
Understanding Allergy



The function of the immune system is to protect the body from foreign invading substances. Immune cells produce antibodies and release chemical messengers or “inflammatory mediators”, such as histamine and 5HT which cause redness and irritation. Allergy is the over-reaction of the immune system to some foreign substances.

The Causes (Allergens)

Allergens can enter the body by the following routes:

- 1 Parasites - particularly fleas injecting their saliva - probably the most common cause of skin allergy.
- 2 Contact - walking or lying on grasses, floors and furniture or their cleaners
- 3 Dietary - ingested meat and cereal proteins
- 4 Inhalation - pollens and house dust

Many allergic animals are sensitive to more than one substance.

Allergic Dermatitis

Contact with some allergens starts an inflammatory response in the skin. If it is great enough the pet licks or scratches further inflaming the skin, releasing more inflammatory mediators. The scratching is often pleasurable and an itch-scratch cycle starts.

Continued scratching the skin with resultant infection and worsening irritation.

Diagnosis of Allergic Dermatitis

The initial suspicion may depend on failure to find any obvious cause of itch on skin examination. Surface scrapings fail to reveal parasites or fungi, deeper biopsies may suggest an allergic type response. History may also be important - allergies involving pollens and fleas are often seasonal. The distribution of the itch over the skin may suggest a cause eg. over the flea feeding sites.

For a more positive diagnosis blood may be taken to test for antibodies or the skin can be “patch tested” to assess its reaction to minute injections of antigen.

Pets with an allergic dermatitis are characterised by those that start licking and scratching with no obvious

Allergic Bowel Diseases

Food allergy with associated bowel disease is probably more common than we think since it is less visible than skin disease. Many diarrhoeas, particularly large bowel diarrhoeas may be due to food allergy.

Treatment of Allergy

There are three possible approaches:

1. Avoidance. Determine the allergen(s) by testing or trial and error and avoid them. Often very difficult. Only dietary and parasitic allergies can really be avoided.
2. Reduction of response - the most common approach using anti-inflammatory.

3 Desensitisation - stopping the overreaction of the immune system by “tiring” it with numerous injections of the allergen - expensive laborious and with variable success.

Medications used

Insecticides

Since fleas are the most treatable and common cause of allergy, it is usual to initiate a flea control program to rule them out first.

Diets

If flea control appears unsuccessful, it may be worth assessing the effect of diet as the only other avoidable allergens. There are available hypoallergenic diets containing only unusual proteins. Such diets must be fed exclusively and it may take months for the effects to be seen.

Antihistamines

Although histamine is not an important inflammatory mediator in dogs and cats it does play a role. Antihistamines will therefore reduce itch. The mild sedation they may also cause can be helpful in control of the itch scratch cycle.

Evening Primrose Oil (EPO)

The supplementation of certain fatty acids contained in oils can stimulate the production of natural anti-inflammatory, the prostaglandins. Oil from the Evening Primrose has a balance of essential fatty

Allergies are rarely cured and rarely go away. At best they are satisfactorily controlled.

Your Pet's Treatments

acids (EFAs) best suited to skin prostaglandins. Veterinary EPO usually has a modified balance of EFAs to optimise performance.

Shampoos

Washing itchy skin provides relief partly by removing irritants and partly by soothing. Shampoos containing Oatmeal are particularly effective.

Antimicrobials

The scratched skin can become invaded by bacteria and yeasts which can themselves further irritate, adding to the itch scratch cycle. The use of antibiotics and antifungal / antibacterial shampoos is often indicated.

Steroids (cortisone)

Cortisone is able to suppress the immune system profoundly and greatly reduce inflammation. Prolonged use can result in side effects (muscle weakness, hair loss, blood mineral imbalances, liver disease etc) making them unsuitable for the long term control of all but the most severe allergies. Where steroids must be used short acting drugs used intermittently can minimise side effects.

Allergic Bowel Disease

Diet trials may control the vomiting or diarrhoea of allergic bowel disease, but some patients need steroids in addition.

Parasite Control

Diet Trial

Shampoos & Applications

Non Steroid Anti-inflammatories

Steroids

Other Treatments

Next Examination

Your Pet's Allergy



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