

Investigation of the possible correlation between vitamin D deficiency and chronic plaque psoriasis

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Psoriasis is a chronic autoimmune inflammatory skin and joint disorder in which environmental, and behavioral influences are involved and has a prevalence of 2-3% worldwide. Vitamin D plays an important role as a regulator of the immune system by acting on CD4+ T lymphocytes as well as on the production and action of several cytokines. Since there is compelling evidence that vitamin D functions in the establishment and/or maintenance of immunological self-tolerance, it was of interest to us to study the relationship between vitamin D and chronic plaque psoriasis. After getting IRB approval from the College of Medicine Ethical Committee, twenty eight (11 males and 17 females) and corresponding matching controls (18 males and 19 females) who consented were enrolled. The cases were examined clinically for severity of psoriasis. Serum levels of vitamin D, parathyroid hormone (PTH), calcium and phosphate were estimated for both cases and controls. There was no significant correlation between psoriasis severity and calcium or phosphate levels as compared to control patients who do not have the disease (Pearson's coefficient : 0.21, 0.17 respectively). On the other there was a decline in PTH levels, in comparison to control patients, but it was nearly significant. However, there was a significant correlation between psoriasis and serum vitamin D levels ($P < 0.001$). The present study shows a significant negative correlation between vitamin D serum levels and psoriasis in our patients.

Biography

Ali Mustafa has obtained his Ph.D. at the age of 29 years from Southampton University in England and did his postdoctoral studies in the same University. He was the chairman of the Basic Sciences department at College of Medicine in King Fahad Medical City for more than 4 years. He has published more than 70 papers in highly-reputable peer-reviewed journals and has been serving as an editorial board member of some scientific journals.

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