VITAMIN D DEFICIENCY IN CHILDREN LIVING IN JEDDAH, SAUDI ARABIA

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Background: Vitamin D deficiency is an unrecognized epidemic and a common health problem worldwide.

Methods: This study was conducted in the pediatric clinic in Jeddah Clinic Hospital-Kandarah from April through December 2010 . 510 healthy children aged 4 to15 years old were enrolled. Serum 25-hydroxyvitamin D (25-OHD) wasmeasured. Dietary vitamin D intake, duration of daily sunlight exposure were determined. 25-OHD levels < 20 ng/mL and < 7 ng/mL were defined as relative and severe vitamin D deficiency, respectively.

Results: The mean concentration of 25(OH)D was 13.07±7.81 ng/mL

70 subjects (13.72%) had normal 25(OH)D level . 300 (58.82%) had relative 25(OH)D deficiency and 140 (27.45%) had severe deficiency *(P=0.000)*. 220 (43.14%) were males and 290(56.86%) were females having a statistical significant difference in the incidence of 25(OH)D deficiency *(P=0.019)*. Saudis and Yemenis were more subjected to 25(OH)D deficiency in comparison to Egyptians and other nationalities *(P=0.01)*. there were significant inverse correlations between 25-hydroxyvitamin D levels and both body weight and height *(P=0.000)*. There was a significant correlation between bony aches and 25(OH)D deficiency *(P=0.000)*. Duration of sunlight exposure and daily intake of vitamin D had significant effects on serum level of vitamin D.

Conclusions: A high prevalence of vitamin D deficiency in children living in Jeddah was observed in this study. Routine screening for vitamin D status should be done for all children. Further studies including larger number of subjects are recommended for proper evaluation and management of this problem.