POTENTIAL USE OF PERMETHRIN-IMPREGNATED NETS IN THE CONTROL OF HOUSE DUST MITES

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House dust mite (HDM) allergens are the main indoor triggers of atopic conditions such as asthma, eczema and allergic rhinitis. The prevalence of these conditions is on the increase. Reduction in exposure to HDM allergens can result in clinical improvement. A simple, effective, safe means of lowering/eradicating HDM populations in mattresses, the main reservoir of HDM allergens, is sought. Permethrin effectively kills HDM. Permethrin-impregnated nets have proven efficacy against mosquitoes in field conditions for up to 16 months.The present study describes a laboratory evaluation of permethrin-impregnated nets against HDM. Using chambers constructed to simulate mattress conditions, permethrin-impregnated nets were effective in eradicating HDM populations for at least one year. A field trial is underway to test the efficacy of permethrin-impregnated mattress covers against HDM. If effective, such covers may provide a simple, cheap long-lived means of protection against HDM allergens and will offer alternative treatment, to topical and/or systemic medicines, for atopic sufferers.

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