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Dust Mite Atopy

The dust mite is the most commonly encountered perennial allergen in the western world. Mites are found predominantly in bedding, carpets and feed on shed human skin or on other animal dander. High humidity and damp sealed environments favor their breeding. They are most prevalent in temperate climates and are favored by “western” lifestyles as characterized by fitted carpets and tight insulation. Similarly in dogs, in Europe and New Zealand, house dust mite atopy is the most commonly diagnosed allergy of Canine atopic dermatitis. There are more than 36 species of mites in dust but Dermatophagoides farinae and Dermatophagoides pteronyssinus are most important. On the intradermal test sheet these are called *D.farinae* and *D.pteronyssinus*. For many years the inhaled route was considered the most important route for sensitization. Recent studies have shown that the percutaneous (through the skin) is the most important.

Treatment

The treatment of the house dust mite allergic patient must be tailored to the needs of both the owner and animal. The three management options available are avoidance, immunotherapy (hyposensitisation), and symptomatic treatment. Avoidance is the ideal form of therapy because no drugs are needed and the symptoms would be alleviated with the elimination of the allergen. As many atopic animals are sensitive to more than one allergen and as house dust mites are inescapable, avoidance is rarely possible. At best avoidance can decrease the animal’s exposure, which may relieve its symptoms. Symptomatic therapy of immunotherapy (hyposensitisation) will be necessary to control the remainder of the problem.

1. Allergen Avoidance

To date most studies have shown that neither vigorous house cleaning nor mite extermination affects the mite population. Thus there are no reliable methods to minimize the effect of house dust induced allergy. However there are ways to minimize the effect of the mite on your animal by using allergen avoidance. First and most effectively the dog can spend more time outside. In fact one way to assessing whether or not a particular animal would potentially benefit from hyposensitisation is to keep it outside or in kennels for three to four weeks and assess the response. If there is little improvement with this then hyposensitisation is unlikely to provide major relief (if house dust mite is the only reaction).

- Keep the dog in uncarpeted areas
- Decrease the amount of carpeted area.
- Keep your animal off areas of intense mite build up i.e. beds or couches.
- Have your pet sleep on a vinyl covered bean bag or other dust mite impermeable bed.
- Wash bedding weekly in extremely hot water-more than 70 degrees C.
- Put your pet outside while vacuuming.

2. Symptomatic treatment

Please discuss this with your dermatologist or referring veterinarian.

3. Immunotherapy

See handout on immunotherapy.