Clinical Update

Vitamin D Protects Against Colon Tumors

But Vitamin D does not protect against most cancers, says study

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High blood levels of vitamin D did not lower the overall cancer death rate in a long-term study, researchers report. However, they did note a marked reduction in colorectal cancer deaths linked to the vitamin. The findings, by a team from the U.S. National Cancer Institute, run counter to some earlier data suggesting that vitamin D might help prevent malignancy.

"Over the past several years, a number of publications have suggested that vitamin D can reduce deaths from various forms of cancer," said Dr. Len Lichtenfeld, deputy chief medical officer of the American Cancer Society. "This is a further bit of evidence that leads us to call for further investigations before we make recommendations for the general population."

Even the finding that the vitamin might lower colon cancer risk merits further study, added Lichtenfeld, who was not involved in the research. "We have called for further research to see if vitamin D does or does not reduce deaths from cancer," he said. "We do not have sufficient evidence at this time to make a recommendation, for example, that people increase their intake of vitamin D to reduce the risk of colorectal cancer."

In their study, the NCI team looked at data on almost 17,000 participants in the third Health and Nutrition Examination Survey who were followed for anywhere from six to 12 years. There were 536 deaths from cancer in the group during that time.

The study found no relationship between overall cancer deaths and circulating blood levels of vitamin D, said the report, published in the Oct. 30 issue of the Journal of the National Cancer Institute. However, people with higher levels of circulating vitamin D had a 72 percent lower risk of colorectal cancer mortality than those with lower levels, the report found.

These numbers can't be taken to mean that vitamin D prevents colorectal cancer because the study was not large enough and didn't run long enough to provide definitive information, said Cindy Davis, a program director in the NCI nutrition sciences research group and co-author of an accompanying editorial.

"Cancer is a very long process, and there is an even longer period between incidents of mortality," Davis said. "There was only a very small number of cancer deaths. If there is a relationship, this study is not large enough to show one." Some other studies have given evidence that vitamin D may provide protection against colon cancer, but others have not, she noted.

In addition, Davis added, "We don't know what the optimum level of vitamin D is, we don't know whether genetics might affect the benefits, and we need to consider interactions with other dietary components. Some people may be put at risk. Evidence suggests an increase in kidney stones [with excess vitamin D], and while a kidney stone is not cancer, it is a problem."

The current recommendation for vitamin D is 200 International Units a day, Davis said, and "I believe that when possible, people are better off meeting their nutritional needs through diet rather than through supplements."

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Some foods, such as milk, are fortified with vitamin D, and the nutrient can be found in some fish and fish oils, according to the U.S. National Institutes of Health. The skin also manufacturers vitamin D upon exposure to sunlight.

D. Michal Freedman, the NCI epidemiologist who led the study, said its main finding "was the lack of a relationship between total cancer deaths and vitamin D levels." Freedman downplayed the colorectal cancer data as "a secondary finding."

"The study doesn't address the issue of the effects of vitamin D in the blood," Freedman said. "The issue of what people should be taking in terms of vitamin D involves a lot of other factors."

In a related study published in the same issue of the journal, a team at the University of Texas M.D. Anderson Cancer Center, in Houston, found that treatment with a derivative of vitamin A might help reduce former smokers' risk of developing lung cancer.

Patients who received the derivative, called 13-cis-retinoic acid, displayed reduced lung cell growth of the type that might later form cancers, the team reported.