COMMENT: 'THE ALLOCATION OF LEPROSY PATIENTS INTO PAUCIBACILLARY AND MULTIBACILLARY GROUPS FOR MULTIDRUG THERAPY, TAKING INTO ACCOUNT THE NUMBER OF BODY AREAS AFFECTED BY SKIN, OR SKIN AND NERVE LESIONS'

Sir,

I have read with interest the article entitled: 'The allocation of leprosy patients into paucibacillary and multibacillary groups for multidrug therapy, taking into account the number of body areas affected by skin, or skin and nerve lesions', by W. H. van Brakel *et al.*, Lepr Rev, 1992; **63:** 231–46.

Concerning their comparison of the body area system with the score system I described based on the findings in Ethiopian patients[1] (which was in fact not introduced in Ethiopia), I should like to make the following comments:

—As stated in my article, in the score system only those whose clinical classification was confirmed by skin smear results were included (clinically PB with negative skin smears and clinically MB with positive skin smears).

—In my example of 6 clinical signs, a total score cut-off point of up to 10 for PB classification and more than 10 for MB classification resulted in an over-classification as MB of 10·5% of PB patients and an under-classification as PB of 4·9% of MB patients (table 12 of my article).

—The conclusion that the 4·9% false-negative proportion in the Ethiopian system might have been much higher in reality, if patients had been classified on histological findings instead of skin smears, is incorrect. The correct conclusion is that, if nerve biopsies had been examined, a proportion of those classified as PB would in fact have been MB cases, and hence the proportion of patients over-classified as MB will be less than 10·5%.

—It is clinically debateable whether PB patients with a PB histology picture in the skin should be considered MB cases while the nerve histology reveals a BI compatible with MB leprosy. It has been demonstrated that the BIs in skin and nerve biopsies taken from patients at the same time can vary in possibly 50% of cases.[2,3] The nerves may contain a bacterial density of up to 1000 times that of skin. The significance of this finding for the classification of patients is not known.

It is unfortunate that the system using body areas gives a high proportion of cases over-classified as MB. Findings similar to the 61% over-classification in the BC3 system were observed in Ethiopia using the number of skin lesions. If patients with more than 5 skin lesions are classified as MB, 58% of PB patients will be over-classified.[1] It appears that if a single parameter is used for classification of patients, the specificity is low. With such a considerable MB over-classification, it could be argued that all patients should be treated as MB. In my opinion, for patient related, operational and financial reasons, a system of classification which results in over-classification of more than about 25% of PB patients is not acceptable.

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References

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[2] Ridley DS, Lucas SB. The use of histopathology in leprosy diagnosis and research. *Lepr Rev*, 1989; **60:** 257–62.

[3] Ridley DS, Ridley MJ. Classification of nerves is modified by the delayed recognition of *Mycobacterium leprae*. *Int J Lepr*, 1986; **54:** 596–606.