

## Letters to the Editor

### COMMENT: CLOFAZIMINE-INDUCED LYMPHOEDEMA

Sir,

Dr Oommen's letter (*Lepr rev*, 1990; **61**, 289), describes six patients with multibacillary leprosy who developed pedaloedema when on multidrug therapy. The author ascribes oedema to the possibility of clofazimine deposits in the lymphatic channels. Clofazimine is a fat-soluble drug which accumulates in the organs with reticuloendothelial components and in the adipose tissue.<sup>1</sup> There is no evidence that it has any affinity with the cells that line the lymphatic channels. Also, even though the intestinal mucosa and mesenteric lymph nodes show a heavy deposition of the drug, the concentration of the drug is not that high in other groups of lymph nodes.<sup>2</sup> Hastings *et al*<sup>3</sup> did not find oedema in any of their patients during their long-term toxicity studies with this drug. If clofazimine causes mechanical obstruction to the flow of the lymphatic fluid, the resultant oedema would have been found in all the patients and it would have been dose dependent. None of these is found in clinical practice.

The second point that I wish to raise is that the author does not state whether the patients had suffered from type-2 lepra reaction either before or after starting multidrug therapy. This is significant because oedema is a feature of both type-1 and type-2 lepra reactions.<sup>4</sup> It has been shown that during a type-2 reaction there occurs a transient lymphatic obstruction in the lymph nodes as a result of compression of the subcapsular sinus against the thickened and fibrotic capsule of the inflamed lymph node.<sup>5</sup> It is responsible for the oedema observed in some patients with type-2 lepra reaction. Extensive post-inflammatory fibrosis in the lymph nodes could cause persistent oedema.<sup>5</sup> Oedema during a type-2 reaction can occur in the absence of severe skin manifestations.<sup>5</sup> It is likely that the patients described by Dr Oommen suffered from a type-2 reaction involving the lymph nodes which was not severe enough to give rise to systemic upset, ENL or neuritis. Personal experience has revealed that some patients with multibacillary disease developed carpo-pedal oedema as the only overt manifestation of a type-2 lepra reaction. This oedema responds to treatment with systemic corticosteroids. Moreover, multibacillary patients with BL type of disease may undergo type-1 reaction which may give rise to oedema.

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### References

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- <sup>3</sup> Hastings RC, Jacobson RR, Trautman JR. Long-term clinical toxicity studies with clofazimine (B663) in leprosy. *Int J Lepr*, 1976; **44**: 287–93.
- <sup>4</sup> Pfaltzgraff RE, Bryceson A. Clinical leprosy, In: *Leprosy*. Hastings RC (ed), Edinburgh; Churchill Livingstone, 1985, pp 134–76.
- <sup>5</sup> Stanley JNA, Pearson JMH, Ridley DB. Episodic oedema in type-2 lepra reaction can be caused by transient lymphatic obstruction in the lymph node. *Int J Lepr*, 1986; **54**: 231–5.