CANINE ATOPIC DERMATITIS

Canine atopic dermatitis (allergic dermatitis, canine atopy) is an inherited predisposition to develop allergic symptoms following repeated exposure to otherwise harmless substances, "allergens", such as dust mites, dander or pollen. Most dogs begin to show their allergic signs between 1 and 3 years of age.

Atopic dogs typically demonstrate pruritus (itching) by scratching, licking, rubbing and chewing at certain classic areas including the feet, muzzle, ears, armpits or groin. This can result in alopecia (hair loss), erythema (reddening) and lichenification (thickening) of the skin. It is important to approach the diagnosis and treatment of atopic allergy in a methodical way by treating any bacterial or yeast infections and parasitic diseases that may be coexisting problems. In many cases these additional problems can have an additive effect which causes an animal to itch when the allergy alone would not be enough to cause itching. Eliminating these treatable problems may eliminate or significantly reduce a dog’s itchiness. Ruling out these problems initially permits the dermatologist to begin testing for allergens including airborne-allergens (pollens of weeds, trees and grasses, dust mites, molds, and danders) as well as allergens in food.

Diagnosis: Atopic Dermatitis is diagnosed by a combination of finding the typical signs and history in conjunction with the use of specialized tests such as hypoallergenic food trials and intradermal skin tests. Specific diagnosis of allergens causing atopic dermatitis is based upon the results of intradermal testing and/or in vitro (blood) testing. Many medications which are commonly used by veterinarians to symptomatically treat the itching can interfere with our ability to properly test your pet. The length of time that a medication's effect remains in an animal's body is highly variable; however, these are basic guidelines for withdrawal of medications: At least 4 weeks off oral prednisone; 10 weeks after triamcinolone acetonide injection; 14 weeks after methylprednisolone acetate injection; 10-14 days off antihistamines; possibly 10-14 days off topical steroids (ear drops, ear drops or medication for skin); 2 days off certain tranquilizers that have antihistaminic properties.

Treatment: THERE IS NO CURE FOR ALLERGY. Therefore our goal is to utilize multiple techniques to provide the allergic pet with a comfortable and manageable quality of life. A safe program may include a combination of the following methods:

1) Avoidance of the allergens - This can be particularly helpful for house dust mite allergies. Techniques for avoidance of house dust mite allergens is similar to programs used for allergic people and are discussed in another handout. Exposure to plant pollens can be reduced by using air-conditioning and air filters, avoiding the outside during the early morning and late afternoon, wiping down with a moist towel after going outside, and frequent bathing.
2) **Antihistamines** - These medications help in about 20% of atopic patients. Antihistamines are of variable benefit. Your pet can take antihistamines safely for life if one is found to be of benefit. Several types may be tried to find the one best for your pet. The most common side effects usually noted by pet owners are drowsiness or nervousness. Topical antihistamines or anti-inflammatories for the eyes can be helpful in patients with allergic conjunctivitis (eye allergy).

3) **Oral Steroids** (prednisone, cortisone, triamcinolone, etc) – Steroids, due to their efficacy in rapidly resolving the itch and inflammation associated with allergy, are commonly used by referring veterinary practitioners as well as dermatologists. However, these drugs have many potential negative side-effects, especially when given frequently or chronically over a long period of time. We typically reserve their use for adult animals, those with short seasonal problems and where other therapy is not possible or is ineffective. Treatment is usually started at one dose and then tapered off to every other day usage. By keeping other additive contributing factors (i.e infections) under control it is easier to reduce the requirement for frequent use of steroids. In general, we recommend the total yearly dose of prednisone to be below 15 mg/lb to stay in the safe range for most dogs. We seldom, if ever, recommend injectable forms of steroids due to their potency and long-acting effects.

4) **Topical Steroids** – Employing topical steroids is always safer than oral dosage. The various formulations of these topical products can be very helpful if itching is localized (eg eyes, ears, feet). Sprays are particularly effective in affected localized body regions. Examples include hydrocortisone sprays or triamcinolone sprays (i.e Genesis®). They can be used for more widespread disease in the form of shampoos (i.e Cortisoothe), or leave-on rinses and lotions (i.e Resicort®).

5) **Cyclosporine (Atopica®)** – Awareness of the use of this drug for the treatment of allergy in veterinary medicine has increased over the past years. Originally used to prevent transplant rejections in humans, cyclosporine is an immunosuppressive agent that can be used at low doses to treat allergy successfully in over 60% of canine patients. It can also be used to lower needed dosages of steroids. The major short-term side effect is gastro-intestinal upset although other side-effects have been reported in research and anecdotally. The long-term safety is not completely known. As with other immunosuppressive agents, the therapeutic goal is to wean to the lowest effective frequency and dose of administration.

6) **Fatty acid supplements** - Certain types of oils can reduce allergic symptoms in some patients. We can give fish oil capsules in conjunction with a low-fat diet or prescribe special prescription diets with high content of these oils. The addition of high levels of these fatty acids may work synergistically with antihistamines to improve reductions of itch in some of our patients.

7) **Allergen Specific Immunotherapy** - This involves giving an allergy “vaccine” injection that is designed specifically for your pet, and is usually given for the lifetime of the animal. The formulation of the immunotherapy vial(s) is designed by evaluating the results of intradermal skin testing or serologic testing in conjunction with the clinical history of the individual patient. After an initial series of injections, periodic boosters are needed (every 1-3 weeks). 60% to 80% of dogs will improve with this treatment, but full results may not be seen for 3-6 months. When results are not seen in 9-12 months, a re-evaluation is necessary.

8) **Bathing** – The skin of atopic patients is sensitive and subject to drying which can increase itchiness. Current research in human and veterinary dermatology has focused on the presence of a “barrier defect” in the skin of atopies. Only specially designed hypoallergenic shampoos should be used on your allergic dog. Rinsing should be thorough. While hypoallergenic moisturizers and cream rinses are often recommended following bathing, many of the modern prescription shampoos and conditioners are designed with moisturizing products incorporated to introduce moisture into the skin as well as the surface.
INSTRUCTIONS FOR YOUR PET:

1. **Topical Therapy:**
   A. Locally _____________________________________________________________

   B. Whole body __________________________________________________________

2. **Bathing Protocol:** Bathe at least once a week with ______________. Lather 5 minutes, rinse very well. Follow with a spray or cream rinse (_____________) to rehydrate as indicated.

3. **Systemic Therapy:**
   A. **Steroid therapy:** Give ____ mg of ______ once a day for _____ days, then _____ mg once a day for ______, then ______ mg every other day for ______ days.

   B. **Antihistamine therapy.** Give ______________, _____ mg once ____ or twice ____ a day, indefinitely.

   C. **Cyclosporine therapy.** Give Atopica©, ___ mg or ml, once ____ or twice ____ a day, 2 hours before or one hour after a meal.

4. **Fatty Acid Therapy:** Give _____ capsules, daily with food or use ________ prescription diet.