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Prevalence of vitamin B12 and folate deficiency in school age children residing at high altitude regions in India

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Background: Vitamin B12 and folate deficiency is associated with poor cognitive function and anemia amongst school age children. High prevalence of vitamin B12 and folate deficiency have been earlier reported amongst school age children in plain regions of India. The present study was conducted to assess the prevalence of Vitamin B12 and folate deficiencies among children residing at high altitude regions of Himachal Pradesh, India.

Material & Methods: A total of 215 schoolchildren in the age group of 6-18 years were included. Biochemical estimation of serum vitamin B12 and folate levels was undertaken using chemiluminescence immunoassay method. The consumption pattern of foods high in dietary vitamin B12 and folate was recorded using Food Frequency Questionnaire.

Results: The median levels (interquartile range) of serum vitamin B12 were 326 (259-395)pg/mL and 7.7 (6-10) ng/mL of folate. We found that the prevalence of vitamin B12 and folate deficiency amongst school age children was 7.4% and 1.5% respectively. This was possibly due to high frequency of consumption of foods rich in vitamin B12 and folate.

Conclusion: The findings of the present study revealed low prevalence of vitamin B12 and folate deficiencies amongst children aged 6-18 years living at high altitude regions in India. This was possibly due to high frequency of consumption of foods rich in vitamin B12 and folate. Hence dietary interventions including promotion of regular consumption of foods with high vitamin B12 and folate may be seen as a potential strategy for improving vitamin status of the population.

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Anthropometric study on children between 3 and 5 years old of a private school in Costa Rica according to WHO reference

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Introduction: About nutrition of the population, the trend shows a decrease in the proportion of malnourished children and adults, and an increase in the proportion of overweight or obese adults and children. According to Costa Rican data from the 2008-2009 National Survey it was reported that 8.1% preschool were overweight (women 7.9% and men 8.3%).

Objectives: Through a cross-sectional study, the nutritional status of preschoolers 3 to 5 years was explored according to the WHO reference. The subjects were 82 children enrolled in a private school in the capital; the school offers a comprehensive nutrition service.

Results: According to the size indicator for age, there is a growth retardation of 2.9% at the preschool and the risk of overweight is 20.3; overweight and obesity is 5.8 and 3.6 percent respectively.

Discussion: Exploration of nutritional status between three and four years old can shift the risk of overweight in order to prevent or detect early obesity and reduce the risk of common chronic non communicable diseases such as hypertension and diabetes.

Conclusions: The results showed the benefits of screening for obesity in children between 3 and 5 years using BMI for age as indicator

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