

disease. Similar alterations and an inverse relationship between zinc and copper levels have been previously observed in childhood leukaemia and lymphoma where they have been used to monitor the disease severity and relapse [7]. Increased uptake of zinc from serum because of increased metabolism has been suggested as a possible mechanism for low zinc levels [8]. Similar mechanisms may be operative in patients with aplastic anemia but needs more investigation. This is a new area of research and there are no other studies to make a comparative analysis of our results. Correlation with treatment outcome would be an interesting application of this study.

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Nutritional Status of Tripuri Tribal Adolescent Boys of West Tripura District

This cross-sectional study assesses the growth and nutritional status of 623 rural and urban Tripuri tribal adolescent boys (aged 8 to 15 years) from West Tripura district. Prevalence of stunting, thinness and overweight were observed 7.6%, 17.81% and 6.03% for urban and 27.9%, 38.37% and 0.39% respectively for rural boys.

Key words: *Nutritional status, Rural-urban, Tripuri tribe.*

Assessing the growth and nutritional status of children and adolescents is an essential part of monitoring the health of a population or a community [1]. Few studies [2,3] on tribal children have been published from the northeastern part of India. The Tripuri tribe constitutes more than half of all the 19 tribes found in the state of Tripura and about 16% of total state population. The present study was undertaken to assess and compare the growth and nutritional status of Tripuri tribal adolescent boys (aged 8-15 years) from rural and urban areas of West Tripura district.

This cross-sectional comparative study was conducted in selected public schools in rural and urban localities of West Tripura district. Data were collected from volunteers (258 rural and 365 urban Tripuri tribal boys, aged 8 to 15 years), using random sampling method. The socioeconomic status of each subject was assessed by modified Kuppuswamy's scale. Data were collected after obtaining assent from each subject. The study was carried out in accordance with the revised ethical guidelines for human experimentation of Helsinki Declaration of 2000 [4]. Standing height (cm) and the weight (kg) was measured following standard recommendations [5], and body mass index (BMI) was also calculated. The age of each subject was recorded from school register and cross-checked from birth certificates. Indices of undernutrition such as stunting, thinness and overweight were calculated according to the classification of World Health Organization (WHO) [6], using the 2007 WHO growth reference data for 5-19 years [7].

All the rural Tripuri tribal boys belonged to the lower socio-economic class whereas urban boys belonged to the upper middle socio-economic class. The overall prevalence of stunting, thinness and overweight were observed 7.7%, 17.8% and 6%, respectively for urban boys and 27.9%, 38.4%, and 0.39%, respectively for rural

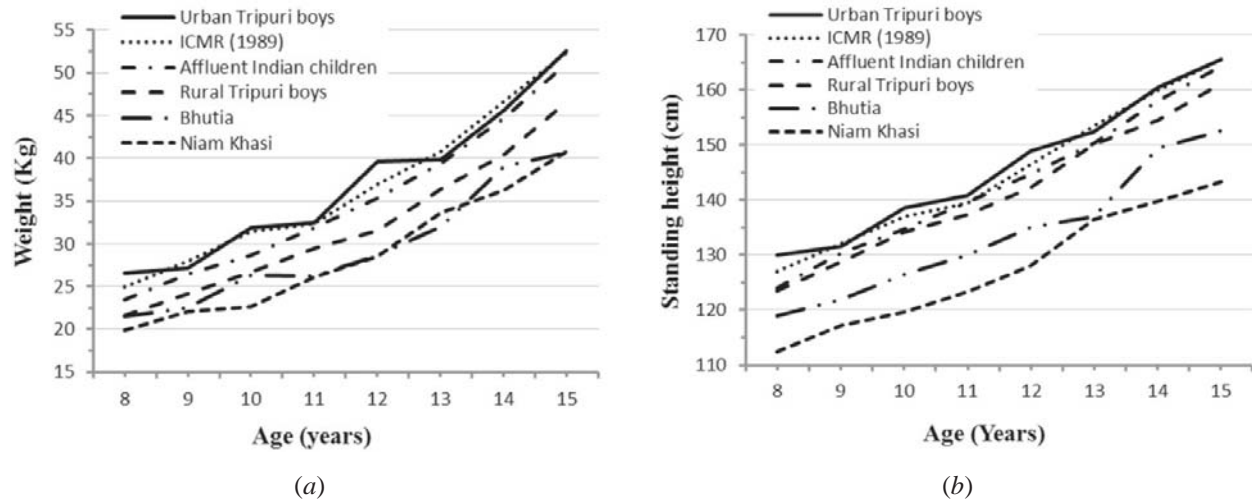


FIG. 1 Plots representing the comparison of (a) mean weight (kg) and (b) mean standing height (cm) of rural and urban Tripuri tribal boys (aged 8 to 15 years) of west Tripura district with other studies.

boys. Stunting and thinness were more prevalent in rural boys compared to urban boys, whereas prevalence of overweight was more in urban boys. Occurrence of stunting and thinness were more in adolescent age (10 to 14 years) in rural boys. **Figure 1** represents the comparison of mean values of weight and standing height of Tripuri tribal boys with Indian Council of Medical Research (ICMR) data [8], affluent Indian children data [9] and the data available on urban Niam Khasi of Meghalaya [2] and Bhutia of Sikkim [3]. The age specific mean values for weight and height of rural and urban Tripuri boys were above the respective values for Niam Khasi boys and Bhutia boys. The urban Tripuri boys were close to the ICMR reference data and were above the affluent Indian children data, but the rural Tripuri boys were below the both references. Urban Tripuri tribal boys were heavier and taller than the rural boys. This rural-urban difference may be accounted for the different socio-economic background they belong to, as also mentioned in literature [1,10].

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