

OBSERVATIONS ON SOME COMMON DEFICIENCY DISEASES IN INDIA*

THE incidence of diseases due to faulty nutrition or undernutrition is high in a country like India. With the advent of the newer knowledge in the field of nutrition, several conditions which had remained obscure before were traced to deficiency in the diet. Dr. Rao had the opportunity of studying deficiency diseases during the last 15 years and the observations made are based on his personal experience. He has discussed briefly some of the clinical entities associated with malnutrition, viz., cutaneous manifestations in deficiency disease, nutritional diarrhoea, hypoproteinaemia, cirrhosis of the liver, and tropical ulcer (Naga sore).

Dealing with cutaneous manifestations in deficiency disease the author summarises that the histological findings in phrynodermia namely, the primary non-inflammatory hyper-keratosis of epithelium, the involvement of the cutaneous glands and hair and the absence of vascular changes or hæmorrhages in perifollicular tissues strongly suggests that the condition is a manifestation of nutritional deficiency in which lack of vitamin A is an important factor. Other factors, such as secondary food deficiencies, deficiency of essential fatty acids, the stage of sexual development a familial need for abnormally large amounts of vitamin A, or a racial susceptibility may perhaps influence the development of the lesion.

Cases of chronic diarrhoea of obscure etiology are quite common and no systematic investigation of this condition had been carried out. Dr. Rao has studied experimentally the effects on monkeys of long continued feeding on poor rice diets resembling those consumed by human beings in India and found that a chronic deficiency state was produced in which the dominating clinical sign was diarrhoea. The jejunum and ileum showed varying degree of atrophy. Clinical picture similar to this has been reported in human beings by several observers and

such manifestations were controlled by simple dietetic treatment.

It has been found that a condition of hypoproteinaemia in India is undoubtedly due to the deficient intake of proteins for economic and other reasons. The albumen fraction of the plasma protein is the one significantly disturbed in malnutrition. The deficiency state manifests itself by œdema of the subcutaneous tissues associated with varying degree of anæmia. Such cases were found to improve remarkably with high-protein diet alone.

Regarding cirrhosis of the liver, investigations carried out in South India showed that dietetic deficiency is an important factor in the causation of the disease. Dr. Rao has briefly described the different clinical types of cirrhosis of the liver met with in India and discusses the etiological factors with special reference to nutritional deficiencies. The disease takes a high toll of life among Indian children. Portal cirrhosis is associated with nutritional deficiencies and clinical trials suggest that a richly nutritious diet may have a beneficial effect on the clinical course of the disease, if treatment is instituted early in the decompensated stage.

The last condition which the author draws attention to is 'tropical ulcer' or 'naga sore'. During recent years it has become increasingly evident that malnutrition plays an important part in the rapid spread and delayed healing of the ulcer. Apart from the specific local treatment of the ulcer, the author suggests that attention should be paid to improving the general nutritional state of the patient.

In a country like India where famine and pestilence are frequent and ignorance and superstitions are rife, it is not surprising that incidence of diseases due to faulty nutrition is very high. In his address, Dr. Rao has given an account of some of the common diseases associated with malnutrition, but does not claim that the list given is either complete or exhaustive. He, however, emphasises the fact that prevalence of such diseases illustrates the magnitude of the problem of malnutrition in our country.

N. N. DE,

* Abstract of the Presidential Address delivered by Dr. M. V. Radhakrishna Rao, at the Section of Medical and Veterinary Sciences, 37th Indian Science Congress, Poona, 1950.