Peer Reviewed

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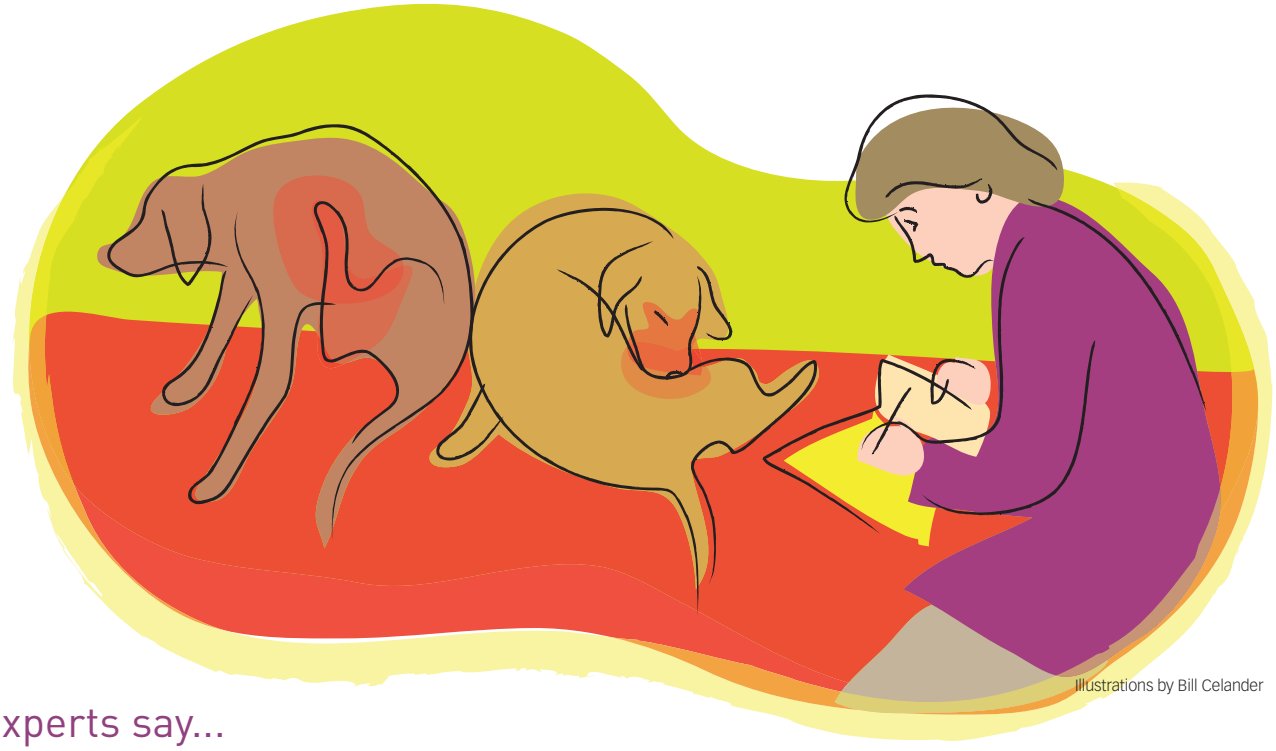
Canine Atopic Dermatitis

You have asked...
What is the treatment strategy for dogs with acute flares and chronic signs of atopic dermatitis?



Illustrations by Bill Celander

The experts say...

There is no simple answer to this question, as each patient needs an individualized treatment plan. With that said, however, the International Task Force on Canine Atopic Dermatitis has published a summary of treatment guidelines.[1]

The article presents 2 common case scenarios: treatment of acute flares of canine atopic dermatitis (AD) and treatment options for chronic signs of this disease. For both scenarios, there are examples of dogs with localized and generalized skin lesions. There are also specific recommendations for each scenario, including the rationale for the recommendations.

The Task Force recommendations are based on available scientific evidence from treatment studies. Each recommendation is based on 2 scores: the **Category of Evidence** score reflects the quality of the study (eg, randomized control study, nonrandomized study) and the **Strength of Recommendation** score reflects whether the therapeutic recommendation will be effective.

The International Task Force on Canine Atopic Dermatitis can be read online at tinyurl.com/atopicdermatitisguidelines.

USEFUL DEFINITIONS

- **Canine atopic dermatitis** is used to describe a genetically predisposed inflammatory and pruritic skin disease with characteristic clinical features associated with IgE antibodies most

CONTINUES

AD = atopic dermatits

Diagnosis of Canine Atopic Dermatitis

The diagnosis of canine AD is a clinical diagnosis based upon compatible history and clinical signs and elimination of other causes of pruritus. The use of allergen-specific serological tests or intradermal tests are used to differentiate AD from ALD, implement allergen avoidance (if possible), and select allergens for immunotherapy.

A phenotype describes what something looks like because of its genetics and environmental influences.

commonly directed against environmental allergens.[2]

- **Canine atopic-like dermatitis** (canine ALD) describes an inflammatory and pruritic skin disease with clinical features identical to those seen in canine AD; however, an IgE response to environmental or other allergens cannot be documented.[2]
- **Atopic dermatitis phenotype** is a constellation of clinical signs that are compatible with what we have traditionally called canine AD. We now recognize that this is a reaction pattern; the goal of the clinician is to determine the etiologic diagnosis (ie, what factors trigger flares).
- **Flare factors** cause a relapse of clinical signs compatible with the phenotype of AD. Common flare factors include but are not limited to:
  - Poor coat and skin hygiene
  - Fleas/fleabite sensitivity
  - Bacterial or yeast overgrowth
  - Environmental allergens
  - Foods.

TREATMENT OPTIONS: Acute Flares of Canine AD

- Identify and avoid flare factors.
- Avoid tunnel vision: Make sure flare has not been caused by nonatopic disease.
- Identify common triggers in a patient with acute relapses (eg, fleas, food, environmental allergens).
- Administer antimicrobial therapy (systemic or topical) if bacteria or yeast are sole triggers or result of flare factors.
- Improve coat and skin hygiene and care (ie, nonirritating shampoos, increased bathing).
- Reduce pruritus and skin lesions with drug therapy: Short-term antipruritic therapy with topical glucocorticoids or short course of oral glucocorticoids
- Determine that microbial overgrowth is not a flare factor or complication. Flare factors consistently cause relapses; complications are more intermittent. Often, they can be differentiated only with time and familiarity with the patient.
- Avoid treatments unlikely to be useful during acute flares:
  - Antihistamines: Poor evidence of efficacy; need to be given before flares
  - Essential fatty acids, tacrolimus, or cyclosporine therapy: Take too long to treat acute flares.

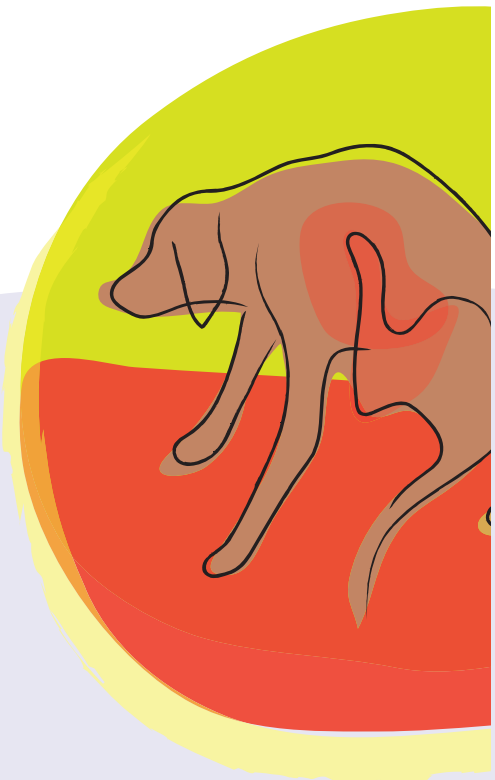
TREATMENT OPTIONS: Chronic Signs of Canine AD

- Identify and avoid flare factors:
  - Food allergens may cause flares in dogs with AD and food sensitivities.
  - Dietary trials should always be considered in nonseasonal cases even if a diet trial was performed previously.
- Avoid tunnel vision: Make sure flare has not been caused by nonatopic disease.
- Implement effective flea control:
  - Evidence exists that dogs with AD

AD = atopic dermatits; ALD = atopic-like dermatitis

are predisposed to flea hypersensitivity reactions.
  - Year-round flea and tick control is especially important in areas where fleas are endemic.
- Perform IgE-specific intradermal and/or serological tests to identify environmental flare factors. These tests can help:
  - Differentiate AD from ALD
  - Identify allergens where avoidance may be helpful
  - Identify allergens for immunotherapy.
- Implement house dust mite control (this is somewhat controversial and may be best used in dogs with house dust mite monosensitivity); may take months before benefits are seen.
- Evaluate use of antimicrobial therapy:
  - Microbial overgrowth is common in dogs with chronic inflammatory skin disease.
  - Some dogs develop IgE-mediated reactions to yeast and bacteria.
  - Long-term management is a challenge and requires use of topical therapies and select case-by-case use of systemic antimicrobial drugs.
- Improve skin and coat hygiene and care:
  - Weekly bathing is soothing to the skin and helps maintain appropriate hydration.
  - Bathing will enhance physical removal of allergens.
  - Frequent bathing with antibacterial and/or antiseborrheic products can dry the skin; moisturizing products may be needed.
  - Dietary supplementation with essential fatty acids may improve coat and skin barrier function over time.
  - There is insufficient information at this time to support the clinical benefit of topical lipid formulations.
- Reduce pruritus and skin lesions with drug therapy:
  - Topical glucocorticoids
  - Topical tacrolimus
  - Oral glucocorticoids and/or modified cyclosporine therapy (modified formulations have increased bioavailability; they are also called proemulsion concentrates)
  - Antihistamines (steroid-sparing effect is unclear at this time)
  - Subcutaneous interferons (have shown some benefit in limited studies in Japan/Europe).
- Avoid treatments unlikely to be useful during acute flares:
  - Type-1 antihistamines lack reliable evidence of efficacy.
  - In small studies, pentoxifylline and misoprostol have been shown to have some benefit but information is limited; their cost or side effects do not justify routine use.
- Implement strategies to prevent flares:
  - Avoid known flare factors
  - Pursue allergen-specific immunotherapy.

See Aids & Resources, back page, for references & suggested reading.



MORE

For more information about diagnosing canine atopic dermatitis, read **Five Questions for a Dermatologist**, published in our June 2010 issue and available at **clinicians brief.com/journal**.

Food Flares

The Task Force on Canine Atopic Dermatitis recognizes that there is some controversy regarding the association between food and canine AD. In the absence of gastrointestinal signs, the Task Force's position is that some food allergies may manifest as the atopic phenotype and be fully or partially responsive to food trials. Some dogs with AD will exhibit flares when exposed to foods, but not all dogs. The Task Force strongly supports 1 or more dietary restriction–provocation challenges in dogs with nonseasonal signs.