

Study of Subcutaneous Fat in Leprosy Patients

TO THE EDITOR:

A. Carayon in a recent paper (1) pointed out the high proportion of serious and contagious forms of leprosy, serious and widespread nerve damage, a very high percentage of serious and bilateral facial paralysis, and the high proportion of an inhabitual type of ulnar palsy at the wrist without nerve damage at the elbow in leprosy patients in Iran. He stated that the cold weather and nutrition are responsible for such epidemiologic and clinical findings.

I also examined many of these patients and fully agree with the concepts of A. Carayon who believes that, "the lipid balance seems to be an active factor to prevent the transmission of leprosy and that malnutrition interferes in the spread of leprosy." He also quoted that, "the various lipid diets in the northern and southern provinces of Iran may explain the differences in the spread of leprosy" and the "hypothesis is advanced that, more than cold, variations in lipid diet in the north and south may explain the high prevalence in the north and the low in the south. Chemical studies of subcutaneous fat of the two groups are necessary to bring scientific proof and this study would be a good goal for the next year's program."

In regards to the last point, i.e., the study of subcutaneous fat, I indicated the importance of this work in many of my publications which I summarized recently (2). In this paper I discussed my concept on the relationship between pathogenesis of leprosy and autooxidation of lipids, peroxidation, antioxidants, tocopherols, unsaturated fatty acids, subcutaneous fat, as well as the biological antioxidant activity of diamino-diphenylsulfone, and the growth of *M. leprae* in animals with prooxidant diets (low in vitamin E and high in unsaturated fatty acids).

In summary, I believe that the study of subcutaneous fat recognized by Carayon and myself should be done in order to complete the study of the pathogenesis of leprosy.

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REFERENCES

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2. BERGEL, M. Leprosy as a metabolic disease. *Fontilles* **113** (1975) 10.