that serum 25-hydroxyvitamin D was not associated with an overall increased prostate cancer risk but serum vitamin D binding protein was significantly inversely associated with prostate cancer risk.

“There was a 55% reduced odds of prostate cancer in men in the highest quartile of vitamin D binding protein when compared with men in the lowest quartile,” explained Dr. Samadi. “This study is suggesting that in black men a higher versus a lower circulating vitamin D binding protein may be associated with a lower risk of
prostate cancer."

Dr. Samadi cautioned on how the results of the study should be interpreted. “Keep in mind, this study has some limitations one of which limited number of participants. What will give this finding more strength is if larger prospective studies of populations of black men are conducted to help clarify the relationship between vitamin D and prostate cancer in black men. In the meantime, black men should always work on obtaining sufficient sources of vitamin D with appropriate amounts of sunlight, food sources of it and to inquire with their physician on their recommendation on the use of vitamin D supplements.”

Patients newly diagnosed with prostate cancer can contact world renowned prostate cancer surgeon and urologic oncologist, Dr. David Samadi. For a free phone consultation and to learn more about prostate cancer risk, call 212-365-5000.
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