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MANAGEMENT OF REACTIONS

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MANAGEMENT OF REACTION IN LEPROSY

Most reactions seen in leprosy control schemes belong to one or two main types, namely erythema nodosum leprosum, or ENL (lepromatous lepra reaction) and reversal reaction. The term "reversal reaction" was first introduced by H.W. Wade¹ who described this type of reaction "among supposed lepromatous cases under treatment ... with the occurrence of what may be called the 'reversal reaction' in which there appear lesions more or less suggestive morphologically of a tuberculoid nature", and reported by Souza Lima as "pseudoexacerbation" but by I. Takiri as "acute lepromatous infiltration".²

The type ENL occurs in lepromatous and small numbers of borderline patients; the reversal reaction is related to an increase in specific cell-mediated immunity and occurs in borderline forms of leprosy, usually soon after chemotherapy has been started. Reactions in TT leprosy are probably akin to reversal reaction.

Recognition and treatment of erythema nodosum leprosum (ENL)

Erythema nodosum leprosum, also known as Type 2 Lepra Reaction, is characterized by the appearance of erythematous nodules or plaques which are tender.

They occur commonly on the face, arms and thighs. Fresh crops of lesions may appear and when they are numerous they are accompanied by fever and malaise. Other features of the reaction which may or may not occur with ENL are nerve pains, bone and joint pains, iridocyclitis, dactylitis and orchitis.

¹ WADE, H.W. (1961) Borderline leprosy: clinical features. WHO document WPR/LEP/9

Mild ENL should be treated in the field. If there is any nerve tenderness, the affected limb(s) should be rested. Analgesics should be given as required, and the patient should be seen regularly by the leprosy worker, at least once every two weeks. In particular, the eyes should be checked at each visit to ensure that the patient is not developing iridocyclitis.

ENL is graded severe if there is high temperature and general malaise; if the skin lesions become pustular and/or ulcerate; if the nerves become painful or if loss of nerve function develops; or if there is evidence of iridocyclitis, orchitis or joint swelling. The patient should be referred immediately to hospital, analgesics being given as required for the journey.

In general, the antileprosy treatment with dapsone should be continued unchanged. Drugs available are steroids, thalidomide* and clofazimine. Prednisolone rapidly controls ENL but requires continuous and often increasing dosage; steroid toxicity and dependence have been frequently seen. Thalidomide is relatively inexpensive and has few toxic effects. The contra-indication of thalidomide in outpatients derives from its teratogenicity. Clofazimine takes 4-6 weeks to exert its full effect. In very severe ENL, even at dosages of 300 mg daily (a dose level that should not usually be maintained for longer than about 3 months), clofazimine may not be as effective as steroids or thalidomide, and it may not be accepted by light-skinned patients.

* For drug safety reasons, WHO does not assist countries or programmes in the purchase of thalidomide. Responsibility for the use of the drug must rest with the programme manager or hospital doctor. Thalidomide should be given to patients only after they have been fully informed about its possible teratogenicity, WHO Technical Report Series, No. 607, 1977 (Fifth report of the Expert Committee on Leprosy).

Recognition and treatment of reversal reactions (Type I Reaction)

In this type of reaction some or all of the existing skin lesions become erythematous and more prominent and may even ulcerate. Although systemic disturbance is unusual, nerve involvement is common. There may be swelling and tenderness of peripheral nerves. A serious consequence is the motor disturbance in one or more of the three nerves, the ulnar, the lateral popliteal and the facial, with the patient at risk of developing clawhand, dropped foot or facial paralysis.

In mild reactions, the antileprosy treatment should be continued unchanged. Analgesics should be given as required. If there is nerve tenderness, the affected limb(s) should be rested. The patient should be seen at least every two weeks and asked to return immediately if the reaction becomes more severe.

In severe reversal reactions, especially those in which there is nerve pain and tenderness or loss of nerve function, the patient must be referred immediately to hospital. Analgesics should be given as required. Painful nerves should be rested and the affected limb supported in a splint if necessary. In hospital, dapsone treatment should in general be continued unchanged; and treatment should be started with prednisolone. The initial dosage is usually 10 mg three times a day, although individual patients will vary in their dose requirements. Provided that patients can be seen monthly by a doctor and have responded well to therapy, they may be sent home at about the end of the second month, if necessary on a small dose of prednisolone, which should be continued until the reaction subsides.³

The attention given to reactions in the field is usually not satisfactory. All field workers should be trained in the recognition of reactions so that appropriate and early action may be taken. Leprosy

³ WHO Technical Report Series, No. 607, 1977 (Fifth report of the Expert Committee on Leprosy)

control services should include a system for the referral of cases to hospitals, particularly local district hospitals, so that acute cases can receive early attention. Arrangements need to be made for hospital medical staff to be appropriately trained to deal with these important complications.