

## **Goiter Survey in School Children in Kupwara (Kashmir Valley)**

Endemic goiter is a dreadful nutritional disease, which not only causes general debility, retardation in physical growth but epidemiologically may be associated with endemic cretinism, deaf-mutism and mental deficiency which varies in degree according to the severity of iodine deficiency and how early in life it occurs, being worst if it occurs during fetal development(1). Endemic iodine deficiency goiter is a major public health problem in many areas of the world, despite the fact that provision of iodine in virtually any form is effective in correcting dietary iodine deficiency and in preventing the goiter that develops as a consequence(2).

Iodine deficiency in children is characteristically associated with goiter. The measurement of goiter in school children is important for public health considerations as this group effectively reflects the current status of iodine deficiency disorders in the general population. We examined 712 school children aged 5-15 years (538 boys and

174 girls) spread over 14 villages of border tehsil of Kupwara (Kashmir valley) between 1993-94. School children were examined and thyromegaly graded as recommended(3). The overall goitre prevalence was 44.24%. Students from 2 villages, viz., Dragmulla and Kupwara proper had a goiter prevalence of 69.23% and 77.36%, respectively. Boys had a goiter prevalence of 47.40% while girls had a goiter prevalence of 34.49%. The male preponderance was statistically significant in all grades (*Table I*). Ten urine samples randomly collected were analyzed for iodine content(4). The mean urinary iodine excretion was  $52.39 \pm 1.90$  micrograms per gram of creatinine (range 27.52-75.5). The study thus indicates the presence of significant iodine deficiency state in this area.

An estimated 435 million people live in seriously iodine deficient regions of the Asian continent. It is estimated that around 300 million people live in iodine deficient areas in India and of them nearly 60 million are goitrous (1). According to a survey conducted by Goiter Control Programme launched by the Government of India, the average prevalence rate of goiter in the Himalayan and sub-Himalayan regions of the northern states is 29% for the entire belt while the prevalence of goiter among school going children varies from 55% to nearly 100%(5).

**TABLE I—Goiter Prevalence**

Sex	Total No. studied	OB No (%)	I No (%)	II No (%)	Total No (%)
Males	538	92 (17.10)	125 (23.24)	38 (7.06)	255 (47.40)
Females	174	17 (9.77)	29 (16.67)	14 (8.05)	60 (34.49)
Total	712	109 (15.31)	154 (21.63)	52 (7.30)	315 (44.24)

p <0.01.

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