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## Assessment of Nutritional Status of Rural Tribal Children in Tripura

This cross-sectional study evaluated the nutritional status of 608 rural tribal children (age 6 to 15 years) from Jampuijala block of West Tripura district, India. Prevalence of stunting, thinness and overweight were 23.7%, 33.4% and 0.8%, respectively. The prevalence of stunting and thinness was found to be higher in boys than in girls.

**Key words:** *Growth, Tribal, Undernutrition.*

Undernutrition is an important public health issue, especially among the tribal populations in India [1]. Anthropometry is a widely accepted tool for assessing the nutritional status in children and adolescents [2,3]. Very few studies on nutritional status of children have been reported from the tribal populations of northeast India [3-5]. Tripura, the second smallest state of northeast India, consists of nineteen classified tribal populations. The *Tripuri* is the numerically major tribal population of Tripura, and physically they exhibit mongoloid features [6]. In the present study, nutritional status of 6-15 years old children in rural Tripura was assessed.

The subjects for the present cross-sectional study were selected from the schools of *Jampuijala* block of West Tripura district. The cluster random sampling method was followed for selecting the subjects. Schools were randomly selected, and all the students of eligible age were included in the study. A total of 608 Tripuri school children (306 boys and 302 girls) aged 6 to 15 years were studied. All children were from low socio-economic status. Age of each subject was verified from school records. Data were collected after obtaining the necessary approval from the school authorities and written consent was obtained from each subject. The protocol and procedure employed was in accordance with the Helsinki Declaration of 1964, as revised in 2004 [6]. Height and weight of each child were measured using standard techniques [7] and body mass index (BMI) was calculated. The indices of under nutrition such as stunting, thinness and overweight were calculated according to the classification of World Health Organization [2], using the 2007 WHO growth reference data for 5-19 years [8].

The peak height velocity was between 12-13 years for boys, and between 9-10 years for girls. Prevalence of stunting, thinness and overweight of rural Tripuri children is represented in **Table I**. The overall (sex and age combined) prevalence of stunting, thinness and overweight were 23.7%, 33.4%, and 0.8%, respectively. The prevalence of stunting and thinness were higher in boys than that in girls. With the advancement of age (10 years onwards), decreasing trend of thinness was observed among girls. The results of this study are contrary to the

**TABLE I** NUTRITIONAL STATUS OF RURAL TRIPURI CHILDREN OF JAMPUIJALA, TRIPURA

Age (years)	Stunting (Height <3rd percentile)		Thinness (BMI <5th percentile)		Overweight (BMI ≥85th percentile)	
	Boys <i>n</i> (%)	Girls <i>n</i> (%)	Boys <i>n</i> (%)	Girls <i>n</i> (%)	Boys <i>n</i> (%)	Girls <i>n</i> (%)
6	10 (38.5)*	3 (13.0)	8 (30.8)	10 (43.5)	0	0
7	6 (27.3)	6 (15.8)	10 (45.4)	22 (57.9)	0	0
8	10 (27.3)	4 (13.8)	16 (44.4)	9 (31.0)	0	0
9	3 (13.0)	6 (25.0)	8 (34.8)	8 (33.3)	0	0
10	8 (25.0)	0	16 (50.0)	5 (25.0)	0	1 (5.0)
11	8 (28.6)	3 (10.34)	12 (42.9)	9 (31.0)	1 (3.6)	0
12	11 (33.3)	8 (20.0)	14 (42.4)	10 (25.0)	0	1 (2.5)
13	13 (36.1)	9 (36.0)	15 (41.76)	4 (16.0)	0	1 (4.0)
14	15 (41.7)	07 (21.9)	14 (38.9)	4 (12.5)	0	1 (3.13)
15	4 (11.8)	10 (23.8)	4 (11.8)	5 (12.)	0	0
All ( <i>n</i> =608)	88 (28.8)	56 (18.5)	117 (38.2)	86 (28.5)	1 (0.3)	4 (1.3)

common belief that Indian girls are at a nutritional disadvantage compared to boys, and the results also indicate that the nutritional status of rural *Tripuri* tribal children is better than that of other tribal children of northeast India as reported in earlier studies [3-5].

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