SKIN CANCER (OTHER THAN MELANOMA)

VITAMIN D DEFICIENCY IN PATIENT WITH NON-MELANOMA SKIN CANCER AND MELANOMA: A CASE-CONTROL STUDY

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Background: Vitamin D inhibits keratinocyte growth and promotes differentiation factors that are important for skin cancer prevention. Some epidemiologic studies have shown that lower levels of plasma 25-hydroxyvitamin D are correlated with skin cancer including basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma with conflicting results.

Objective: To gain further insight into the relationship between plasma 25-hydroxyvitamin D levels and skin cancers in Korean population.

Materials and Methods: A total of 185 patients with skin cancer (107 patients with BCC, 64 patients with SCC and 14 patients with melanoma) and 142 age- and gender-matched community controls were included in the study. Plasma 25-hydroxyvitamin D levels were used to measure serum vitamin D levels.

Results: Levels of mean plasma 25-hydroxyvitamin D were significantly lower in patients with BCC (mean (SD) ng/mL, 19.64 (8.4), P<0.001), SCC (21.7 (10.4), P<0.001) and melanoma (19.82 (8.7), P<0.001) compared with the control group (47.44 (15.73)). The mean plasma 25-hydroxyvitamin D levels in skin cancer group (20.37 (9.1)) were also significantly lower than control group (47.44 (15.73), P<0.001).

Conclusions: Our study showed mean plasma 25-hydroxyvitamin D levels in skin cancer group is very lower than healthy control in Korean population. A multicenter study with a larger sample size is recommended.