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Letters to the Editor

TYPE II (ENL) REACTION IN HISTOID LEPROSY IN A CHILD

Sir,

SR, a 15-year-old male from eastern India, reported with asymptomatic, nodular eruptions of 2 years' duration, which were distributed over the face, buttocks and extremities. Accompanying this was the impairment of sensation of the hands and feet. These symptoms had been present for 2 years. A few days after admission the patient developed fever, malaise, loss of appetite, arthralgia and myalgia with ulceration of the nodules. On questioning the patient disclosed that he had had dapsone monotherapy for 6 months without any amelioration in the symptoms, on the contrary he developed fresh lesions during the course of therapy. He also revealed that his mother was a known case of borderline–lepromatous leprosy and had had dapsone monotherapy 9 years ago for a period of 6 months. However, she had taken the treatment irregularly and had discontinued it after 6 months.

Cutaneous examination revealed skin coloured, translucent, dome-shaped nodules, 1–3 mm, regular in contour with shiny and stretched overlying skin. They were present over an apparently normal skin. Some of the nodules were ulcerated and tender (Figure 1). These were distributed over the face, buttocks, thighs, legs and arms. Earlobes and eyebrows were infiltrated. There was impairment of sensation to temperature, touch and pain confined to the glove and stocking areas. The lateral popliteal, posterior tibial, superficial branch of radial and ulnar nerves were bilaterally thickened.

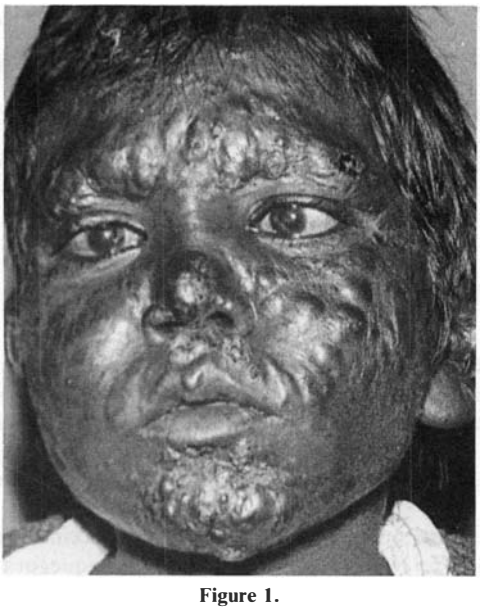

Figure 1.

Slit-skin smear examination of the patient revealed a marked discrepancy in the bacillary index from the nodule and the surrounding skin. The former being 6+ and the latter 3+. The bacilli were granular and fragmented. There was also an infiltration with neutrophils in smear from the nodules. An hematoxylin eosin section revealed the presence of numerous, thin, spindle-shaped histiocytes arranged either in an intertwining, criss-cross or whorled fashion. The conspicuous absence of appendages within the nodules was another feature. An abundance of acid-fast bacilli identified by Fite's stain were distributed all over. They were uniformly stained and measured longer than the ordinary lepra bacilli and were arranged in groups along the long axis of the cell. Globii were seen occasionally.

Taking cognisance of history, clinical examination, slit-skin smear examination and histopathology, a diagnosis of histoid leprosy with Type II (ENL) reaction was made, caused presumably by a primary dapsone-resistant strain of *Mycobacterium leprae.* The child had been in intimate contact with his mother, and was infected by the strain of *M. leprae* rendered resistant as a result of the inadequate, irregular monotherapy with dapsone which had been taken by her. Histoid leprosy is a distinct expression of multibacillary leprosy[1,2] and may occur as a result of irregular and inadequate treatment with dapsone, which may be responsible for the emergence and selective proliferation of drug-resistant bacilli in these patients.[3–5] This case is probably due to primary dapsone-resistant bacilli.

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