



Regional Club Liaison Newsletter

Liaison Coordinator: Judy Howard (beardiebunch@ctc.net)
Editor: Elsa Sell (beaconbb@bellsouth.net)

Itchy Dog

**Vol 2, Issue 1
Winter, 2008**

(Note: see end of article for list of some brand name drugs and definition and reference).

Skin problems are the number one complaint of animal owners, according to pet health insurance associations. At least 80 to 90% of these are caused by infection, ectoparasites (bugs) and allergies.

The itching sensation starts in fine unmyelinated (uninsulated) nerve fibers in the skin. Many different mechanical and chemical irritants can stimulate these nerve endings, and so a single treatment isn't going to help all animals. For example, while histamine may be released from surrounding tissue in response to some stimuli it is not involved in all cases of pruritus (itching). Giving an antihistamine for itchiness from a different cause won't do a bit of good. Sometimes more than one mediator is involved. Other mediators would include interleukins, cytokines and proteases. Some bacteria and dermatophytes (parasitic fungi like ringworm) make proteases – enzymes that digest proteins.

While pain and the sensation of itching are transmitted from the skin by different pathways, they are processed in the same regions of the brain. In some cases, acral lick dermatitis – the compulsive licking of the paws – may start out as a response to a painful condition,

this can resolve and the dog may continue to lick out of habit, and become a behavioral issue. In other cases there may be no causative incident, and it is often dismissed as purely behavioral – a displacement behavior that has got out of hand or a true compulsive behavior. However, it has been demonstrated that in some dogs with allergies, resolution of the acral lick dermatitis may lead to generalized pruritus and scratching. It is thought that the pain created by the licking masks the itching from the allergy.

Most dogs respond to itching by licking, biting, scratching or rubbing and leave it up to us to figure out why they itch. This can be a lengthy process. A thorough physical examination and medical history with particular emphasis on identifying factors associated with the onset or exacerbation of itching is the first step. If your animal has a long term problem, keeping a diary can be very helpful in identifying the underlying cause. Initial testing includes taking superficial and deep skin scrapings; microscopic examination of skin and ear debris, as well as the contents of any pustules; impression smears of skin lesions; and trichograms – examination of hairs for fungal infection.

In This Issue

Itchy Dog	1-2
Itching in Humans	3
Liaison Survey	3
Links	4
Be Aware	4

This newsletter may be copied for distribution to your regional club members.

Itchy Dog, continued from page 1

It is not unusual for several different pathologies to be present. A basic allergy can be complicated by a yeast overgrowth, bacterial skin infection – when opportunistic bacteria infect cuts produced by incessant scratching; or even ectoparasitic infection in a dog with an immune system weakened from struggling against multiple assaults. Allergies can be rather like the proverbial straw that broke the camel's back, they add up until just one tiny bit more pushes the dog over the top into a full blown attack. There is a tendency to treat everything in sight without identifying the primary underlying condition and anything else that is making the dog worse. So, if a dog has allergies, but these have begotten bacterial or yeast infection or a case of mange or flea bite allergy, treat the secondary conditions and once they have resolved go in search of the underlying allergies.

Dry skin generally makes pruritus worse. A humidifier in winter can be a boon to dog skin just as it is to human skin. Colloidal oatmeal products increase the moisture content of the skin, and can decrease itchiness 30-50%, but the effect is short lived. Pramoxine hydrochloride – available as the shampoo Relief or a leave on conditioner or spray is also short lived, but will reduce itchiness 50 to 80%. Shampoos with topical glucocorticoids (steroids) produce 50-100% relief for 48 to 72 hours. If you plan to run allergy skin tests, enough of the steroid may be absorbed to interfere with the test results. Products have been developed from the natural skin lipid phytosphingosine. They are claimed to have anti-inflammatory effects and repair the skin's defense system, control superficial bacterial and fungal infections, but these effects have not been examined in clinical studies.

Antihistamines may be helpful if histamine is involved in causing the dog to itch. Not all antihistamines will help all dogs – diphenhydramine, chlorpheniramine and hydroxyzine are likely to be the most successful. They do have a sedative effect, and this alone may reduce some itching. It should also be noted that a dog's response may change over time.

Essential fatty acids, omega-3 and omega-6 especially, act by modifying the inflammatory response and increasing the production of substances that reduce inflammation.

For dogs with atopic allergies (airborne or contact) glucocorticoids can offer substantial relief, but also serious side-effects, so should not be given long term lightly. They are relatively safe though for short term relief. They are of variable utility though in dogs that are itching as a result of food allergies, yeast and bacterial skin infections and sarcoptic mange.

Atopic allergies also respond extremely well to cyclosporine (Atopica). Absorption is variable and serum levels don't correlate well with relief produced. Long term use can produce an overgrowth of the gums and production of benign papillomas (benign warty growths).

Once the dog isn't scratching himself raw and is relatively comfortable of course, the primary treatment goal must be to uncover and treat the primary cause of the dog's itchiness. An itchy dog is a miserable dog. He also tends to have a miserable owner.

Linda Aronson, DVM

Appendix

You can find more about drugs listed in the article with an internet search. Your veterinarian will likely use compounds formulated for dogs or human drugs in an appropriate dosage.

Antihistamine—a drug which acts against the histamine that is released during an allergic reaction by blocking the action of histamine on the tissue. It does not affect formation and release of histamine.

Antihistamines

- Diphenhydramine—40 Winks, Benadryl, Diphen-dryl, Sominex, Theraflu Thin Strips Multi Symptom, Tusstat, Nervine among many.
- Chlorpheniramine—ChlorTrimeton
- Hydroxyzine—Anx, Atarax, Vistrail

Other reference:

- Is Your Pet Itching for Relief? Among other topics, this article points out that unlike humans with allergies (symptoms—stuffy or runny noses, or watery eyes), dogs' primary response is itching. The primary causes of allergies in pets are : flea, food, atopic (inhalant), and contact. http://www.fda.gov/fdac/features/2004/404_pets.html

Itching in Humans

As a companion piece, I thought it would be interesting to see how several medical focused internet sites dealt with the topic of itching in humans.

1. <http://www.medicinenet.com/itch/article.htm>

Itching may be localized or generalized and it can occur with or without skin lesions (e.g., bumps or blisters). This source lists causes as psychological (anxiety, stress), dry skin, sunburned skin, metabolic, cancer, drug reactions, blood diseases, skin infestations and skin infections. Most people who itch do not have serious underlying causes.

Itching promotes scratching which does little except provide temporary relief. It can cause breaks in the skin which predispose to secondary bacterial infection. Prolong itching can cause thickening of the skin or darkening of the skin.

External treatments.

- Since cold and itch travel the same nerve pathways, application of cold can jam the circuit and provide relief. Cool water (running or washcloth), cool showers, or ice are examples of cold applications.
- Anti-itch creams and lotions. These break, at least temporarily, the itch cycle and spare the skin from breakdown. Hydrocortisone containing creams and lotions work only if the cause is one responsive to steroids—such as eczema or seborrhea. Most steroid containing topical materials are weak and thus don't work well even on responsive situations.

Oral treatments—similar to those listed in Dr. Aronson's article. There are newer non-sedating antihistamines, though these may be less effective.

2. <http://www.nlm.nih.gov/medlineplus/itching.html>
This reference lists causes of itching as allergic reactions, eczema, dry skin, insect bites and stings, contact dermatitis (poison ivy or oak), contact irritants (chemicals, soap, wool), parasites (e.g., pinworms, scabies, head lice), pregnancy, rashes, primary skin infections, and reaction to medications.

Interestingly, there is a problem called "winter's itch" or cold induced urticaria. It happens in those suscepti-

ble after sudden change in temperature (to cold). After exposure, the skin begins to itch, turn red (usually in the exposed area), and swell. Whether dogs can experience cold induced urticaria is unknown—but those of you living in cold climates might watch for the development of itching and red welts (urticaria) with your Beardie's exposure to cold (and let Elsa know). Urticaria can also be caused by exposure to foods, drugs, infection, or insect bites.

3. From the Merck Online medical library—<http://www.medicinenet.com/itch/article.htm>—comes this information.

Skin disorders with severe itching include parasitic infections, insect bites and allergic or contact dermatitis. These are usually accompanied by a rash. Systemic diseases (e.g., liver disease, cancer, kidney failure) associated with itching usually do not have a rash.

Elsa Sell

Liaison Survey

Thanks to nine liaisons for responding. Eight of you volunteered because of interest in health of the breed, having your dogs in the open health registry, a desire to spread information on health issues, or being the only person familiar with BeaCon. The one "appointed" by their club shares those interests. Most have your dogs in the open registry, all read BeaCon's newsletter, and you share health information with club members via email, a club internet list, or meetings. You didn't give us as many suggestions for articles in this newsletter as we had hoped for — but we will work on those offered to the extent possible.

Thank you for taking the time to share the responsibility to help other Beardie owners learn more about health issues of dogs.

Your Regional Club's Website

If your club has a website

- Do you have a link to BeaCon's web site?
- Do you have the link for registration and updating information in the OHR?
- Do you have the link for the Addison's Research Project?

We give permission for clubs to set these links and we also have a link on BeaCon's link page to your site. Please let us know if you change ISP's and therefore your web address.

Be Aware

Many health problems that Beardies experience are not at all unique to the breed; they happen in other breeds too. I always need to explain that fact when someone writes about their dog having certain symptoms and to inquire what causes those symptoms in Bearded Collies.

Certain health problems are known to occur at an apparently higher frequency in Bearded Collies than in some other breeds. One is Addison's disease that affects the adrenal cortex and is an inherited disorder in some breeds that have been studied. Addison's is also more prevalent in Standard Poodles, Portuguese Water Dogs, Great Danes, Westies, Leonbergers and Nova Scotia Duck Tolling Retrievers. The other problem is symmetrical lupoid onychodysplasia (SLO) which affects the nails, usually of all paws. It is unknown whether SLO is a genetic disorder, at least in Bearded Collies. There is ongoing research in Gordon and English setters from Norway on SLO; the data look as if it is inherited on those breeds.

So, if your dog develops symptoms which may occur in either of those two diseases, please alert your veterinarian to the fact that we know they happen in

Bearded Collies. That fact alone may save you and your dog weeks or months seeking a diagnosis at great financial, health and emotional cost. More on symptoms of SLO and Addison's in the next newsletter.

If your Bearded Collie is purebred and has either SLO or Addison's disease, and they are not in BeaCon's open health registry, please contact me. There is ongoing research on Addison's disease and BeaCon's board of directors is looking into the possibility of research on SLO.

E. Sell (beaconbb@bellsouth.net)

BeaCon's Web Site

Home Page

www.beaconforhealth.org

Log in for Open Health Registry

www.beaconforhealth.org/sqlweb

New Links

Canine Behavioral Genetics. Am J Human Genetics, 82/1:10-18, 2008 [http://www.ajhg.org/AJHG/fulltext/S0002-9727\(07\)00027-4](http://www.ajhg.org/AJHG/fulltext/S0002-9727(07)00027-4)

Hemangiosarcoma. www.beaconforhealth.org/HSEArticleforPWDandGSD.doc

Dispelling the Myths About Canine Cancer and Its Treatment and Cancer Stem Cells: A New Way To Look at an Old Disease.

www.beaconforhealth.org/07_CHF_PresentationSummaries.doc

Addison's Research Project at UC Davis

- **Request cheek swab kit for submitting your Beardie's DNA—**
<http://cgap.ucdavis.edu/addison's.htm>
- **Update your Beardie's health yearly—**<http://cgap.ucdavis.edu/healthupdateform.htm>