

## CORRESPONDENCE

*This department is for the publication of informal communications that are of interest because they are informative and stimulating, and for the discussion of controversial matters.*

## Epidemiology of Disability in Leprosy

TO THE EDITOR:

Part 2 of the paper on "Epidemiology of disability in leprosy" by Drs. Srinivasan and Noordeen appearing in the present issue of THE JOURNAL, calls for certain comments, and I would like to take this opportunity to express my views on the matter.

The work on which the conclusions of a possible positive relationship between DDS treatment under "field" conditions and deformities in leprosy is based, was done at the Central Leprosy Teaching and Research Institute, Chingleput, during my tenure as Director of the Institute, from which position I have recently retired. Taking into view the rather unusual and unexpected findings, which were likely to have a far reaching adverse effect on the leprosy control program through mass scale sulfone therapy, I had suggested to the authors to put off the publication to a time when more definite and convincing evidence as to this relationship might be available. However, they were not agreeable to this suggestion, and I approved its publication on two conditions: first, it should be indicated clearly in the paper that the views expressed therein were the personal views of the authors; and second, that I would write a note in the same issue of THE JOURNAL expressing my views on the subject.

I am glad to note that the final version of the paper, which has emerged after consideration of some suggestions from me and others from you, marks a great improvement, since the conclusions are made in more guarded terms. All the same, I think some comments are still called for.

The authors have concluded that their "findings would suggest that treatment for

leprosy given under field conditions could possibly result in increased disability among the patients." It is gratifying, however, to note that they have now taken cognizance of the fact that the available data are inadequate to prove the "cause and effect" relationships between treatment under field conditions and increased incidence of deformity. Thus, they have very wisely stated that "from the available data in the present study it was not possible to 'prove' whether disability followed or preceded treatment." It is exactly from this point of view that I was against the publication of the findings at the present stage, because of the far reaching repercussions they might have, without any justification, on the widely used method of leprosy control through mass scale chemotherapy.

The matter is of such great importance, with such far reaching implications, that publication of the possibility suggested by the authors should have waited till more solid grounds than are provided by the study reported became available to support the view. For obtaining reliable data on the subject, it is essential to carry out a well planned, long term study on patients initially free from deformity. This will provide what the authors call "a longitudinal study giving the sequence of events." Further, it may perhaps be possible to carry out studies on suitable laboratory animals, by feeding them DDS for prolonged periods, and looking for any nerve changes and results thereof.

Apart from the study being a "cross sectional one-time study," it suffers from some other drawbacks. First, the loss of sensation, which is a regular symptom of the disease, has been taken into account for

calculating the incidence of disability and deformity. Second, the study is based on data collected by paramedical workers, the authors of the paper having examined only about 20 per cent of the patients reported on. For reaching such a serious conclusion, one that has far reaching implications, a more careful study carried out by medical personnel is required.

One of the advantages of sulfone treatment of early cases of leprosy is generally believed to be the prevention of deformity. This general belief is based not entirely on impressions. There is some reported evidence on the matter, although the reports are few. Dr. R. V. Wardekar, Director, Gandhi Memorial Leprosy Foundation reported such findings at the VIIth International Congress of Leprology at Tokyo in 1958.<sup>1</sup> In a general survey of 2,340 cases he found the incidence of deformity to be 24 per cent, a figure that is in agreement with those of other workers. In a separate investigation on a follow-up study for two to six years of 2,327 patients without deformity and treated with sulfones, he reported the following findings. Among the 2,327 patients without involvement of the large nerve trunks at the time of starting treatment, deformity developed later in

only 25 (1.0%) cases; among the 602 patients with involvement of large nerve trunks, deformity developed in 36 (6.0%) cases. The figure of 6 per cent may well be compared with the figure of 24 per cent in the general patient population. From these findings Wardekar concluded that practically no deformity developed in the patients detected and put on sulfone treatment in early stages.

In view of the above report, I would like to emphasize again that before cognizance is taken of the possibility that sulfone therapy in the field may induce deformity, there is need for a well planned long term study on the subject. The paper under comment should be considered only as providing a stimulus for a further study of the matter, and the views stated therein should not be seriously taken into account before more solid and convincing evidence is forthcoming to support them. In the meantime mass sulfone therapy, as a means to control the spread of leprosy, should be continued, with unmitigated efforts, on an increasingly wide scale.

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<sup>1</sup> WARDEKAR, R. V. Importance of an annual case-detection campaign in the success of sulphone therapy. *Trans. VIIth Internat. Congr. Leprol.*, Tokyo, Japan, November 1958, pp. 343-345.