Trial of Cimetidine in Lepromatous Leprosy—A Futile Attempt

TO THE EDITOR:

Cimetidine is primarily an H_2 histamine receptor antagonist, and is mainly used in the management of peptic ulcer. In the recent past there have been a number of reports suggesting an immunomodulatory property of this compound ([1, 6, 9]). Brown, *et al.* ([3]) have recently tried cimetidine in active as well as inactive cases of lepromatous leprosy (LL) and have observed no significant immunostimulation or leprosy-related reactions. In our center, we have studied the immunostimulatory effect of oral zinc in LL and found it a nonspecific immunostimulant since it failed to generate specific sensitization in LLp ([8]). In the pres-

ent study, cimetidine was used to suppress the suppressor T cells in order to enhance the immunostimulatory effect of oral zinc in LL.

Eight fresh cases of LL (6 LLs and 2 LLp) were treated with rifampin, 600 mg; dapsone, 100 mg; zinc sulfate, 220 mg; and cimetidine, 1200 mg (400 mg tid) per day for 3 months. At the end of the third month, there were no significant changes in the clinical charting, bacterial index, or histology. No leprosy-related reactions were seen during cimetidine therapy. These cases were followed up for 2 years, but did not show any significant differences compared with other modes of therapy ([8]). Only one case suffered from ENL reaction. The low incidence of ENL could also be because of simultaneous use of oral zinc in these patients ([7, 8]).

An earlier report by Daman and Rosenberg ([4]) observed the development of unresponsiveness to DNCB in patients with alopecia areata which was reversed by oral cimetidine therapy. This situation differs from the specific unresponsiveness seen in leprosy by the fact that in leprosy there is persistence of antigen. Another reason for the failure of cimetidine in leprosy could be that cimetidine is only effective in preventing the development of suppressor cells when it is given before the induction of suppressor cells ([5]). It has also been shown that cimetidine has no influence on suppressor activity of macrophages ([2]). Apart from these factors, the influence of the dose of cimetidine has also been highlighted by Jin, *et al.* ([5]); they have found 50 mg/kg body weight the most appropriate dose for counteracting generation of suppressor cells. In our study as well as the study by Brown, *et al.* ([3]) the dose of cimetidine was low as compared to that of Jin, *et al.* ([5]).

Before establishing the role of cimetidine, more understanding of the mechanisms of sensitization and unresponsiveness in leprosy is required.

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