CORRESPONDENCE

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Effect of Clofazimine on the Urinary Excretion of DDS (Dapsone)

TO THE EDITOR:

It is a well-known pharmacological phenomenon that one drug may affect the excretion of another drug ([1]). This report presents observations which indicate that clofazimine (Ciba-Geigy: Lamprene) affects the urinary excretion of DDS.

Seventeen leprosy patients participated in the study. Three were clinically classified as borderline tuberculoid (BT), two as borderline lepromatous (BL), and twelve as pure lepromatous leprosy (LL). They were on various DDS regimes and had been on treatment for various lengths of time. The study started on the day when the patients had taken their usual dose of oral DDS. During the study no DDS was given to any of the patients. After discontinuing the DDS treatment the urine from each patient was collected and the daily excretion of DDS estimated. The concentration of DDS in urine was determined by the method of Levy and Higgins ([2]) which we modified for urinary analysis by the introduction of an alkaline hydrolysis of the urine.

The daily excretion of DDS decreased gradually for about one week when it stabilized at a low level, which was usually less than 50 μg DDS excreted per 24 hours. All patients were then given a single dose of 100 mg clofazimine. Subsequent to the clofazimine administration 8 of 17 patients showed a transient increase in DDS urinary excretion. In the other nine patients no change was observed. In those showing the increase, the amount of excreted DDS varied, and also the time relation between clofazimine administration and appearance of the DDS excretion peak. Figure 1 shows the peaks of DDS excretion in two patients, together with the curve for one patient whose urinary excretion of DDS was not influenced by clofazimine. A second dose of clofazimine did not result in increased DDS excretion in any of the patients.

The finding may be interpreted as if some of the DDS administered is retained in the body. Apparently clofazimine has the property to dislodge the DDS retained. Such a depletion action of clofazimine was observed in 8 of 17 patients studied. Using this property of clofazimine as the criterium, the finding of a DDS depot did not seem to be di-

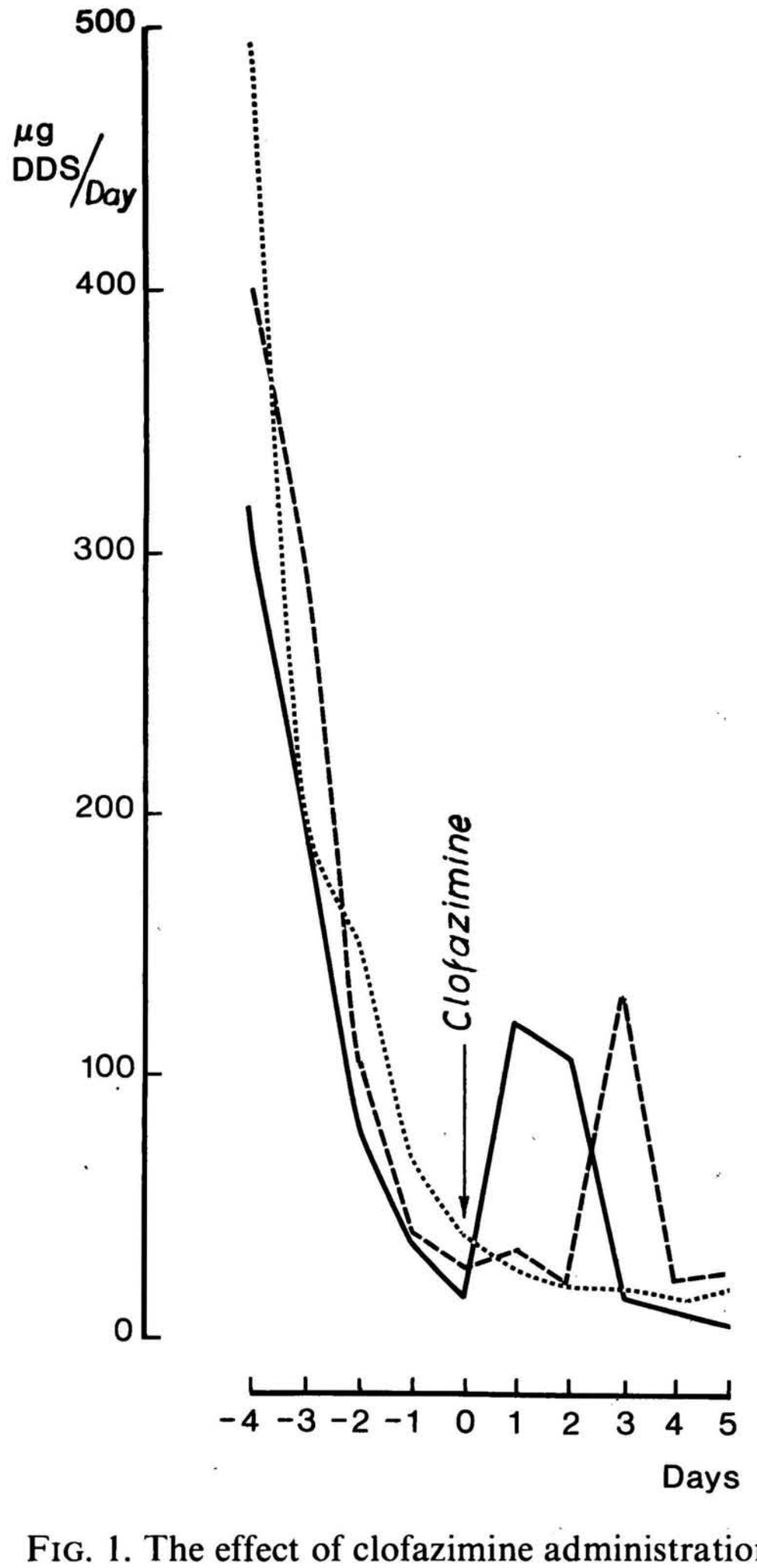

FIG. 1. The effect of clofazimine administration on daily DDS excretion in three of the leprosy patients studied. Subsequent to the giving of 100 mg clofazimine on day 0, two of the patients showed a peak in DDS excretion (_____, ------), the third did not (.....).

rectly related to the classification of the patients or to their DDS regimes. However, evidence of a DDS depot was associated with prolonged regular DDS therapy. On the other hand, patients in whom clofazimine did not show any effect on the DDS excreted, were regularly treated for less than ten weeks or had received treatment irregularly. Several showed clinical and bacteriologic evidence of ineffective medical treatment and were on clinical grounds suspected of being resistant to DDS.

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