

Letter

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To the Editor:

An outbreak of blister beetle dermatitis

Beetles are insects whose fore-wings are modified to form hard wing-cases for the membranous or reduced hind wings¹. Several families of beetles are known to cause skin lesions. The 'vesicating beetle' families include Staphylinidae (rove beetles), Meloidae (oil beetles), Oedemeridae, Paussidae, Coccinellidae (lady birds) and Tenebrionidae (darkling beetles)¹. Usually, lesions are produced only when the beetle is crushed on the skin. Different species produce different irritants eg. most of Meloidae have cantharidin, most Staphylinidae, esp. *Paederus* species have pederin.

The characteristic features of skin injury due to vesicating beetles are erythematous, linear vesicating lesions and 'kissing lesions'¹. Often the initial contact with the insect goes unnoticed and only hours later the patient notices symptoms².

The author had the opportunity to witness an outbreak of a peculiar erythematous-vesicular dermatosis similar to *paederus* dermatitis^{3,4,5} at a dormitory of the University of Ruhuna, Matara in 1993. The author was invited by the University Medical Officer to investigate an unusual dermatological condition occurring among the inmates of the temporary male hostel at the University.

Twenty six (26) university students had typical features of, or, a history of a dermatosis very suggestive of that due to a vesicating beetle. Five⁵ patients had signs and symptoms of an acute erythematous-vesicular dermatitis (EVD). Ten had partly resolved skin lesions and 11 gave a history of an EVD some time during the previous year.

Interestingly, none of our patients gave a history of contact with a beetle which is often the case with blister beetle dermatitis^{2,3}. Most patients gave a similar history; on waking up in the morning, on the

face, neck, trunk or limbs they had noticed burning pain, reddening and subsequent blistering particularly in the centre of lesions. Most had linear lesions, several had 'kissing lesions' at the flexures. The lesions in the healing phase (few days to few weeks), revealed scaliness and hyperpigmentation.

Some of the university students had several similar episodes. Infact, some gave a history that during approximately the same period of the year (August to November) they developed the condition, suggesting that the population of the beetle concerned is dependent on environmental conditions. Most of the affected students were living on the second floor of the building, indicating that the insect was able to fly. Fluorescent lights in the rooms would have attracted the beetles⁴.

The clinical features of our cases were very similar to those described by Kamaladasa et al Sri Jayawardene Pura Hospital in Kotte where they identified the causative beetle as *paederus* species⁵.

A biopsy was done on one patient and the haematoxylin and eosin stained sections revealed (courtesy Dr Priyanthi Kumarasinghe) severe spongiosis of epidermis and leukocytoclasia. Nuclear dust was seen throughout the spongiotic epidermis and the dermis. The histopathology was in keeping with the changes reported in acute blister beetle dermatitis⁴.

The university authorities were advised by the author to use fine nets (mesh) at the windows in the dormitory to prevent insects from getting in. The hostellers were advised to use 'light traps' to attract and destroy any insects which might come in from the open doors and to use mosquito nets for individual beds to prevent insects from falling on to the bed at night.

A small sample of insects collected on one visit did not reveal any possible vesicating beetles (courtesy Dr Rohan Rajapakse). However, a proper survey of insects in the environment could not be done due to practical difficulties.

The occurrence of new cases since that time is minimal and sporadic. This outbreak of vesicating beetle dermatitis in 1993 could have been due to an increased population of insects due to excess rain in the preceding months.

In conclusion, the setting, clinical features, and the natural history of the skin lesions in this outbreak of erythematous-vesicular dermatitis at the university dormitory in Matara is very likely to be due to a vesicating beetle. However the exact causative beetle could not be identified.

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