

No link found between vitamin D level and fatal prostate cancer

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(HealthDay)—Neither circulating 25-hydroxyvitamin D (25[OH]D) levels nor common variations in vitamin D pathway genes appear to be associated with risk of fatal prostate cancer, according to research published online March 2 in *Cancer*.

Irene M. Shui, Sc.D., of the Harvard School of Public Health in Boston, and colleagues identified 518 fatal cases of <u>prostate cancer</u>, and 2,986 controls, with 25(OH)D data in a large cohort consortium. Vitamin D-related genetic information was available for 496 fatal cases and 3,577 controls. The associations of circulating 25(OH)D and common variations in key vitamin D-related genes with fatal prostate cancer were assessed.



The researchers observed no significant associations between 25(OH)D and fatal prostate cancer (odds ratio for extreme quartiles, 0.86; 95 percent confidence interval, 0.65 to 1.14; P for trend = 0.22) or between the main effects of the <u>single nucleotide polymorphisms</u> (SNPs) and fatal prostate cancer. Some evidence suggested that associations of several SNPs with fatal prostate cancer, including five SNPs related to circulating 25(OH)D, were modified by 25(OH)D. Individual associations of these SNPs did not remain significant after multiple testing; however, the P value for the set-based test for *CYP2R1* was 0.002.

"Statistically significant associations were not observed for either 25(OH)D or vitamin D-related SNPs with fatal prostate cancer," the authors write. "The effect modification of 25(OH)D associations by biologically plausible genetic variation may deserve further exploration."

One author disclosed financial ties to Merck.

More information: Abstract

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