

5. The Indian infant mortality rate, the crude mortality rate and the death rate from tuberculosis are many times higher than in the white population. All these conditions present a national problem in health and welfare far in excess of the numerical proportion of the Indian to the white population.

6. In common with the results of studies done in many parts of the world, poor nutrition has been found in a population group with excessively high morbidity and mortality rates.

7. It is not unlikely that many characteristics, such as shiftlessness, indolence, improvidence and inertia, so long regarded as inherent or hereditary traits in the Indians race, may, at the root, be really the manifestations of malnutrition. Furthermore, it is probable that the Indians' great susceptibility to many diseases, paramount among which is tuberculosis, may be attributable among other causes to their high degree of malnutrition arising from lack of proper foods.

ADDENDUM

While this paper was in press the attention of the authors was directed to a monograph "C-Hypovitaminose" by Johns. Hagtvæt, Norway, in which the author found that the average vitamin C food supply in Northern Norway was 5, 10 to 15 mgm. of ascorbic acid daily. He reports the marked prevalence of chronic gingivitis, and states, "This under-feeding with respect to vitamin C seems to have as a regular consequence chronic gingivitis, marginal osteitis and a tendency towards spontaneous bleedings."

REFERENCES

1. KRUSE, H. D.: Medical evaluation of nutritional status. IV. Ocular manifestations of avitaminosis A, with especial consideration of the detection of early changes by biomicroscopy, *Milbank Memorial Fund Quart.*, 19; 207, 1941.
2. KRUSE, H. D., SYDENSTRICKER, V. P., SEBRELL, W. H. AND CLECKLEY, H. M.: Ocular manifestations of ariboflavinosis, *Public Health Reports*, 55: 157, 1940. (Reprint No. 2135).
3. SYDENSTRICKER, V. P., SEBRELL, W. H., CLECKLEY, H. M. AND KRUSE, H. D.: Ocular manifestations of ariboflavinosis, *J. Am. M. Ass.*, 114: 2437, 1940.
4. KRUSE, H. D.: Gingival manifestations of avitaminosis C, with especial consideration of the detection of early changes by biomicroscopy, *Milbank Memorial Fund Quart.*, 22: 290, 1942.
5. *Idem*: The lingual manifestations of aniacinosis, with especial consideration of the detection of early changes by biomicroscopy, *Milbank Memorial Fund Quart.*, 22: 262, 1942.
6. *Idem*: A concept of the deficiency states, *Milbank Memorial Fund Quart.*, 22: 245, 1942.
7. KRUSE, H. D. AND TISDALE, F. F.: Nutrition in Industry, *Proc. 20th Annual Conference Milbank Memorial Fund*, New York, p. 35, May 7, 1942.
8. SHAW, J. H., PHILLIPS, P. H. AND ELVEHJEM, C. A.: Chronic ascorbic acid deficiencies in the Rhesus monkey, *J. Nutrition*, 29: 365, 1945.
9. LINGHORNE, W. J. *et al.*: The relation of ascorbic acid intake to gingivitis, *Canada. M. A. J.*, 54: 106, 1946.
10. KRUSE, H. D.: Tissue changes that are most useful in clinical evaluation of marginal types of malnutrition, *Proc. Nutrition Foundation*, Research Conference on Relation of Nutrition to Public Health, New York, p. 24, October 11, 1943.
11. RABINOWITCH, I. M.: Clinical and other observations on Canadian Eskimos in the Eastern Arctic, *Canada. M. A. J.*, 34: 487, 1936.

RÉSUMÉ

400 Indiens du nord du Manitoba ont été observés au double point de vue de leurs habitudes alimentaires et de leur état général. Les déficiences vitaminiques sont la règle, notamment, les déficiences en vitamines A, B₂ et C. Les altérations de leurs conjonctives, de leur cornée et de leurs gencives traduisent assez nettement les carences précitées. La mortalité infantile est très élevée, notamment, la mortalité dû à la tuberculose. L'indolence, l'inertie et l'apathie de ces sujets n'est pas un trait racial,—comme on l'a cru trop longtemps,—mais provient plutôt de troubles profonds dûs à une mauvaise alimentation; cette même étiologie est également à la base de leur manque de résistance à l'égard des infections, et plus particulièrement de la tuberculose.

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