

Pruritic Clinical Trial

An 18-month old, 75-lb, male Golden Retriever named Yancy was presented with a history of year-round facial and pedal pruritis, which seemed to be worse in the summer and fall. Previous treatment with corticosteroids and antibiotics partially relieved the problem. This dog had spent some time in a kennel during the family's vacation and was on a premium lamb and rice dog food.

Physical examination revealed epidermal collarettes in the groin and antecubital area, where there was also evidence of follicular plugging and alopecia. In addition, Yancy had mild erythema around the muzzle. Otic examination, skin scrapes, and a fungal culture were all unremarkable.

The differential diagnosis was extensive so rather than trying to pinpoint a specific diagnosis during the first visit, we used a "pruritic clinical trial" (Table 1), a rapid approach to treatment and diagnosis of the pruritic pet that initiates treatment at several different levels simultaneously. The timing of symptom reduction, elimination, or return is the key to the trial, so client compliance and observation are of paramount importance. The owners were asked to keep a journal and grade the itch daily on a scale of 1 to 7, with a 1 being the worst Yancy had ever been; 2, very itchy; 3, itchy; 4, no change; 5, improved; 6, much less itchy; and 7, not itchy.

Twenty-one days later, Yancy presented for reexamination. The pyoderma had resolved. According to the clients, the epidermal collarettes and pustules had disappeared at least 10 days before. The pruritus had improved. Grading between 6 and 7, until the day when Yancy began to lick his feet, which the owners graded 5. The owners felt that despite the fact that Yancy was still pruritic, he was "comfortably itchy" and did not need be worked up further for what appeared to be an inhalant allergy. After the diet was challenged, pruritus did not noticeably change, so we eliminated food allergy from the differential.

This case apparently fell into the category of inhalant allergy responsive to shampoo therapy and fatty-acid supplementation. Shampoo therapy, using a hypoallergenic shampoo as often as possible, and fatty acid supplementation. Since food allergy had been eliminated, the use of a palatable, protein-containing fatty-acid supplement could be considered. At this point, hydroxyzine 50 mg t.i.d. and some prednisone were also prescribed, with

the advice that if there were further bouts of the pruritus, then Yancy might need the hydroxyzine. If hydroxyzine was ineffective, prednisone might be required. If Yancy needed prednisone more than three to four times, then we would consider allergy testing, with the goal of hyposensitization.

ANALYSIS

If itching had stopped during the time when the prednisone and ivermectin (Table 1, steps 4 and 6) were given and it had never returned, then scabies could have been presumably diagnosed. In Yancy's case, the ivermectin treatment worked and prednisone broke the itching cycle. The dog's itching returned after prednisone was stopped, leaving us with the most likely diagnosis of inhalant allergy.

Contact allergy, an uncommonly seen condition, could also have been possible: however, severe pruritus should have recurred despite shampoo therapy and fatty-acid supplements. Bacterial hypersensitivity is suspected if the itch returns with a pyoderma within 30 days of stopping antibiotics. If the itch and the pyoderma disappear after a second course of antibiotics, the diagnosis is confirmed.

Keratinization disorders, psychogenic pruritus, skin cancer, cutaneous infection with *Malassezia* spp., and other less common primary skin diseases may prevent the itch from resolving. Additionally, scabies that resists treatment—perhaps due to a failure to treat the environment or all animals the patient has contact with may cause persistent pruritus. A biopsy or cytology may be helpful in diagnosing these conditions. If the itch does not improve at all from the pruritic clinical trial and is not prednisone-responsive, then one should examine the patient closely for *Malassezia*. While methods such as roll smears have been described, a 10-day trial of ketoconazole 10mg/kg split b.i.d., with an acetic acid/boric acid shampoo daily, can be used to diagnose this condition. If the patient improves, continue to use both agents for 30 days, then use the shampoo only on a weekly basis for 30 days or more.

If the pyoderma does not respond to therapy, then look for acantholytic cells with examination room cytology, culture, blood tests, and biopsy. Autoimmune diseases, such as lupus erythematosus and pemphigus complex, can be pruritic and will not respond to this trial unless they go into a waning period.

Recurrent pyoderma is a subject all by

itself. However, the basic principle of looking for the underlying disease is important. I have found a large number of these cases to be endocrine, mainly Cushing's disease or hypothyroidism.

While this method of employing a pruritic clinical trial can be effective with practice, in some cases, one must also consider combinations of diagnoses that may require the trained, interpretive skills of a board-certified veterinary dermatologist.

ITCHY, HEAD to Toe, Year-Round
By Steven A. Melman, VMD Veterinary Forum, July 1997

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1. Shampoo Therapy: Shampoo daily with a hypoallergenic shampoo. Removal of the offending antigen from the coat is fundamental. If a pyoderma, use MalAcetic Shampoo or MalAcetic Conditioner or MalAcetic Wet Wipes/Dry Bath twice weekly. If pruritus is severe, then use an oatmeal shampoo instead of the hypoallergenic. After bathing (or on a dry animal), use a leave-on oatmeal conditioner.
2. Eicosaderm EPA 360mg/DHA 240mg/20#/day. This is a pure omega-3 fatty acid with anti-oxidants.
3. Follow a strict hypoallergenic diet for 30 days. Home-cooked, all vegetable, turkey, or lamb diet with rice-is preferable. A copy of a home cooked diet is available in "Food Allergy" a chapter by Kevin Byrne in *Skin Diseases of Dogs and Cats*, Melman, DermaPet and "Diagnosis and Treatment of Pruritic Ear Diseases", a chapter in *Small Animal Ear Diseases: An Illustrated Guide* by Lou Gotthelf, Saunders, 2000. The latter chapter is available at our website dermapet.com
5. Antibiotics are only used if a pyoderma is present. (cephalexin 10mg/##/BID/21d)
6. Treat phantom endoparasites with an anthelmintic that also targets whipworms
7. Treat ectoparasites (Scabies and fleas). Begin a flea-control program. Since frequent bathing is recommended, a compound that is supposedly not washed off or neutralized by shampooing, such as fipronil, selamectin, or imidicloprid, are preferable. The advent of selamectin (Revolution) affords the clinician a single treatment to eliminate fleas and scabies. Some may still wish to use Ivomec (ivermectin) 0.1 ml/10lb weekly for four weeks. The extralabel use of this drug requires informed consent of the client.
8. Treat *Malassezia*: MalAcetic Shampoo every other day, MalAcetic Wet Wipes and/or Conditioner every day. Use antibiotics for concurrent pyoderma. Please see dermapet.com (protocol) on a 3-phase plan toward treating *Malassezia* dermatitis.