Volume 4, Issue 2, Spring 2001

Dermcare-Vet

Derm News

Whats news at Dermcare....

CONTACT US AT:

Dermcare-Vet Pty Ltd
22 Aranda St
Springwood Qld 4127
Phone: 07 3387 9700
Fax: 07 3208 3965
www.dermcare.com.au

SALES CONSULTANTS:

Ian Fontaine:
(NSW/SA/WA)
Mobile: 0417 248 518
Fax: 02 9953 5360
Email:
ianfontaine@bigpond.com

Paul Kimberley:
(VIC/TAS)
Mobile: 0416 251 937
Email:
kimberlp@primus.com.au

Alice Cooper:
(QLD/NT)
Mobile: 0419 773 376
Email:
alice.cooper@dermcare.com.au

In this issue:

ATOPY

(ALLERGIC INHALATION DERMATITIS; GRASS ALLERGY)

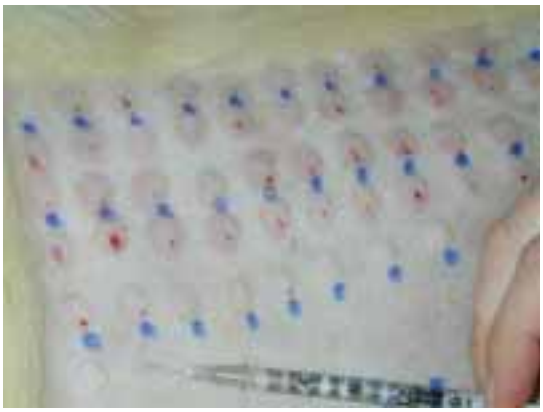
What is it?

Atopic disease is a genetically programmed disease causing dogs to develop IgE sensitising antibodies to normally innocuous environmental substances. Typically these are pollens of grasses, trees and weeds, mould spores, house dust mite particles and other insects. It is becoming a frequent disease with between 3-15% of canine population affected. It is now the second most common allergic skin disease. These allergens may be absorbed via mucosal surfaces (e.g. inhaled) and/or cutaneously absorbed.

In the normal animal, IgE protects against parasites and is only produced in parasitic diseases, however atopic animals also produce inappropriate IgE to environmental allergen to which the normal dog would not respond. Once sensitised further exposure results in the allergen linking the IgE on mast cells causing mast cell degranulation and clinical signs.

How do you diagnose it?

Atopy is diagnosed by ruling out other diseases with similar signs and by demonstrating immediate type hypersensitivity to environmental allergens consistent with the clinical signs and history.



Intradermal Skin Test (dog)

The signalment and history reveals signs first occurring in an animal between six months and four years of age. Most breeds may be affected, although in Australia, Jack Russell, West Highland White and Staffordshire Bull Terriers are more frequently affected. Although females are quoted in some studies as being more affected, the disease occurs in both sexes.

The history may be seasonal initially, but frequently in Australia, all year round signs are encountered. This of course depends on the seasonality or occurrence of the dominant allergens. Indoor allergens like house dust mites occur all year round whereas many tree and grass pollens occur at particular times of the year (a pollen chart is available upon request from Dermcare-Vet).

The predominant clinical sign of atopy is pruritus. Primary lesions of urticaria or macules and erythema may occur but most cutaneous changes are a result of self trauma. Pruritus may manifest as scratching, face rubbing, foot licking or head/ear shaking. Subtle signs may be excessive rolling on the lawn, walking along rough walls, pulling the abdomen along the carpet and tobogganing on perianal skin.

Other symptoms are recurrent otitis (unilateral and bilateral), conjunctivitis, recurrent pyoderma and a temporary response to glucocorticoids. Symptoms progressively worsen with time. The areas most affected are muzzle, pedal, post carpal and tarsal, axilla, groin and pinnae skin. Lesions may start as erythema and urticaria but progress to scale, hair loss, lichenification and hyperpigmentation. Differential diagnoses needing to be ruled out are food hypersensitivity, flea bite allergy and Sarcoptes. Superficial pyoderma and Malassezia infections are secondary infections that complicate the clinical picture. These are usually treated to elucidate their contribution to the signs and reveal the

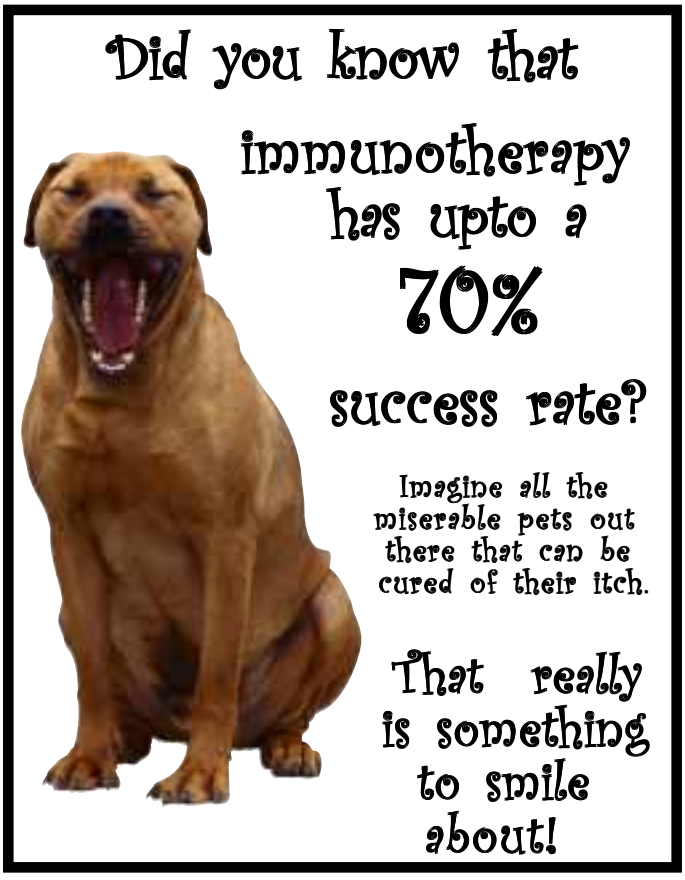
.....Continued page 2

signs of atopy, which is usually an undulating pruritus. This undulation occurs due to the sporadic release of pollens.

Diagnostic Procedures

The two main relevant and useful tests are the intradermal skin test (IDST) and a blood allergy ELISA. The IDST is an ***in vivo*** test where small amounts of allergen are injected intradermally. A wheal and flare reaction occurs 20 minutes later. Serological allergy tests measure allergen specific IgE antibody in the patient's serum. Both tests are commercially available in Australia. The IDST has the advantage of immediate availability of results, and greater versatility in available antigens. Up to 80 antigens are included in a test, although 60 is usual. It is easily adjusted to urban and rural environments. It has the disadvantages of needing sedation, clipping large area of chest wall and is very susceptible to glucocorticoid interference and chronic skin changes. Some experience is needed to interpret the test.

The blood allergy ELISA is easily performed, just draw blood and send it to the lab. Its disadvantage is the limited number of allergens included. There are several tests available. The only Australian validated test run with individual allergens and with veterinary specialist back up is the **IDEXX/VPS** canine allergy ELISA. This test was developed from the best technology available (Greer USA) and adapted for Australia by ***Dermcare-Vet*** and **VPS** scientists several years ago. This serological product is backed by Dermcare-Vet with free dermatological advice and interpretation if needed. Some commercial serological tests have false positives, this has been minimised in the ***Dermcare-Vet*** - **IDEXX/VPS** test.



Dermcare Offers Free of Charge !

- Advice on value of Immunotherapy for your specific case
- Ask for our clinical information form
- Written response By a Specualist Dermatologist

Both tests are used to confirm the atopic tendency after an appropriate clinical work up and can be used to formulate a hyposensitising vaccine (immunotherapy). Relevance of the test results to the clinical signs and symptoms must be determined by the clinician and this is why the veterinary pathologist and dermatologist support of the **IDEXX/VPS** Canine allergy ELISA makes it the most valuable test for the Australian practitioner.

How do you treat it?

Identification and elimination or control of secondary infection is an important initial step in the diagnosis and treatment of atopy. The next step is to control the pruritus. This can be accomplished by antihistamines (the weakest antipruritic), or glucocorticoids, preferably prednisolone tablets. Long acting prednisolone or strong cortisone injections are very rarely appropriate. Such injections cannot be stopped like tablets when side effects develop or on realising the patient has other diseases like infections and pancreatitis for which cortisone is contraindicated. Neither can they be adjusted to alternate day dosing to allow the adrenal gland to recover.

There are many antihistamines available most of which are also for human use. They are readily available, cheap but only have a weak antipruritic action. Most dermatologists have their favourite type but none are universally effective. They are very useful with prednisolone tablets especially on the off prednisolone day if needed. Prednisolone tablets at 0.5 - 1.0 mg/kg once per day until pruritus settles and then each second a.m., is the most common treatment. It is appropriate for cases that can tolerate it and when symptoms occur for a short period in the summer.

Immunotherapy is appropriate for cases with side effects from cortisone, especially if the dose is getting above the recommended levels, or when the symptoms are for long periods i.e. becoming non seasonal.

Expectations with immunotherapy might be that the requirement for prednisolone is reduced considerably for both dose and frequency or that is eliminated altogether. Some 60-70% of cases will respond to immunotherapy well.

Failure to respond to immunotherapy is caused by several known and some unknown factors. The first is

Continued from page 2.....

a failure to identify and remove or control other allergens i.e. food, contact and especially fleas in flea allergy. (Immunotherapy is not effective for flea allergy.)

A second group of cases failing to respond are those where developing Cushings (hyperadrenocortism) is not recognised. This is especially so in cases with severe secondary infections, with unexpected side effects to low dose prednisolone, or when previously low dose prednisolone worked but not as the dog gets older. Cushings cases under these circumstances are often difficult to recognise and prove.

A third group of cases failing to respond are those with as many as 60 severely positive reactions. Conventionally only 15 allergens can be included in an immunotherapy treatment. Thus local knowledge and history of the symptoms is used to formulate the prescription, along with the level of the score in the allergy test to pick the most relevant allergens. Treating these may then bring the allergen challenge below the pruritic threshold or to a level where antihistamines or low dose alternate day prednisolone is effective.

It is possible to make up two immunotherapy treatments of 15 allergens and inject these at different sites on the patient. This of course doubles the cost. This is necessary in some extremely atopic animals. Another choice is to treat the major allergies, usually summer ones. When summer symptoms subside, reassess the time of year when the symptoms are occurring and with a pollen chart select a new group of allergens to be included. Rotating these in the vaccine, while removing those covering the time of year from which symptoms have abated, is the alternative approach.

Ultimately atopy is a relatively common pruritic disease that is very complex and perplexing for the practitioner. Practices with access to a specialist dermatologist are able to learn quickly by following referred cases. Other practitioners have access to the services of ***Dermcare-Vet*** and **IDEXX/VPS** products that are tested and proven in Australia and supported by specialist pathologists and dermatologists.

Bibliography

- Scott D, Miller W, Griffin G.
  "Muller & Kirks Small Animal Dermatology", 6th Edition. WB Saunders Co. 2001: pp574 - 602.
- Reedy L, Miller W, Willense T.
  "Allergic Skin Diseases", 2nd Ed. WB Saunders 1997.
- Plant J, Reedy L.
  "The 5-Minute Veterinary Consult", 2nd Ed. Lippincott, Williams & Wilkins Co 2000: pp 470-471.

Errors & Ommissions:

Last issue a reference number was ommitted creating some confusion as to the recommended treatment of Dermatophilosis by the author.The Reference "Pascoe & Knottenbelt, Manual of Equine Dermatology, page 105" refers to the use of Chlorhexidine for the treatment of Dermatophilosis. Dermcare-Vet apologises for any confusion this may have caused.

WINNERS

Congratulations! To the winners of the 2001 Super 12 Rugby Comp.The nurses competition was won by, Miss Dani Hatfield (Pictured with Dr A. Dagan) from Balmain Vet Hospital. Dr Geoff Manning from Berry NSW was our lucky Vet.

Desex Demodex cases or your Problems could multiply!

I often get asked about desexing animals with Demodex. Below are a few simple rules I like to follow when considering treatment of these difficult cases.

1. Cases of generalised juvenile onset demodecosis should be desexed as soon as the disease is controlled.

WHY ?

Demodex mites breed up and thus the disease flares up with surges in sex hormones that come with eostrus and pregnancy. It is important to get control of the mites and pyoderma first as the stress of surgery can exacerbate the disease but more importantly, the skin infection occurring with the demodecosis can cause eventration peritonitis and/or wound infections.

2. Adult onset Demodecosis should also be desexed for the same reason, however first find out what is the associated underlying disease as these may affect surgery, i.e. Cushings, lymphoma and other cancers. These can be more of a problem than the demodecosis itself.

Ultimately entire animals are very frequently part of the population that cannot be cured or are hard to control, thus it costs the owner more to treat and is more likely to relapse.

Ken Mason, BSc, MVSc, FACVSc.

For More Information

about immunotherapy or anything else to do with Dermcare, Check out the Dermcare-Vet

Website

www.dermcare.com.au

Dermcare Immunotherapy production Laboratory

Kylie Clarke is our new immunotherapy technician in charge of making all the vaccines, Intradermal skin test kits and diluted allergens for sale to specialists and vets around the country. Kylie is a recent graduate of the University of Queensland and has a Degree in Applied Science (Animal Studies). We look forward to working with her in the future.

Some Dermcare-Vet Immunotherapy Benefits:

- NRA approval for your security and legal liability
- NRA GMP approved laboratory and Manufacturing facility for your peace of mind
- Quality manufacture in Australia to Australian conditions and regulations

State specific intradermal skin test kits are available for purchase through Dermcare-Vet.