Phagocytosis and immunoglobulin levels in hypocupremic infants

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Nineteen hypocupremic marasmic infants 5-14 months of age with a normal wt/1gth ratio, were immunologically evaluated during their rehabilitation. The infants were studied 2-3 months after admission to a Closed Nutritional Recovery Center and subsequently after copper supplementation. Two groups were defined: a severely copper deficient group (A), with abnormal copper and ceruloplasmin levels; and a marginal copper deficient group (B), with abnormal plasma copper level and normal serum ceruloplasmin. Immunoglobulin levels were measured by radial immunodiffusion technique and phagocytosis to S. aureus by using autologous and normal homogogous plasma. After copper supplementation plasma copper increased to normal values in both groups of infants. Ceruloplasmin exceeded normal ranges in group A whereas no changes were detected in group B. Serum immunoglobulins were normal and secretory IgA remained low in most of the infants. Phagocytic indices increased in most infants with both types of