

Prevalence and Pattern of Thyroid Dysfunction among the tribal population of Kashmir valley

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Introduction: There is scarce data on the incidence & prevalence of thyroid disorders in the tribal population of India. Some small studies among this section of population has depicted higher incidence of hypothyroidism than general population. There has been no attempt at estimating the burden of thyroid diseases among the tribals that comprise 10.9 per cent of population in the state of Jammu & Kashmir.

Objectives: To estimate the prevalence of thyroid dysfunction among tribal population of Kashmir valley and to estimate the urinary iodine concentration (UIC) and auto-antibody (Anti-TPOAb) among these people.

Methods: In a cross-sectional study tribal men and women in the age group of 5 years to 90 years were screened for thyroid dysfunction, antibody status and urinary iodine using health camps in the areas that are inhabited by this section of population. After written consent demographic and anthropometric data was obtained. Samples were collected for biochemistry, thyroid hormones, TPO-antibody and urinary iodine.

Results: The prevalence of subclinical hypothyroidism was 28.9 per cent (15.2 % men and 16.4 % women). The prevalence of overt hypothyroidism was 6.8 per cent (3.6 % men and 3.9 % women). The prevalence of autoimmunity (positivity anti-TPO Ab) was 17.1 % (8.2 % men, and 8.9% women). The mean urinary iodine was 191.25 µg/l in men and 178.86 µg/l in women. 25.7 percent subjects had UIC < 100 µg/l with 27 percent having UIC of 100-200 µg/l and 47.3 percent having > 200 µg/l.

Discussion: There is high prevalence of subclinical hypothyroidism in the tribal population of Kashmir valley although the prevalence of overt hypothyroidism is comparable to general population. This high prevalence of subclinical hypothyroidism may in part be the result high autoimmunity in this section of Kashmiri population which may be partly a result of high iodine intake as shown by there high UIC. Many factors may be responsible for this high iodine intake which include overestimation of iodine loss in transport from source hence delivering high iodine to consumer, high salt intake than general Kashmiri people because of cultural differences in food habits and unknown factors.