A recent study reveals a potential link between poor vitamin D status and an increase in breast cancer risk.

The role of vitamin D in breast cancer prevention

The risk of breast cancer relative to vitamin D status has been evaluated in several previous studies. A number of links between vitamin D status and cancer risk have been observed, including a higher occurrence of breast cancer in geographic areas with lower sun and UV exposure, and an inverse relationship between vitamin D status and breast cancer stage, recurrence and mortality. Less is known about whether it is vitamin D status itself or another aspect of sunlight or UV exposure that is a key to breast cancer prevention.

In a new study published in the American Journal of Clinical Nutrition, researchers analyzed the relationship between serum vitamin D concentrations and the risk of breast cancer. The participants included 240 Saudi women, half of whom had been diagnosed with breast cancer (case group) and the other half that were free of cancer (control group).

The average serum vitamin D level of the women with cancer was 9.4 ng/ml (23.5 nmol/L), while the control group had an average vitamin D level of 12.31 ng/ml (30.7 nmol/L). The difference in the groups was statistically significant. Most experts, including the authors of this study, recommend a vitamin D level of at least 20 ng/ml. Only 6.7% of the case group met this recommendation, while 27.5% of controls did.

In total, this study provides statistically significant results to support previous research showing a link between breast cancer risk and vitamin D status.

Yousef FM, Jacobs ET, Kang PT, et al. Vitamin D status and breast cancer in Saudi Arabian women: case-control study. Am J Clin Nutr. 2013;98(1):105-10.

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