

Abstract

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Vitamin A status in children with pneumonia.

Velasquez-Melendez G, Okani ET, Kiertsman B, Roncada MJ.

Departamento de Nutrição, Faculdade de Saúde Pública da Universidade de São Paulo, Brasil.

OBJECTIVE: To assess vitamin A status in children with pneumonia.

INTERVENTIONS: Thirty-four hospitalised patients with pneumonia were randomly allocated into two groups: the study group, besides the routine treatment, received a high dose of aqueous retinyl palmitate oral solution; the control group received only the routine treatment.

METHODS: The concentrations of plasma vitamin A and carotenoids were determined by colorimetric method. Retinol binding protein (RBP) was determined by the radial immunodiffusion technique.

RESULTS: After 1 week of treatment there was a statistically significant ($P < 0.05$) increase in the levels (mean $\pm$ s.e.) of vitamin A (study group: 14.1 ± 1.6 to 26.5 ± 5.8 micrograms/dl; control group: 16.1 ± 3.3 to 24.1 ± 2.3 micrograms/dl) and RBP (study group: 0.8 ± 0.2 to 2.2 ± 0.6 mg/dl; control group: 0.6 ± 0.2 to 3.0 ± 0.5 mg/dl) in both groups as compared to the baseline. On day 7 of treatment when the average levels of vitamin A (26.5 ± 5.8 and 24.1 ± 2.3 micrograms/dl) were compared, there was no statistically significant difference between the groups.

CONCLUSION: This study suggests that low levels of circulating plasma vitamin A in child with pneumonia may be a consequence of acute phase of infectious disease.

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