

16th GLOBAL ANNUAL ONCOLOGISTS MEETING

April 24-25, 2017 Dubai, UAE

From bench to bed: Impact of vitamin D3 replacement therapy on clinical outcomes and survival rates in cancer patients

Mahdi Shahriari

Shiraz University of Medical Sciences, Iran

Introduction: In literature some studies suggested that in the cell culture of cancer cells (*in vitro*), mega doses of vitamin D has anti-proliferative effect and inhibits cell growth, also in some clinical (*in vivo*) studies patients having solid malignancies poor prognosis is associated with vitamin D3 deficiency and replacement of vitamin D3 might have positive impact on prognosis. However, some of the results of the studies were against this suggestion. Therefore, in the current study we aimed to do a systematic review to compare the clinical, pathological features and survival rates in patients with early breast cancer having regular vitamin D3 replacement or not.

Method: Medline (Pubmed Central), Scopus, ISI, ISC, EMBASE, Science Direct and Google Scholar was surveyed. Inclusion criteria for this study were all review literatures, case reports, clinical trials and *in vivo* studies about the effect of vitamin D supplementation, blood level of vitamin D life styles, nutritional habits and also *in vitro* studies about vitamin D and cell growth or tumor suppression. Exclusion criteria were non-English language and case reports that were addressed in the review literatures.

Results: 5 review literatures, 12 case reports and 6 *in vivo* studies had inclusion criteria, so we critically studied about their material and methods. The results of the included studies on the association between cancer risk and vitamin D were much less consistent. Only those studies that prospectively examined the vitamin D3 serum levels in relation to risk of colorectal cancer are homogeneous: they all reported inverse associations, although not all reaching statistical significance. 4 case-control and 3 prospective studies were included. 3 case-control studies observed no correlation between the risk of NHL and vitamin D intake. Polesel et al. (2006) found an inverse association between vitamin D intake and NHL risk. In the prospective study of Freedman et al. (2007), no relations were found between 25-VitD levels and mortality of NHL. Using data of the Health Professionals Follow-up Study, Giovannucci et al. (2006) calculated that an increment of 25nmol/l of the predicted 25-VitD levels was associated with a, non-significant, risk reduction of NHL.

Conclusion: Vitamin D deficiency has been linked to several common cancers, including cancers of the breast, colon and prostate. Most of in-vitro studies are in favor of the impact of vitamin D on prevention of cancer cell proliferation, and healthy nutritional habits including sea foods and Omega 6 intake may prevent from breast, colon and prostatic cancer; but nutritional habits are more relevant and clinical evidence for Vitamin D supplementation for cancer patients is weak, yet controversy has not been resolved, except for elderly patients with bone metastasis who previously were on vitamin D due to osteoporosis.

Biography

Mahdi Shahriari has obtained a Diploma from north of Iran and then in 1978 he entered Shiraz University of Medical Sciences. After 9 years of training in Medicine (1988), he was accepted as Pediatric Resident then he had practiced 2 years as Pediatrician. From April 1992 till July 1994, he was trained as Pediatric Hematologist-Oncologist and then became a Scientific Member of Shiraz University of Medical Sciences. He has more than 50 publications in the field of Hemostasis, Anemia and Pediatric Oncology. At present, he is Member of Board Certification of Pediatric Hematology - Oncology of Iran.

shahryar@sums.ac.ir

Notes: