

ESTIMATION OF VITAMIN D IN HYPOTHYROID FEMALES OF DIFFERENT AGE GROUPS AND ITS CORRELATION WITH TSH

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ABSTRACT

Background- Hypothyroidism and vitamin D deficiency are common worldwide. Vitamin D is not simply a vitamin but also a steroidal hormone, which acts through nuclear receptors. Hypothyroidism may be caused by immune or non-immune causes, Autoimmune thyroiditis being the most common cause.

The aim of the study is to estimate the levels of vitamin D in the hypothyroid females of different age groups so as to establish a correlation between TSH and Vitamin D. Method: The study was conducted in Govt. Medical College, Kota and attached group of hospitals. Duration of study is from January 2015 to July 2015.. A total of 65 hypothyroid females age group between 25-65 years, presenting with overt hypothyroidism(TSH>20) were included in the study. Levels of Vitamin D and Thyroid Stimulating Hormone(TSH) was measured by chemiluminescence in Hormonal Assay Lab, Department of Biochemistry, Govt. Medical College, Kota. Result: Statistical Analysis was done by Microsoft Excel. Mean \pm SD of Vitamin D and TSH were calculated in all cases. The results were compared by One Way ANOVA and the significant negative correlation between TSH and Vitamin D was found by Pearson's correlation ($r = -0.49$). P value was < 0.05 , which is highly significant. Conclusion: We found that vitamin D deficiency is prevalent in hypothyroidism, showing its increased probability as the age advances. There is an inverse association between Vitamin D and TSH.

KEYWORDS: Hypothyroidism, Menopause, TSH (Thyroid Stimulating Hormone), Vitamin D, VDR (Vitamin D Receptor)