

Impact of Consumption of Certain Electrolyte Rich Natural Products on the Serum Na⁺ and K⁺ Profile, Anemia and Iodine Nutriture in Desert Population of Rajasthan

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ABSTRACT To observe the impact of supplementation of some electrolyte rich natural products on the Serum Na⁺ and K⁺ profile, anemia and iodine nutriture in desert population. Double blind randomized controlled trial conducted to test the efficacy of two natural products, that is, Tender Coconut Water and Ash Gourd juice separately. A total of 390 adults (15-45 years) were registered and categorized into three groups for supplementation of these products and examined serum Na⁺ and K⁺, hemoglobin, Urinary Iodine, morbidities. A significant increase in serum K⁺ was observed 65.0 and 61.6 percent in case of tender coconut water and ash gourd juice respectively as both products have rich natural source of potassium (P< 0.05). The increase in case of serum Na was recorded 53.4 and 48.8 percent, in tender coconut water and ash gourd respectively. The supplementation of these electrolyte products exhibited positive effect on mineral profile, that is, serum K⁺ and serum Na⁺, along with iodine nutriture, and general health profile especially gastritis and muscle weakness in rural adults. The supplementation also improved haemoglobin levels and declined anemia significantly. The electrolyte rich natural products can also be included, in the current national programs which will be helpful to health functionaries in designing operational pack rations for army *jawan* and residents of desert area.