

DAPSONE AND ERYTHEMA NODOSUM LEPROSUM

Sir,

Dapsone has been widely used for various other dermatological conditions besides leprosy. These include dermatitis herpetiformis, subcorneal pustular dermatosis, pemphigus foliaceus, bullous pemphigoid, erythema elevatum diutinum, acropustulosis of infancy etc.¹ Most of these conditions are characterized by an inflammatory infiltrate predominantly consisting of polymorphonuclear leucocytes (PMNL). It has been shown that the drug primarily interferes with the myeloperoxidase—H₂O₂—halide mediated cytotoxic system in the PMNL *in vitro*.² Because this system fulfils the antimicrobial activity and is suggested to be a modulator of the inflammatory reaction as well, the action of dapsone in dermatitis herpetiformis may in part be explained by its effect on this system.²

The lesions of erythema nodosum leprosum (ENL) are characterized by an infiltrate of PMN leucocytes in regressing lepromatous granulomata.³ However, dapsone has no role whatsoever in either prevention or treatment of ENL. Two possibilities exist: either the myeloperoxidase—H₂O₂—halide system of lepromatous patients is not susceptible to the action of dapsone or other lysosomal enzyme systems in the PMNL are responsible for the inflammatory response in the ENL. The second possibility seems more plausible because Type 2 reaction is characterized by constitutional symptoms while the dermatoses in which dapsone is useful are not. It will be interesting to identify the enzyme systems in the PMNL that are responsible for the inflammatory response in ENL in order to develop the drugs that would specifically act at this level rather than causing a profound immunosuppression like the systemic corticosteroids.

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