

Correspondence

House dust mite control with Acarosan—an extreme test?

Sirs, The editorial by Colloff in your issue of July 1992 [1] was highly critical of the second part of the controlled study by Kneist et al. of the indirect effects of Acarosan on rhinitis [2] just as the first part [3] was critically reviewed by Godfrey [4], although neither critic has any practical experience of using Acarosan. The criticisms have been answered by the authors on two occasions [5,6], but not accepted by Godfrey [7].

My comments would be of academic interest only were it not that the dust mite is the most important allergen worldwide, and avoidance is often difficult or impossible. It would seem logical that any promising method of mite control would be subjected to extensive clinical trials without delay, yet Acarosan has been available in this country for 5 years. Personal attempts to arouse interest in this product in the UK completely failed, so an open clinical study using the patients as their own control was begun in 1988, and the results in the first 25 cases published in 1991 [8]. Interim reports involving 61 cases have also been presented as posters at international meetings [9]. Only one other British study has been published, in which Acarosan was only one aspect of allergen avoidance in infancy [10].

A final report on 5 years' experience is now in preparation, but it is appropriate to mention the major findings now because blind assays of *Der p* I revealed that marked decrease in levels of this allergen usually lasted for a year or longer after only one application of Acarosan.

This surprising finding may be due to the coprophagous habits of the mites [11] and suggests that Acarosan has a unique mode of action, supported by the demonstration of recycled benzyl benzoate in the gut of the mite [12] from sub-lethal doses.

We also found that obvious clinical improvement can be associated with a relative decrease in *Der p* I to levels still far above the arbitrarily established critical level of 2 µg/g of dust. But the threshold of reaction to mite allergen must be an individual characteristic of each patient, ranging from exquisitely to slightly sensitive and also variable over time. The importance of establishing the dose-response relationship has recently been discussed by Carswell [13]. Another striking finding was that some younger patients have ceased all medication, and no longer react to dusty environments, such as the houses of relatives, which had previously triggered a relapse.

The concept of treating a house with an acaricide, instead of its inhabitants with drugs, makes good sense

and could save millions of pounds from the National Health Service drug bill. We have also observed improvements in several mite allergies under one roof [8].

At the present time the intensive marketing of mite proof bed covers, some very expensive, is in striking contrast to continuing doubts regarding the effectiveness and safety of Acarosan [14]. It is not widely known that benzyl benzoate was accepted as safe for use in food in the USA in 1965 [15], in Europe to a recommended daily intake of 5 mg/kg of body weight per day in 1970 [16], and by our own MAFF in 1978 [17]. Finally, Acarosan has been accepted as safe by the British Health and Safety Executive.

Five years' clinical experience has convinced me that Acarosan, in which I declare I have no personal interest, is a significant breakthrough in mite control. It would seem obvious that to confine the mites with bed covers is to address only part of the problem, having no effect on the mites in the upholstered furniture and carpets. To use both methods of mite control would be the ideal approach, especially in Britain where the mite is the major allergen causing untold morbidity from asthma, rhinitis, and many cases of eczema.

References

- 1 Colloff MJ. House dust mite control with Acarosan — an extreme test? *Clin Exp Allergy* 1992, 22:657–8.
- 2 Kneist FM et al. Mechanisms and patient compliance of dust mite avoidance regimens in dwellings of mite-allergic rhinitis patients. *Clin Exp Allergy* 1992, 22:681–9.
- 3 Kneist FM et al. Clinical evaluation of a double-blind dust mite avoidance trial with mite allergic rhinitic patients. *Clin Exp Allergy* 1991, 21:39–47.
- 4 Godfrey K. House dust mite avoidance — the way forward. *Clin Exp Allergy* 1991, 21:1–2.
- 5 Kneist FM. Correspondence. House dust mite avoidance — the right way to go forward. *Clin Exp Allergy* 1992, 22:589.
- 6 Kneist FM, van Brunswijk JEMH. Management of mite allergens with Acarosan. *Clin Exp Allergy* 1993, 23:340.
- 7 Godfrey K. Correspondence. *Clin Exp Allergy* 1992, 22:590.
- 8 Morrow Brown H, Merrett TG. Effectiveness of an Acaricide in management of house dust-mite allergy. *Ann Allergy* 1991, 67:25–31.
- 9 Morrow Brown H. Mite control measures. Proceedings, BSACI/IV Charles Blackley Symposium, 1993.
- 10 Ridout S et al. Acarosan and the Acarex test in the control of house dust mite allergens in the home. *Brit J Clin Pract* 1993, 47:141–4.
- 11 Rees J. The importance of the dust mite allergen *Der p* I. PhD Thesis, University of London, 1993.

- 12 Bischoff E et al. Domestic mites, do they ingest acaricidal products based on solidified benzyl benzoate? A photographic study. *J Allergy Clin Immunol*, abst no 448, 1992, 89:256.
- 13 Carswell F. House dust mite exposure as a cause of asthma. *Clin Exp Allergy* 1993, 23:532.
- 14 British Thoracic Society, Dr AA Woodcock, Press Information, 3 Feb 1993.
- 15 Flavouring Manufacturers Assoc. Survey of flavouring ingredients usage levels No 2138 *Fd. Technol.*, Campaign 19(2) Part 2 1965, 155.
- 16 Council of Europe, Natural and Artificial Flavouring Substances, Partial Agreement in the Social and Public Health Field, List A (I), No 263, p 63, Strasbourg, 1970.
- 17 Ministry of Agriculture, Fisheries, and Food. Food Additives and Contaminants Committee Report on the review of Solvents in Food, FAC/REP 25 1978, p 26.

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