

Micronutrient deficiency and burden of anaemia: a study among tribal population of Rajasthan, India

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Objective: To assess the role of micronutrient (i.e. folate and vitamin B12) deficiency in the causation of anaemia in tribal population of Rajasthan .

Design: Cross-sectional study. Complete Blood Count was done by using Sysmex-KX 21. Homocysteine, vitamin B12 and folate levels were measured by chemiluminescence by using Immulite-1000. Anaemia status was categorised on the basis of Haemoglobin (Hb) and mean corpuscular volume (MCV) level.

Setting: The present study was conducted among the Bhil tribe settled in Rajasthan as well as in Delhi. .

Subjects: Subjects comprised apparently healthy adult individuals of either sex from the age group ≥ 25 to ≤ 65 years.

Results: Prevalence of anaemia, vitamin B12 deficiency and folate deficiency was found to be 65%, 61.75% and 35% respectively in the studied population group. Mild anaemia (34%) was found to be higher as compare to the moderate (24.5%) and severe anemia (5%). Individuals with macrocytic, microcytic and normocytic anaemia showed high prevalence of micronutrient deficiency i.e. vitamin B12.

Conclusions: High prevalence of hyperhomocysteinemia along with the micronutrient deficiency of vitamin B 12 and folate among anaemic individuals indicates towards the co-existence of iron and vitamin B12 deficiency in the studied population. The results of the present study hint towards an immediate attention towards the need for awareness regarding dietary sources of micronutrients along with their supplementation among vegetarian populations.

Biography

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