SECRETORY IMMUNOGLOBULIN A IN VITAMIN A DEFICIENT CHILDREN

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The impairment of the immune mechanisms in protein energy deficiency (PED) is well documented. Previous investigators, observed a selective impairment of the secretory immune system (as evaluated by the level of secretory IgA in saliva) in children with vitamin A deficiency. As these children also suffered from associated PED it was not possible to attribute the decreased levels of SIgA to vitamin A deficiency.

We report a study of 89 children attending a malnutrition clinic. The children were sub-divided into four groups based on weight deficit from age' sex and height-matched 'Normals' as given by de Mel (1977).

GROUP I : Children of 'Normal' weight, without clinical signs of PED (49 Children).

GROUP II : Children of 'Normal' weight, without, PED but with vitamin A deficiency (17 children).

GROUP III : Children with a percentage weight deficit of 10-30% of the normals, with PED, but without vitamin A deficiency (24 children).

GROUP IV : Children with a percentage weight deficit of 10-30% of the normals, with PED and vitamin A deficiency (9 children).

The children in Group I served as the control group. They were of similar socio-economic status as the other groups. The nature and severity of associated disease were similar.

The level of salivary SLgA, as determined by single radial immunodiffusion, in group II was significantly lower than the control group ($P=0.001$), but comparable to groups III and IV.

The results of the present investigation, while confirming earlier reports on lower levels of SIgA in children with vitamin A deficiency associated with PED, clearly demonstrates an association between SIgA levels in saliva and vitamin A deficiency, in the absence of PED.

References

de Mel B.V. (1977). Proceedings of the Annual Sessions of the Sri Lanka Paediatric Association.