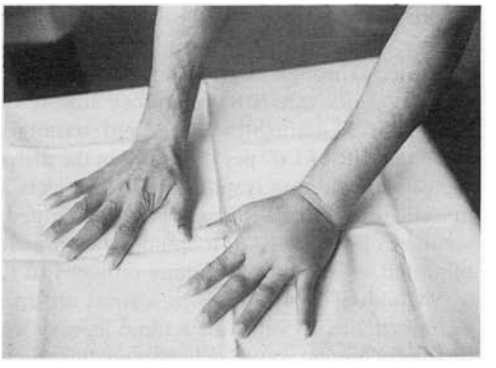
UNILATERAL OEDEMA OF REVERSAL REACTION (RR) IN BORDERLINE LEPROSY

Sir,

Oedema is a well recognized feature in leprosy, especially during reactions. But oedema in only one extremity or on one side of the face is a rare, though documented occurrence.

In 1983 while I was a volunteer doctor at the Nonsombun Leprosy Hospital in Khon Kaen, Thailand, I had 2 patients in whom I observed this interesting feature of oedema in only 1 limb. One was a 26-year-old male patient with BL leprosy (BI 3+), who after 5 months of combined antileprosy treatment with dapsone, clofazimine and rifampicin developed signs of RR. He had associated swelling of only 1 foot (left) which subsided along with other signs of reaction when treated with a course of prednisolone. The other was a 29-year-old male patient who also had BL leprosy with a BI of 4+. After 3 months of combined therapy, he developed RR associated with oedema of the right foot only. He too received a course of prednisolone following which the reaction as well as the oedema subsided.

The occurrence of unilateral oedema, though rare, has been documented by Dr Jopling in his *Handbook of Leprosy*.[1] I have further discussed the subject with him through personal communication.[2] He recalls that in the 1960s he had a male Bangladeshi patient who developed oedema of the face and one hand during upgrading from BB to BT (Figures 1 and 2).



Dr Harold Wheate also has observed this feature in his patients—2 cases with unilateral oedema of the hands and one case with unilateral oedema of the eyelids—in association with RR in borderline leprosy in 1958.[3] Histopathology in one of them supported the diagnosis of reaction.

Although oedema of face, hands and feet is often observed in both types of leprosy reaction (RR and ENL reaction), oedema confined to one extremity is a phenomenon which has been reported only in RR, and this fact may supply a clue as to the aetiology of oedema in reactional leprosy. I suggest that nerve damage from oedema may be the principal cause, even though clinical evidence of nerve damage may not be present in all cases. Intraneural oedema causes pressure on autonomic nerve fibres controlling capillary permeability, thus allowing leakage of fluid into the tissues. The difference in distribution of oedema may reflect the difference in nerve involvement in lepromatous leprosy compared with borderline leprosy; in the former, nerve involvement tends to be bilateral and symmetrical, whereas in the latter it is either bilateral and a symmetrical, or unilateral. One effect of steroids in treating reactions is to reduce intraneural oedema, hence prednisolone plays an important role in relieving nerve pain due to pressure on axons, and in stopping leakage of fluid from capillaries resulting from pressure on autonomic fibres.

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