

Veterinary Specialists Inc.

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CANINE AND FELINE ATOPY

- ❖ What is atopy?
 - Atopy also called: inhalant allergies, pollen allergies, environmental allergies
 - Atopy is a genetically determined skin disease in which a pet is allergic to substances in the environment. These substances, called allergens, can include dust particles, molds, plant fibers, plant pollens (i.e. grasses, trees, weeds), animal particles, and other environmental particles. Exposure to allergens can occur by breathing the allergen or contact on the skin. It is believed that the pet's immune system reacts in an abnormal way to these allergens by leading to excessive itchiness. A pet will usually begin to show signs at 1-3 years of age. However, it may present in a pet younger than 1 year of age or greater than 3 years of age. There are certain breeds in which we see atopy more commonly.

- ❖ What are the clinical signs seen in a pet with atopy?
 - Pets will show signs of itchiness (scratching, rubbing, biting, chewing or licking). The skin then becomes red and develops small bumps or crusts. Hair loss and sores develop as a result of continued scratching. Body locations affected include face, feet, between the toes, ears, neck, abdomen, underarms, groin and tail. The signs are not the same in all pets. Some only have itchy feet, or only itchy ears/ear infections- while others itch in many areas. Secondary bacterial and yeast infection of the skin and ears is very common. These infections can also make the itchiness worse.
 - Itchiness may initially be seen on a seasonal basis (i.e. spring and summer- the warm months) with diminishing of signs in the fall and winter. However, it is more common, especially in the state of Florida, to see itchiness year round in your pet.

- ❖ How do we diagnose atopy?
 - **Atopy is diagnosed in part by excluding other itchy skin and ear diseases.** This includes eliminating causes as mites, fungal infection, bacterial infection, parasites (flea allergy), contact allergy and food allergy. Food allergy can mimic atopy, so you may find that your veterinarian will need to first do a food trial to rule this out.
 - Once all these causes are excluded and in combination with a suggestive history and typical physical examination findings- then a diagnosis of atopy can be made.
 - It is not uncommon for an atopic pet to have other allergies- as flea and food allergy at the same time.
 - Unfortunately, there is no single simple test that confirms or rules out a diagnosis of atopy. Blood allergy tests or skin allergy test ARE NOT tests to diagnose atopy.

- ❖ What is intradermal skin testing or allergy skin testing?
 - Once a diagnosis of atopy is made, an intradermal skin test is recommended. **This test is not a diagnosis for atopy.** This test is only done to see what your pet is allergic to in order to formulate an allergy vaccine to desensitize your pet of its allergies.
 - In this test, the pet's hair on the side of the chest is clipped. A small amount of allergens is injected into the skin and then observed for a reaction- usually a red wheal or bump. Allergens tested include weeds, grasses, trees, insects, molds and house dust/house dust mite.

Some of the allergens tested are for what is typically found in the region of the state you live in.

- Usually pets may need to be mildly sedated in order to properly perform the test.
- Why we emphasize that an intradermal skin test is not a diagnosis for atopy is because 10-15% of normal pets (with no skin disease) have been shown to produce positive results on a skin test. This is why a systematic and proper diagnosis of atopy must be made- meaning exclusion of other itchy diseases and proper history and signs.
- It is also important to keep in mind that 10-30% of pets that are correctly diagnosed as atopic do not show a reaction to a skin test.
- Thus the importance of this test in a pet that is properly diagnosed as atopic is that it allows making an allergy vaccine for hyposensitization or desensitization (see further below in treatment section).
- Certain drugs (i.e. steroids) can interfere with obtaining positive results on a skin test, therefore your veterinarian will advise you of the withdrawal time needed for these types of medications.
- Intradermal skin test is considered the gold standard test. It makes sense, since it is testing the organ that is affected—THE SKIN.

❖ What is serology or blood allergy testing for atopy?

- This is a test in which a blood sample is taken from your pet and tested to see if your pet has high levels to certain allergens.
- There are various labs that run these tests, with various methodologies. Reproducible results are uncommon. However, it can provide useful information when performed and interpreted properly. Some veterinarians use this test only or in combination with skin allergy testing.
- For the most part this test is not affected by drugs as is the skin test. Thus its use may be reserved for those atopic pets that cannot be taken of these drugs.
- An allergy vaccine can be made based on results of this test.
- This test can also be used for pets properly diagnosed as atopic and that do not show positive results on a skin test.

❖ Treatment of atopy?

- Atopy is a disease that cannot be cured; it can only be managed or controlled. The following are ways in which an atopic pet is managed:
 - Avoidance or removal of the allergic substance from the pet's environment. This is not possible in many cases but should be considered when wool or similar allergens are found on the skin test.
 - Elimination of skin infections: this includes the use of antibiotics and antifungals (which eliminate yeast skin infections). Keep in mind that skin infections can make a pet very itchy.
 - Topical therapy: Topical therapy as shampoos, sprays, rinses and leave on conditioners may be necessary to eliminate infection. However, topical therapy can also provide relief for your pet's itchiness- by removing allergens from the skin and cooling the skin.
 - Antihistamines- this can help with your pet's itchiness. However, only 20-30% of pets will respond. There are various antihistamines, and lack of responsive to one type of antihistamine does not mean lack of response to others.
 - Fatty acids- this can also help with your pet's itchiness. There is usually a lag phase of 4-6 weeks to see any effects.

- Steroids- can be also used to provide relief for itchiness. This can be given orally or topically. It is used with great caution and reservation as long term use can have undesirable side effects.
- Cyclosporine- this is a drug that has been recently used to treat atopic pets. It is a drug that has been used at very high doses in patients that have received organ transplants, in order to prevent transplant rejection. However, its use for atopy both in animals and humans is at lower doses. It downgrades the “chemicals” that lead to itchiness in your pet. This drug is used with great reservation- and left to use in the most serious of cases. Your veterinarian will explain more.
- Hyposensitization or allergy vaccine shots
 - This is a series of injections of increasing quantities of allergens given under the skin of your pet. The proposed theory behind its use in treating atopy is that it modifies the immune system so that it no longer over reacts to these allergens. It makes the pet less sensitive to its allergies.
 - Approximately 60-70% of pets will respond to this type of therapy- meaning that there will be a decrease in your pet’s itchiness and skin/ear infections. **But it is not a cure!**
 - It is very rare that a pet will have total elimination of its itchiness, but it certainly does provide some reduction. Reduction to a level that is bearable or at least easier to manage.
 - Most pets will begin to show a response in 3-6 months, but an entire year needs to be given to evaluate the full efficacy of the vaccine.
 - If after a year the pet does not show good results then other methods of therapy will be evaluated- your veterinarian may consider skin testing again or blood allergy testing.
 - The vaccines are given on a scheduled basis, sometimes this may need to be modified on a case by case basis. Owners can be trained to give the shots at home.
 - The younger the dog, the better the response to the vaccines.

❖ What is the prognosis for my pet/ What does the future hold for my pet?

- It is difficult to give a prognosis for a pet with atopy, as each is treated in an individual way. It is important to always remember that this is a lifelong disease. Just like a person with asthma or allergies.
- Proper management of skin infections and the itchiness, along with allergy vaccines can make an enormous difference in your pet.
- Rarely does a single medication control allergic signs. Most pets need a combination of therapies and this varies with each pet and may vary with the season.
 - In the initial phases of controlling your pet’s allergies it will take a large part of your time, efforts, and yes- money. However, with patience and positive optimism and close cooperation with your veterinarians- we hope to provide relief for your pet!