COMPARISON OF ORAL AND PARENTERAL DDS TREATMENT

To The Editor:

Your inquiry about my "experience and convictions" concerning the results of parenteral DDS treatment of leprosy in outpatient work referred to a statement I made at a recent meeting in favor of that method because of infrequence of relapse. The basis of that statement will appear below.

For background, it should be said that here in the Silver Jubilee Clinic the parent sulfone, DDS, was first used by subcutaneous injections in March 1947, by mouth in January 1949. In total, 233 patients have received the oral treatment, and 85 the injections. The dose by mouth has been 100 mgm. per day (700 per week), and by injection 500 mgm. per week or fortnight in a 25% suspension in coconut oil. The following evaluation is based on 44 cases of the former group, and 53 of the latter, eliminating cases that discontinued treatment or that were changed over from or to other drugs.

DDS treatment	*Oral*	*Parenteral*
Cases treated, total	233	85
Cases here evaluated	44	53
Duration of treatment	16-73 mos.	12-52 mos.
Results		
Negative	56.8%	60.4%
Much improved[a]	31.8%	34.0%
Improved[a]	6.8%	5.6%
Stationary	2.3%	—
Worse	2.3%	—
Relapse rate	6.9%	—
Incidence of lepra reaction	63.6%	39.6%

[a] "Much improved" means a decrease of more than 50% in the bacteriological index; "improved" means a decrease of less than 50%.

It will be seen that there is no significant difference between these two treatment groups with respect to improvement, although there is some difference: by adding together all cases that became much improved or negative we get 94.4% for the parenteral group against 88.6% for the oral one. Also, no case in the former group failed to improve, while there was failure in 2 cases of the latter group.

The difference as regards the relapse rate is suggestive, but again it is not significant for groups of this size. However, the frequence of lepra reaction (which includes acute neuritis) is definitely the higher in the oral group.

There are two things which to my mind are worth comment: 1. Bacteriological negativity after parenteral therapy appears to be long lasting, in spite of the fact that no further treatment is given after six months of continuous negative findings. There are cases which have been continuously negative for periods varying from 1 to 7 years after stopping this treatment, without any maintenance therapy.

2. In several instances patients who had had the parenteral therapy for a few months and for some reason discontinued were found, when they reappeared after several months of absence, to have had an appreciable decrease in their bacteriological index in spite of lack of any treatment in the interim. This change appears to be the result of slow and continuous release of the sulfone from the pockets of deposit under the skin. Here seems to be a definite advantage in dealing with patients of whom a majority tend to be irregular in attendance and to disappear after some time. The danger that these sulfone depots may be harmful, causing severe reactions or the dreaded sulfone dermatitis, seems to be slight. There has not been one death in our series which could be attributed to sulfone toxicity.

Parenteral therapy seems to have decided advantages: (*a*) The dosage is controlled, the patient having no chance to take too little or too much of the drug. (*b*) Lepra reactions seem to be less frequent, which under some circumstances would be an important point. (*c*) Negativity, apparently attained somewhat more frequently, seems to be long-lasting without recourse to a maintenance dose. (*d*) Even irregular patients seem to benefit after discontinuance of treatment, some of them even becoming bacteriologically negative.

It may be argued that the parenteral method is "messy," involving the use of syringes and needles, preparation of the suspension, and the work of administration. Considering the over-all advantages of this form of therapy, however, and also the general apathy of the patients toward the disease and its treatment which makes it uncertain what they do at home with the tablets given them, I believe that the parenteral method should find a place, if not the first place, in the control of leprosy by therapeutic measures.

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[In a report of discussion of treatment at a meeting of the Indian Association

of Leprologists held in 1955, Dr. Ramanujam is said to have stated that he advocated the parenteral administration of the sulfone because in his experience relapses were not so frequent.—EDITOR.]