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. The mandate of this JOURNAL is to disseminate information relating to leprosy in particular and also other mycobacterial diseases. Dissident comment or interpretation on published research is of course valid, but personality attacks on individuals would seem unnecessary. Political comments, valid or not, also are unwelcome. They might result in interference with the distribution of the JOURNAL and thus interfere with its prime purpose.

Effect of Levamisole Therapy on Lepromin Reaction in Lepromatous Leprosy Cases

TO THE EDITOR:

Recently levamisole has been reported to restore cell-mediated immunity (CMI) ([1, 5]). In lepromatous leprosy (LL) cases there is selective depression of cell-mediated immunity ([6]). We tried this drug in 10 lepromatous leprosy cases, 150 mg per day three consecutive days every fortnight for three months, along with dapsone (DDS). Out of 10 LL cases, 5 were males and 5 were females. The age range was 12–56 years with an average age of 33. The majority of the patients had been ill for less than one year, and only three of them had had antileprotic treatment for variable periods. None of the patients had any other systemic illness.

The lepromin test was done to assess the change in the immune status of each patient before and after the levamisole therapy, using lepromin-A (armadillo derived) supplied by WHO containing 4.0×10^7 bacilli/ml. The Fernandez reaction was read after 48 hr; the Mitsuda reaction was observed at the third and the fourth weeks. Dapsone (DDS) was started on the second day after the lepromin injection in all cases except one who was already on dapsone. Levamisole was started after the Mitsuda reaction was read. After three months of levamisole therapy another lepromin test was done. Slit and scrape examinations, hemoglobins and total and differential leukocyte counts were done every month.

We found no changes in the early lepromin reaction, while the late lepromin reaction was absent both before and after levamisole therapy. Meyers, *et al.* ([2]) and Sher, *et al.* ([4]) could not find changes in lepromin reactions with levamisole therapy, and Yagnik, *et al.* ([7]) could not stimulate CMI in LL cases with levamisole. Our findings are similar to theirs. Ramu and Sengupta ([3]) found temporary conversion of the early lepromin reaction which we could not find.

There was a regular decline in the average morphological index throughout the period. We did not observe any adverse effect (severe side effects of the drug or type 1 or type 2 reactions of leprosy) during the period of study.

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REFERENCES

1. HUSKISSON, E. C., SCOTT, J., BALME, H. W., DIEPPE, P. A., TRAPNELL, J. and WILLOUGHBY, D. A. Im-

munostimulant therapy with levamisole for rheumatoid arthritis. Lancet **1** (1976) 393–395.
2. MEYERS, W. M., KVERNES, S. and STAPLE, E. M. Failure of levamisole to alter the lepromin reaction. Am. J. Trop. Med. Hyg. **24** (1975) 857–859.
3. RAMU, G. and SENGUPTA, U. Preliminary trial of intervention. Levamisole therapy in persistently bacteriologically positive lepromatous leprosy. Lepr. India **55** (1983) 64–67.
4. SHER, R., WADEE, A. A., JOFFE, M., KOK, S. H., IMKAMP, F. M. J. H. and SIMSON, I. W. The *in vivo* and *in vitro* effects of levamisole in patients with lepromatous leprosy. Int. J. Lepr. **49** (1981) 159–166.
5. TRIPODI, D., PARKS, L. C. and BRUGMANS, J. Drug induced restoration of cutaneous delayed hypersensitivity in anergic patients with cancer. N. Engl. J. Med. **289** (1973) 354–357.
6. Turk, J. L. and WATERS, M. F. R. Immunological basis for depression of cellular immunity and the delayed allergic response in patients with lepromatous leprosy. Lancet **2** (1968) 436–438.
7. YAGNIK, C. S., JOGAIKAR, D. G. and MEHTA, J. M. Effect of levamisole on clinical outcome and DNCB conversion in leprosy patients. Lepr. India **55** (1983) 68–70.

Persistence of Langhans' Giant Cells in Rapidly Downgrading Leprosy Lesions

TO THE EDITOR:

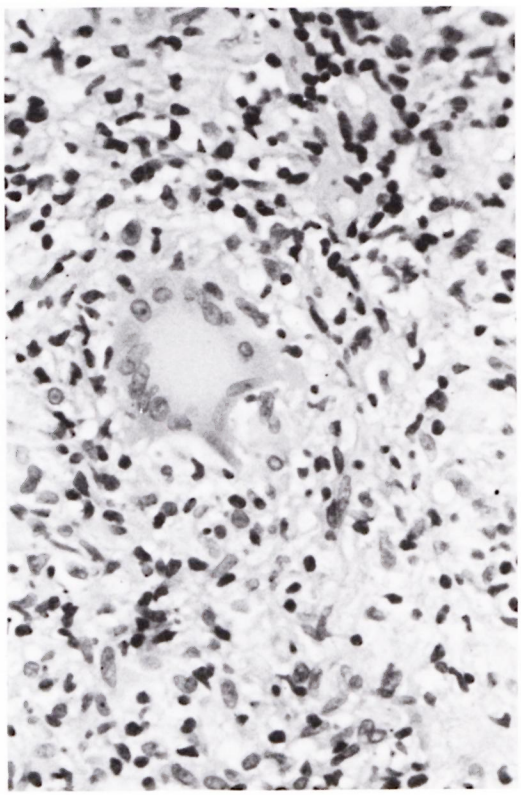
Inflammatory giant cell formation occurs in many diseases and is usually associated with granulomatous infiltration. Langhans' giant cells are a feature of the histopathological cell types found in lesions of tuberculoid and, to a lesser extent, borderline tuberculoid leprosy. They are not a feature in mid-borderline or lepromatous leprosy.

Cell-mediated immunity in borderline leprosy is unstable and, in a review of the outcome of reactions in 12 patients, it was shown that Langhans' giant cells were produced and persisted following upgrading reversal reactions but were not conspicuous in downgrading reactions ([1]).

We have recently observed Langhans' giant cells in the histopathology of rapidly downgrading leprosy.

Case A presented one month after the emergence of hypopigmented macules on his thigh and upper arm. A biopsy showed mid-borderline leprosy. Six weeks later he returned with an increase in the number of lesions, some of which were slightly erythematous. A biopsy of the left radial cutaneous nerve showed a cellular infiltration containing a few epithelioid cells, foamy macrophages, lymphocytes, and Langhans' giant cells. Acid-fast bacilli were also seen. With the exception of the Langhans' giant cells, the histological picture was that of borderline lepromatous leprosy (The Figure).

Case B was seen four months after the appearance of multiple hypopigmented lesions with poorly defined edges. The lesions had rapidly increased in number; some were marginally elevated but all had near normal sensation. Histopathology showed border-



THE FIGURE. Langhans' giant cell in an otherwise borderline lepromatous histological field from Case A.