

## Skin allergy management at Vets@Woollahra

Skin allergy is one of the most common reasons pets are presented to veterinarians. We all know what an incessant itch feels like and our pets cannot rationally resist the urge to scratch. The subsequent self trauma that occurs from allergies leads to inflammation, yeast infections, seborrhea [oily, flakiness to the skin] and secondary skin infections.

Allergies in dogs and cats are multi-factorial but can be divided into four categories:

- Flea allergy dermatitis [FAD]
- Contact allergies
- Food intolerances
- Atopy [inhaled allergens such as dust mites, pollens etc]

Each individual's allergy susceptibility can be made up of varying proportions of these components. Some components may be easier to treat than others. Because allergies are cumulative and the impulse to scratch is governed by a specific level of allergy load unique to each individual, managing the allergy levels that can be controlled in a specific case can lead to an overall smaller cumulative allergy load that will be less likely to trigger the individual's "itch/scratch threshold" and cause that dog/cat/person to scratch. For example, a pet with a diagnosed atopy problem can sometimes be well controlled on a hypoallergenic diet and optimum flea control despite most of their problem being due to inhaled allergens, simply because the overall allergy load is lessened.

It is essential for most pets who are scratching to be professionally examined and assessed prior to recommending a treatment protocol. Unlike fleas, which can be seen in a pet's coat, other parasitic skin infestations such as demodectic or sarcoptic mange mites can only be diagnosed on a skin scraping, and fungal or bacterial infections also need to be treated or excluded before underlying allergies can be fully addressed and effectively managed. Hot, humid summer weather encourages the development of secondary yeast and bacterial infections in skin fold areas, ears and feet, and may necessitate the use of prescription medication.

As with allergies in humans, there is no cure for your pet's allergy. The solution is effective and best practice management of the allergy, achieved through identifying the underlying causes, minimising exposures and controlling outbreaks when needed.

Some of the methods we use are explained further below:

### **Flea control:**

In the temperate to semi tropical Australian climate, flea control needs to be used all year round for it to be effective. In high density urban areas there is a constant seeding of the environment [both indoors and outside] with flea eggs and therefore a continual re-exposure of pets and perpetuation of the flea life cycle. Within a few hours of an adult female flea being in a pet's coat, she has had a blood meal, mated and is shedding thirty eggs an hour into the environment. Once flea eggs are in the environment control is limited until the life cycle of the flea allows the eggs to hatch, progress through

larval and nymph stages to adulthood when they jump back onto the pet. This can take between 2 and 6 weeks depending on temperature and humidity and is the reason why continual flea control product application is essential. Removing the pet from the affected environment will only highlight the problem as the fleas, who must feed, will then infest humans in that environment: the best solution is to use your pet as the flea indicator for the environment and to treat it appropriately.

Spot-on flea control products still provide the best possible ongoing flea protection and should form the basis of ongoing flea control. Frontline, Advantage/Advocate/Advantix and Revolution are all effective when used according to directions. All are designed to be used monthly but can be applied with more frequency if necessary following veterinary advice. They all have a surfactant type base which distributes the product over the coat and allows it to move into the hair follicles, where it is "stored" and re-discharged onto the coat whenever the surface oils are disturbed through grooming, bathing etc. The insecticides in these products do not kill fleas instantly. At any given time when the coat is inspected, fleas may be seen, but they have been exposed to the insecticide and are mortally affected. The longer the time interval since the previous product application, the longer this lethal process takes, so occasionally a female flea can successfully lay eggs before she dies. Spot-on products take 24-48 hours to fully distribute over the body so there can be a delay in their insecticidal activity when first applied.

If there is sudden increase in flea exposure, adjunctive insecticides can be administered to counter the increased flea burden or to provide faster insecticidal action while a spot-on product is dispersing through the coat.

Capstar is a single dose oral insecticide which rapidly kills any adult fleas that feed on the pet and lasts 24 hours only. It can be purchased without prescription and used as frequently as necessary to boost flea control in dogs and cats between spot on product applications.

Frontline is available as a spray on application [as well as the spot on formulation] that begins working immediately in situations of infestation where an immediate kill is required. It is also registered for tick protection when used fortnightly.

### **Cortisone:**

The anti-inflammatory action of cortisone has been used for many years to control pruritis/itchiness in dogs and cats. It is a potent anti-inflammatory agent which produces significant side effects, particularly when used for prolonged periods of time. Diabetes and Hyperadrenocorticism [Cushings disease] are the most important and debilitating of these, requiring expensive lifelong treatment and management, but even short term courses of cortisone can be debilitating, causing lethargy, increased thirst and urination, weight gain and the risk of immune system suppression. For these reasons, our aim is always to minimise the amount of cortisone your pet is exposed to. Sometimes short term courses of cortisone are required as part of a management plan for allergy but we will always stress to you the importance of using the minimum amount necessary

and the value of other adjunctive therapies. Where prolonged cortisone use is necessary, it is essential that regular blood testing is undertaken to monitor potential side effects on the body's metabolism. Cortisone is a prescription drug, cannot be re-dispensed without direct veterinary involvement and only within strict time frames.

### **Antihistamines:**

In some cases, antihistamines can provide pruritis relief but their effects are variable and some patients will experience drowsiness or lethargy. They can sometimes be used to reduce the dose of cortisone required to control atopy and some are available without prescription. We can advise you of suitable brands and dosages if necessary.

### **Shampoos:**

The use of oatmeal shampoos such as Aloveen [which also contains Aloe vera] and Epi-soothe is a safe and cost effective method of soothing itchy skin. Prolonged skin contact produces the best effect and the emollient nature of these shampoos mean they can be used very regularly without drying the skin. Their use is labour intensive but they have no side effects and the hands on nature of the treatment can be a bonding experience with your dog! Oatmeal conditioners can prolong the soothing effect. Regular use may necessitate increased application frequency of flea control spot-ons. Other shampoos with specific dermatological applications [Malaseb for yeasts, Pyohex for bacterial infections] may be needed for initial treatment.

### **Hypoallergenic diets:**

Diet can play a significant role in an individual's allergy complex. It is important to remember that cats and dogs with food allergy/dietary sensitivity are reactive to protein sources in their diet whether it be chicken, beef, mutton, lamb, pork etc. Using an elimination diet for up to three months may be necessary to gauge whether dietary allergy is part of your pet's allergy complex.

This involves using a novel protein source that the body has not developed sensitivity to as a screening test. The elimination diet must be given exclusively with no treats or other food whatsoever. The easiest way to do this is to use a formulated allergy diet such as Hills z/d which ensures that all dietary requirements are met while avoiding the allergic reaction. Hills z/d achieves this through hydrolysis, a cooking process by which the proteins in the food are broken down into segments too small to cause an allergic reaction [a similar process to that which is used to manufacture formula for babies allergic to milk proteins]. Some pets with food allergy need to remain on this diet permanently, while others can eventually be introduced to diets containing some plant proteins. A diet trial requires the whole family and all contacts with the pet to be involved and to adhere strictly to the diet. These diets will help to minimize antigen load.

### **Skin and blood allergy testing:**

Allergy testing is available to identify specific allergens such as dust mites, fleas, pollens and grasses. This can be useful in severe cases of allergy is to identify the allergens so that a de-sensitising vaccine can be formulated. This vaccine is made up of the allergens specific to your pet and is administered [by you, or us] weekly for six to nine months [or longer] to gradually desensitize the body to the reactive allergens. In effect, the body gradually forgets its allergies. This is a similar process to desensitization in people with allergies but is not a miracle cure and needs to be considered as one part of overall allergy control. Desensitized dogs will still need other intervention at times when the allergen load is high such as hot, humid summer weather or change of season, "hayfever" times and for some, the desensitization process is ongoing.

As with humans, allergy testing can be performed by skin testing or by blood testing. Our preference is for the former, because it is performed by a specialist veterinary dermatologist as part of an overall skin allergy work-up. Because allergy testing by either method is involved and expensive, as is the ongoing desensitising vaccination program, it is a good idea for a veterinary dermatologist to initially assess your pet, exclude other causes of pruritis and irritation [such as flea allergy dermatitis, mites, secondary infection or food allergy: sometimes more unusual metabolic or immune system problems can also be involved] and fully investigate your pet's condition. Sydney currently has two specialist veterinary dermatologists who consult through the veterinary teaching hospital at Sydney University. Referral appointments can be made upon request.

### **Atopica:**

If, after excluding other forms of allergy, a diagnosis of atopic dermatitis is made, Atopica, an oral non-steroidal cyclosporin prescription treatment targeting immune cells involved in the allergic reaction by selectively modulating their response, may be used. It can have side effects, but may be preferable to cortisone for long term ongoing treatment. Its drawback is its perceived expense which can often be reduced over time with response to treatment and reduced dosage. It also needs to be administered at specific times related to meals.

If you would like to formulate or review a skin allergy control program, please contact us.