NUTRITIONAL BLINDNESS IN DEVELOPING COUNTRIES

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Of the world's estimated forty two million blind population, ninety percent live in the Southern countries. The first community-based assessment of the incidence of corneal xerophthalmia was completed in Indonesia. This led to an extrapolation of between 200 000 and 400 000 corneal and 4 -8 million xerophthalmia cases annually for Asia. In the early 1980's, the WHO (World Health Organization) undertook a global 10 year programme for control of vitamin A deficiency. The assessment identified several African countries as having a public health problem of vitamin A deficiency due to the trap of deprivation.

A meta-analysis on the series of community-based controlled intervention trials convincingly demonstrated a reduced risk of mortality through correcting vitamin A deficiency among pre-schoolers, even among those who did not have signs or symptoms. The global breakdown of vitamin A deficiency by degree of severity reveals that 22 % of the WHO Member States still have a clinically significant problem and 25 % have a sub-clinical problem.

This book contains contributions to the International Symposium on Nutritional Blindness in Developing Countries held in Basel, Switzerland in June 1996. The first chapter covers malnutrition as a global problem with specific attention to vitamin A deficiency. Field morbidity and mortality studies are being discussed. This includes vitamin A deficiency and growth, maternal vitamin A deficiency - impact on the fetus and infant

as well as the consequences of vitamin A deficiency and the impact of vitamin A supplement.

The next chapter gives an overview of recent health and survival research on vitamin A. This includes the chemistry, units and requirements, physiology and mode of action. Clinical vitamin A deficiency (xerophthalmia) is discussed in five stages. Only the first three stages are reversible if vitamin A is given. Depending on the severity of the lesion, once vitamin A is given, eye health is restored within a few days. When maternal malnutrition is prevalent, there is a risk of vitamin A deficiency if the mother is breastfeeding. Clear evidence indicate that vitamin A may play a role in HIV infection.

In the third chapter, the Swiss Red Cross Experience in the fight against Nutritional-related Blindness is discussed. The last chapter discusses primary eye care. The prevention of nutritional blindness in West Africa identified lack of early and appropriate case management, association of vitamin A deficiency with illness episodes such as kwashiorkor and marasmus and harmful eye practices as unfavourable factors in preventing Xerophthalmia. Strategies for the control and prevention of nutritional blindness in the Philippines include periodic oral doses of vitamin A, food fortification and nutritional education. It is highly recommended that the problems of poverty, poor health and inadequate diet be addressed to prevent nutritional blindness and death.

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