Airborne Allergies

Atopy

Just as airborne allergy is common in people; it is also common in dogs and cats. Common allergens are pollens, dander, grasses, trees, and fabrics; any airborne particle can potentially become an allergen.

Features of Atopic Dermatitis

- Atopy usually produces a seasonal itchiness though after several years, the duration of the itchy period extends. Finally, the pet is itchy nearly all year round.
- Seasonal itchiness due to atopy tends to begin early in a pet's life (between ages 1 and 3). Flea allergic dermatitis, the other prime cause of seasonal itchiness, tends to begin later (between ages 3 and 5).
- Itchiness due to atopy responds rapidly to cortisone-type medications prednisone, depomedrol, dexamethasone, azium etc.)
- Atopy may produce characteristic changes on biopsy samples.
- Atopy is associated with irritation in certain parts of the body. In dogs, these areas are:
  - In cats, the allergic pattern may be facial, may be reflected as hair loss, or may show as a rash of tiny seed-like scabs (called miliary dermatitis) in various areas of the body.

What to do for Atopic Dermatitis?

Prednisone (and other Related Steroids)

These cortisone-type medications tend to be useful as the first line of defense against itchy skin. A higher dose is used at first but this is quickly tapered down once the condition is controlled. Prednisone is given every other day so as to allow the pet one day of recovery from the prednisone's hormonal actions. An atopic dog will respond within days. For cats, long-acting cortisone-type injections are most frequently used as cats are frequently not amenable to taking pills.

Problems arise when the pet's need for itch control demands excessive use of prednisone. Prednisone is a hormone, affecting all body symptoms. Side effects include:

- excess thirst
- excess appetite
- urinary incontinence
- muscle breakdown
- immune suppression
- termination of pregnancy
- inflammation of the pancreas
- lethargy/panting

If your pet has an unacceptable side effect, you should consider trying alternative therapy for itchy skin.

If your dog requires more than two depomedrol injections annually or is on every other day prednisone more than 4 months out of the year, you should consider one of the following:

- Alternative therapy
- Further diagnostics
  - (There may be a more specific treatment for your pet)
- Referral to a specialist
- Continued steroid use but with monitoring tests
  - (annual blood panel, re-check exam, and urine checks 3 to 4 times a year)

Cats are more resistant to the negative effects of steroid hormones thus they are able to take long acting injections as frequently as every three months. If a cat seems to require an injection every other month, efforts should be made to seek an alternative form of management.

Alternatives to Steroids

There are many alternatives to prednisone; unfortunately, none produce as reliable a response.

Antihistamines - These are far less harmful than prednisone but only 10% to 20% of dogs will respond to any given antihistamine. Our hospital uses a testing protocol using four antihistamines, showing benefit to approximately 30% of the dogs who try it. Animals that cannot get by on antihistamines may be able to lower their prednisone requirement when using antihistamines together with prednisone. It should be noted that antihistamines are far more effective in cats than in dogs. Reliable itch control is frequently obtained but the down side is that the cat in question must take medication twice a day, potentially indefinitely.

Fatty Acid Supplements - These products are NOT analogous to adding oil to the pet's food. Instead, these special fatty acids act as medications, disrupting the production of inflammatory chemicals within the skin. They are often used in conjunction with antihistamines.

Cyclosporine (Atopica®) - This is a new product for dogs (not approved for cats). It is a pill shown to be as effective as prednisone for the treatment of atopic dermatitis. This product, which modulates the abnormal immune reaction in atopy, has been a true breakthrough in reducing the need for steroids. It is a relatively expensive medication compared with steroids but does not lead to long term debilitating side effects as steroids can.
Topicals - Dips, soaks, shampoos, and ointments may also be a helpful addition to one's anti-itch armament. The disadvantage is that these products must be used two and three times a week.

Hyposensitization?
Just as people have allergy shots, so can pets; however, the process is not without difficulty and one should not expect hyposensitization to end all itchy skin concerns.

- Allergy shots require approximately 6 to 12 months to begin working.
- 25% of atopic dogs will not respond (these are usually the animals allergic to multiple allergens.)
- 25% will require prednisone at least at some times.
- You will have to give the allergy shots yourself.

Is Your Pet a Candidate?
Testing is best done during your pet's non-itchy season (if there is one) so that the skin responses of the test will not be clouded by active inflammation. The test involves injections of small amounts of allergen extracts into the skin. Reactions noted are compared to reactions produced by two controls: pure histamine (very inflammatory) and pure saline (very non-inflammatory).

In order to take the test the following medication withholding schedule should be followed. Your dog may not have had:

- Depomedrol injections within 8 weeks
- Vetalog injections within 6 weeks
- Antihistamines within 1 week
- Topical steroids (such as panalog) for 1 week
- Oral steroids (such as prednisone) for 4 weeks

Guidelines for cats are generally more strict. Check with a specialist for their recommendations.

These requirements come from one board certified dermatologist; other veterinary dermatologists may have other requirements. It is often useful to have ruled out food allergy with an elimination diet trial prior to the skin test as food allergy/intolerance responds much more rapidly to diet correction than atopy does to hyposensitization. Food allergy and atopic dermatitis both present a similar distribution of itchiness and can be difficult to distinguish.

Allergic skin testing is generally performed by only by specialists.

You May Hear about Blood Testing
As an alternative to skin testing, several blood tests have been developed to check for the presence of allergy-type antibodies in the blood. These tests can be submitted by any veterinarian (no specialist need be involved) and drugs need not be withheld prior to testing (though the test may not be valid for animals that have had hyposensitization in the past). This type of testing is fraught with controversy. It appears that the results of such tests do not correlate well with the results of skin testing (our traditional test). It is difficult to say how this kind of testing will ultimately fit in to the treatment of atopic dermatitis but seems best at this time for animals suspected of having inhalant allergies who simply cannot go without medication, who have negative skin testing, or for whom skin testing is unavailable due to other reasons.

Copyright 2007 - 2008 by the Veterinary Information Network, Inc. All rights reserved.

This article is also available to your clients on our veterinary client site, Veterinary Partner at http://www.VeterinaryPartner.com/Content.plx?P=A&A=597. If you'd like to send the article to a client just open the article (click the above link) and click 'Email article'.