LETTERS TO THE EDITOR

Madam,

Alopecia areata and dinitrochlorobenzene (DNC B)

The leading article in Feb. 24, 1979 issue of BMJ on page 505[1] referred to dinitrochlorobenzene (DNC B) as a new form of therapy for alopecia areata. Experience of workers who had encouraging results was quoted[2,3,4]. It was reported that hair grew even at the untreated sites, probably on the basis of a more general immunological stimulation. There were many explanations given for the encouraging results obtained, (i) the non-immunological stimulation (ii) elimination of an antigenic stimulus viral or other leading to remission on the basis that the allergic response to DNC B in treated areas would facilitate the clearance of antigen by augmenting the pool of lymphocytes[2], (iii) Generation of suppressor T-lymphocytes on response to allergic reaction to DNC B non-specifically inhibit the auto-immune reaction against hair follicle constituents[4].

Subsequently Harrington[5] disagreed with the results of the previous investigators on the basis of his experience. We tend to agree more with Harrington and like to share our experience with the DNC B therapy. While skin testing patients with papova virus infection and leprosy with DNC B for cell mediated immune responses, we tried to treat their warts taking advantage of their DNC B sensitisation already produced. Treatment of warts with DNC B has already been recommended by Lewis[6].

The treatment of alopecia areata was undertaken on the same lines. The treatment results in warts were not very encouraging. They were definitely much less successful in alopecia areata.

Eleven patients with localised patches of alopecia areata on scalp and beard region were treated – (eyebrow areas were excluded). Sensitisation and challenging with DNC B was done by the method of Catalona et al[7] as these require much smaller concentrations (2000 mcg/ml and 50 mcg/ml of DNC B). After the initial sensitisation (on the volar aspect of the arm) the alopecic patches were challenged five times at fortnightly intervals, after the initial inflammation had subsided completely. In four patients hair growth was seen after the healing of last challenge induced dermatitis. In two patients inflammatory response was very severe causing oedema of the whole face and involving the eyelids. Three patients had to be treated with systemic steroids for 4 weeks but they did grow hair. The hair growth could however have been the result of steroid treatment in these patients. In the remaining five patients there was no hair growth at the end of 10 weeks when the therapy was abandoned. Besides the two patients who had severe degree of oedema of the face, variable degree of discomfort was complained of by others. The concentration of DNC B used by previous workers was very high; upto 2%. With that concentration the reactions could have been

disastrous and we suggest that DNC B should not be recommended for the treatment of alopecia areata. Apart from the dangerous possibility of cross-sensitisation with other known and unknown compounds, the therapeutic response is erratic and even when satisfactory, the hair tended to get shed on cessation of the applications.

References :

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