### Comment

We believe that this is the first case in which adult T cell lymphoma/ leukaemia has apparently spontaneously resolved in Europe or in a patient of West Indian origin. There are, however, Japanese reports of this condition running a subacute course.<sup>4</sup> If the host response to the disease is the same in both the West Indian and Japanese populations at risk from disease associated with HTLV-I, then further patients similar to ours might be expected among the West Indian community in Britain. They must be distinguished from those with cutaneous sarcoidosis.

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# Aqueous malathion 0.5% as a scabicide: clinical trial

Scabies is a serious public health problem in developing countries and of increasing importance in Europe and North America. Control is possible only if treatments are applied thoroughly, on enough occasions, and all contacts are followed up to reduce the risk of reinfection. Treatments that require multiple applications may fail because of lack of patient compliance. Benzyl benzoate emulsion, which often needs at least two applications, is still the most widely used treatment after 50 years. Preliminary work with aqueous malathion emulsion<sup>1</sup> suggested that it is a safe and efficient alternative. We report a trial based on part of a scabies control programme in an orphanage and two schools in Dhaka, Bangladesh.

#### Patients, methods, and results

Scabies was diagnosed by isolating the parasite except where secondary infection, excoriation, or scarification and eczematisation of long term lesions made this impossible. These cases were included on clinical criteria. The patients were mainly schoolchildren but included two aduls and 12 infants aged under 2. There were equal numbers of patients of each sex.

Treatment was either 0.5% malathion in aqueous emulsion or 25% benzyl benzoate emulsion. Both formulations were proprietary products obtained in Britain. Treatments were applied with a 7.5 cm (3 in) paintbrush to adults and larger children, and by hand to small children and infants. Lesions on the face or scalp of infants were treated using cotton wool dipped in the appropriate preparation. Each emulsion was painted on to the whole body from the neck down, including the soles, regardless of the distribution of lesions. Patients were not bathed before application. After allowing the emulsion to dry patients dressed again in the same clothes. Patients were requested not to wash or bathe until the next day. Many of the children, however, probably did wash the material off very much sooner.

Patients were checked after seven and 14 days. Some failed to return after one week but were examined after two weeks. Of 112 cases treated, 67 were assessed satisfactorily (table). Follow up observations of some patients were possible for a further three weeks.

Efforts were made to treat other family members. Those who did not have symptoms were often reluctant to submit to treatment. No family contacts are included in this assessment. The numbers of contacts were similar in each treatment group.

The sixteen patients with partial cures were retreated using the same formulation. Eight of these returned for examination one week later. Seven had been treated with malathion (two simple, five complicated cases) and one (simple case) with benzyl benzoate. All second treatments were successful.

Neither erythema nor toxic effects were observed with either preparation but those patients treated with benzyl benzoate complained of stinging, particularly on excoriations and secondary infections. No stinging was reported with malathion emulsion. After treatment many patients complained of continued and often increased pruritus for up to 14 days, particularly around scabietic nodules. This occurred with both preparations.

Secondary infections were treated separately with topical application of antibiotic or fungicide.

#### Comment

The efficacy of benzyl benzoate emulsions is extremely variable owing to different local formulations around the world.<sup>2</sup> y-Benzene hexachloride 1% (lindane) lotion is an effective alternative<sup>3</sup> but, though widely used, is still not the treatment of choice for many dermatologists in Britain or the United States (various personal communications), and recent fears of potential toxicity may restrict its use in future.4

Malathion has low mammalian toxicity and any entering the bloodstream is rapidly degraded even if ingested.<sup>5</sup> The 0.5% aqueous emulsion offers an acceptable treatment requiring a single application and suitable for use in the clinic or in field control programmes. We found it more effective than 25% benzyl benzoate-92.3% success as against 68.8% for simple infections (p < 0.02). Our data also compare favourably with Alexander's experience with 1% y-benzene hexachloride,3 which was 91.3% effective on a single application when figures were corrected for the same criteria of success (no significant difference).

Costs of treatment per patient were comparable for the preparations used.

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#### Efficacy of single application treatments with scabicide emulsions. Figures are numbers of patients

Type of scabies	Aqueous malathion 0.5%		Benzyl benzoate 25%		Failed to return for assessment	
	Complete cure	Partial cure	Complete cure	Partial cure	Malathion	Benzyl benzoate
Simple (no secondary infections or nodules) Simple nodular Complicated (with extensive secondary	30 6	3	10 1	4 1	15 2	11 1
infection—for example, impetigo, ecthyma, etc)	3	7	1	1	11	5

Treatments were allocated semialternately-that is, two patients given malathion to one given benzyl benzoate.

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