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A STUDY ON SUBCLINICAL HYPOTHYROIDISM AND ASSOCIATION WITH VITAMIN D IN ETHNIC POPULATION OF KASHMIR INDIA

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Background: Subclinical hypothyroidism is defined as elevated serum TSH levels with normal levels of T3 and T4 hormones. Vitamin D is an important vitamin that not only regulates calcium, but also has many other beneficial actions like immune modulator. The aim of study is to find the relationship between Subclinical hypothyroidism and vitamin D levels in ethnic population of Kashmir, India.

Subjects and Methods: Thyroid hormones (FT3, FT4, TSH, T3, T4, Anti thyroid peroxidases) and vitamin D (25-OH) levels were measured in 80 patients with Subclinical hypothyroidism and 70 healthy subjects, by Chemiluminisence method on Abbott USA I 1000SR Automatic immunoassay analyzer in Department of Biochemistry, Govt Medical College, Srinagar.. Vitamin D deficiency was designated at levels lower than 30 ng/ml. Calcium levels were also evaluated in all participants on biochemistry analyzer Abbott USA c4000.

Results: Serum 25(OH) vit D was significantly lower in Subclinical hypothyroid patients than in healthy controls ($F=27.7$, $P<0.0001$). Its level was significantly decreased in females than male patients ($t=1.2$, $P<0.05$). Calcium levels was also a significant decrease in subclinical hypothyroid patients when compared to controls ($t=1.5$, $P<0.05$).

Conclusion: On the basis of present study in mountainous valley of Kashmir subclinical hypothyroid patients are suffered from hypovitaminosis D and hypocalcaemia that is significantly associated with the degree and severity of the Subclinical hypothyroidism. Thus we suggest that patients are to be encouraged for vit D supplementation and we recommend that the mass screening for Vitamin D, Thyroid hormone profile and serum calcium levels in this ethnic population of Kashmir.

Keywords: Vit D deficiency, Blood calcium levels, subclinical hypothyroidism, Kashmir.

Biography

Haamid Bashir is pursuing Doctorate (PhD) in Biological Science from University of Kashmir, Hazratbal Srinagar through Research centre Department of Biochemistry, Government Medical College Srinagar. Haamid has published more than 15PubMed indexed publications in reputed national and international journals. One of publication is published in European cancer and prevention journal (impact factor 3.5). Haamid has expertise in molecular genetics and epigenetics in cancer biology, Thyroid, Diabetes, Metabolic syndrome. Haamid has attended many national conferences and workshops. Haamid has been associated with number of scientific journals.

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