

The Need for Long-Term Follow-Up of Surgical Reconstruction in Leprosy

It is now about a quarter of a century since reconstructive surgery in leprosy first received great emphasis, came into vogue and was widely acclaimed as a major advance in the care of leprosy patients.

In at least some major areas of leprosy endemicity, during this same quarter of a century there has been a marked decline in the incidence of new leprosy cases under the influence of chemotherapy and rising standards of living. Consideration of these trends suggested that in endemic areas where there are reasonably active therapeutic campaigns it can be expected that leprosy may be expected to be a minor problem in 25 to 30 years in-so-far as active new cases are concerned.¹ These conclusions seem to be supported by the computer model studies reported by Lechat *et al.*^{2,3} This assumes, of course, that there does not appear to be a far higher incidence of transmission of drug resistant bacilli than has been evident to date. Some workers have recently been anticipating this latter possibility.^{4,5}

Be this as it may, it is fair to assume that in either case, there will for the foreseeable future be a considerable residuum of leprosy crippling necessitating care and attention. It would be good to have some long-term as-

essment of the results, effectiveness, and durability of reconstructive surgical procedures in leprosy after a generation of experience. We have not found such studies.

There would seem to be particular need for such long-term evaluations in leprosy since it might be expected that the usually irreversible nerve damage and changes in vascular circulatory dynamics might result in ongoing bone changes,⁶ which might modify or vitiate the results of some reconstructive procedures.

Essentially the same holds true for x-ray studies of deformities. Several studies of the pathogenesis of bone changes have been published⁷⁻¹⁴ from which it seems evident that there are progressive changes resulting

¹Skinsnes, O. K. Immuno-epidemiology of leprosy. *Int. J. Lepr.* **43** (1975) 145-148.

²Lechat, M. F., Misson, C. B., Bouckaert, A. and Vellut, C. An epidemiometric model of leprosy: a computer simulation of various control methods with increasing coverage. *Int. J. Lepr.* **45** (1977) 1-8.

³Lechat, M. F. Comments on immuno-epidemiology of leprosy. *Int. J. Lepr.* **45** (1977) 189-190.

⁴Davey, T. F. The wind of change. *Lepr. Rev.* **48** (1977) 1-2.

⁵Meade, T. W. How effective is the treatment of leprosy? *Lepr. Rev.* **48** (1977) 3-8.

⁶Skinsnes, O. K., Sakurai, I. and Aquino, T. I. Pathogenesis of extremity deformity in leprosy. A pathologic study on large sections of amputated extremities in relation to radiological appearances. *Int. J. Lepr.* **40** (1972) 375-388.

⁷Faget, G. H. and Mayoral, A. Bone changes in leprosy: a clinical and roentgenologic study of 505 cases. *Radiology* **42** (1944) 1-13.

⁸Barnetson, J. Osseous changes in neural leprosy. Correlation between histopathological and radiological findings. *Acta Radiol.* **34** (1950) 35-64.

⁹Barnetson, J. Pathogenesis of bone changes in neural leprosy. *Int. J. Lepr.* **19** (1951) 297-307.

¹⁰Basu, S. P., Ghosh, S., Mukerjee, N. and Roy K. P. Angiography in leprosy. *Indian J. Radiol.* **14** (1960) 180-190.

¹¹Paterson, D. E. Bone changes in leprosy. Their incidence, progress, prevention and arrest. *Int. J. Lepr.* **29** (1961) 393-422.

¹²Lechat, M. F. Bone lesions in leprosy. *Int. J. Lepr.* **30** (1962) 125-137.

¹³Murakami, Y. Radiological and histopathological studies on bone changes of feet in leprosy patients. *J. Kumamoto Med. Soc.* **41** (1967) 437-474.

¹⁴Karat, S., Karat, A. B. A. and Foster, R. Radiological changes in the bones of the limbs in leprosy. *Lepr. Rev.* **39** (1968) 147-169.

from neurovascular changes, from pressure atrophy, and from the imbalance following on varied muscle paralysis even in the absence of active leprosy or pyogenic infections.

Roentgenologic, angiographic and functional studies of the extremities of patients 15 to 25 years after similar studies carried out in preparation for reconstructive surgery could be expected to be revealing, valuable and timely. They could include not only subjects of reconstructive surgery but also patients with extremity deformity who have

been bacteriologically negative for many years as a result of chemotherapy.

Surely records and suitable patients for such study must exist in many centers. To our knowledge, for example, the x-ray and other records of Hay Ling Chau in Hong Kong are well cared for by the Hong Kong Government,¹⁵ and when one sits in the outpatient clinics one recognizes not infrequently patients first seen in the early 1950's, some of whom have had the benefit of surgical procedures and are available for comparative functional and roentgenological re-evaluation.

¹⁵News and Notes. Hong Kong. *Int. J. Lepr.* **44** (1976) 391.

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