

VITAMIN A TRANSPORT IN SEVERE PROTEIN MALNUTRITION. Guillermo Arroyave, Dorothy Wilson, Héctor Castellanos, Nevin S. Scrimshaw. Institute of Nutrition of Central America and Panama (INCAP), Guatemala, C. A.

Children recovering from kwashiorkor may show a marked increase in vitamin A serum levels during the first 1-2 weeks of treatment even when receiving a diet without vitamin A based on skim milk. This occurs only when the hepatic tissue of the patients contains vitamin A reserves initially. The vitamin increase parallels the increase in serum protein and albumin concentration in such a way that, under these conditions, a good correlation is found between serum vitamin A and proteins ($r=0.917$, d.f.=19). Friend, C. J. et al (Proc. Nutrition Soc. 19: XXXIV, 1960) have shown a similar type of relationship in protein malnourished pigs. We find that in rats with a marked decrease in serum proteins and albumin produced by experimental protein deficiency and/or adrenalectomy and reversed by cortisone treatment, a good correlation is also observed between vitamin A and albumin in the serum ($r=0.746$, d.f.=30). The results are further evidence of impairment of vitamin A transport in severe protein deficiency as a consequence of the marked lowering of the plasma protein carrier of the vitamin which is associated with the albumin fraction of the serum proteins. (Supported by grant A981 from the National Institutes of Health and by the Nutrition Foundation, Inc.)

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