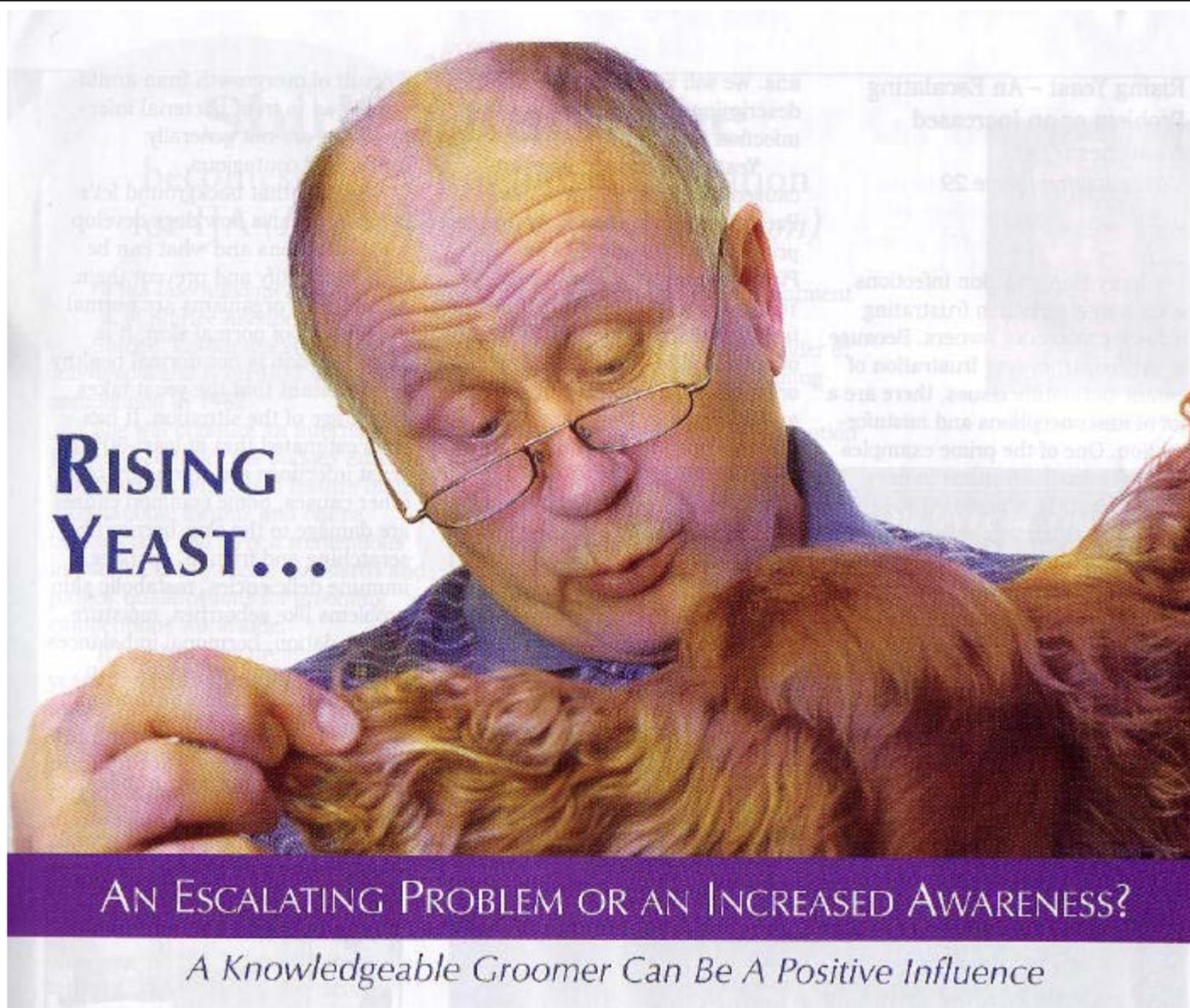


Rising Yeast...an escalating problem or an increased awareness?

by Dr. Boyd Harrell

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Today's pet groomer is often the first source of information for the pet owner. Owners respect the groomer's knowledge and therefore take what they are told as the truth and the only truth. If this is in fact the way many owners think, then it is prudent that groomers provide the most accurate information possible. This article is in support of increasing one small part of the knowledge base you have to draw from so as to best support our furry friends and their families. Following is a summary of canine yeast infections including cause, symptoms, diagnosis and treatment options.

Itchy skin and skin infections are a major and often frustrating issue for many dog owners. Because of the frequency and frustration of canine dermatitis issues, there are a lot of misconceptions and misinformation. One of the prime examples of this is yeast infections in dogs and this article is designed to provide some education about yeast infections, their cause, treatment and prevention. In the author's experience, yeast infections tend to be over diagnosed by the pet owner and under diagnosed by veterinarians. We will start with a short description of what a yeast infection is.

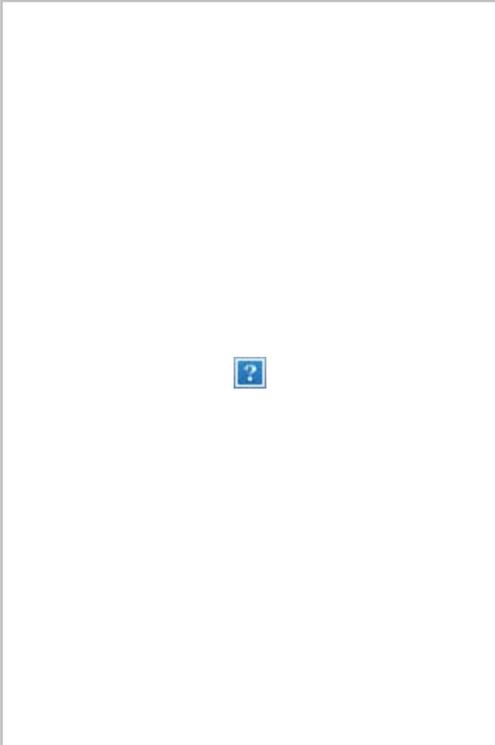
Yeast infections in dogs are caused by the organism *Malassezia Pachydermatitis*, previously known prior to the 0s and 80s as *Pityrosporum pachydermatitis*. Yeasts are a member of the fungus family and are common inhabitants of normal skin. They are single cell organisms that multiply by budding and separating. They flourish in but are not dependent on lipids (fats and oils).

In small numbers and on normal skin *Malasizzia* poses no problems. Yeast organisms are commonly found in the ears, vagina and

anal sacs of asymptomatic dogs. Unlike Candida, another yeast infection, Malassezia problems are not a result of overgrowth from antibiotics used to treat bacterial infections and are not generally considered contagious.

So with that background let's begin to discuss how dogs develop yeast infections and what can be done to identify and prevent them. Again, yeast organisms are normal inhabitants of normal skin. It is when the skin is not normal healthy and resistant that the yeast takes advantage of the situation. It has been estimated that at least 80% of yeast infections are secondary to other causes. Some common causes are damage to the skin barrier like scratching and friction, allergies, immune deficiencies, metabolic skin problems like seborrhea, moisture accumulation, hormonal imbalances (especially hypothyroidism), skin parasites like demodectic mange and some dogs actually become allergic to the yeast themselves.

There is no sex predilections, however certain breeds are predisposed and a partial list includes: Cocker and Springer Spaniels, many Terriers and especially the West Highland White, Maltese, Miniature Poodle, Shetland Sheepdog, Collie, German Shepherd, Lhasa Apso, Shih Tzu, Dachshund, Basset Hound and the Shar Pei. Prevention then is primarily aimed at identifying and controlling contributing causes.



Common signs of yeast infections may include ear infections, infections between the toes and toenails, offensive skin odor, increased scaling or dander, hair loss, greasy or oil skin, and inflammation. Common areas of the body to be affected are the underside of the trunk, the axilla or armpit area, the front side of the elbows, around the anal area, muzzle and around the eyes, The affected area may have well defined borders. With chronic infections the skin may begin to darken and become roughened and wrinkled and traumatic hair loss can result. Moist valleys created by lip folds, nasal folds and vaginal folds provide an ideal incubator for yeast.

The symptoms may be somewhat seasonal, being more likely in the spring, summer and fall *the same as many allergies!). Signs of seasonal allergies may become longer, more severe or non-seasonal. Allergy dogs that have been previously controlled with allergy drugs may become resistant or non-responsive to treatment. What's more, it is impossible to tell yeast infections from bacterial infections solely on appearance.

Since the signs of yeast infections can mimic other skin diseases, how can it be diagnosed?

First, there must be suggestive signs like the ones listed in the previous paragraph. Second, diagnostics are required for a definite diagnosis. Lack of response when treating other skin conditions may also be suggestive of a yeast problem. The yeast must be demonstrated in significant numbers on stained slides made from the skin. The common ways to collect yeast from skin for a microscopic exam is by dry microscope slide scrapings, dry slide impressions, tacky slide preparations and acetate tape

preparations. Samples are generally collected from several sites to increase the probability of a proper diagnosis.

Once a slide is made it can be stained and examined under the microscope for the typical budding organisms. Slide preparations are a quick and simple in-office test that the veterinarian can do during a normal visit. Cultures are expensive and rarely used to identify Malassezia while biopsies are sometimes helpful in challenging cases. It is also worthy to note that mixed infections, made up of both bacteria and yeasts, commonly occur and when the infection is mixed, both the yeast and bacteria need to be treated at the same time.

Once a yeast infection is confirmed a treatment plan can be formed. As mentioned earlier in this article, most yeast infections are secondary to other causes and both the yeast infection and the underlying cause will need to be addressed for a satisfactory result. Without control of underlying conditions, treatment failure is nearly guaranteed. For simplification, we will discuss here only the yeast treatment.

Yeasts infections generally respond best to a combination of both oral and topical treatment. Ketoconazole is the most commonly used oral medication and is a prescription only drug. It may be best to give with food to minimize stomach irritation and upset. Absorption is best in an acid environment so it should not be given with acid blockers like Pepcid and Zantac.

Other choices such as itraconazole and fluconazole are also available to the veterinarian and are tailored to the situation at hand and the individual patient's needs and tolerances. Griseofulvin, used for treatment of ringworm, is not affective against Malassezia.

Topical treatment may involve shampoos, rinses, lotions, sprays and wipes. Topical treatment is aimed at reducing the lipids and

killing or retarding growth of the yeast. Medicated shampoos may contain 3-4% chlorhexidine, benzyl peroxide, acetic/boric acid, 2% chlorhexidine combined with miconazole, lyme-sulfur and lastly ketoconazole. Selsan Blue is a non-prescription human shampoo containing selenium disulfide that has helped many infected dogs though it tends to be harsh. Ketoconazole containing human shampoos may also be used. Rinses and lotions typically contain miconazole and acetic/boric acid. Shampooing as often as twice weekly with medicated shampoo followed by a medicated rinse may be required in the initial phase of treatment.

Treating yeast infections can be frustrating for both the veterinarian and the pet owner. Treatment is often long term with repeated veterinary visits and recurrences common. Expense, energy and time commitments often lead to non-compliance or totally stopping treatment, leaving the dog in an uncomfortable situation. There are high maintenance patients and require dedication to have a favorable outcome.

So as you can see, identifying and managing canine yeast infections is not a straight forward task and is often a long term management disease. The groomer's role can include being a source of valuable information and recommending medical attention for affected dogs. There are also services that the groomer may choose to provide which can aid in the control of canine yeast infections. The following suggestions come from the author's experience and may not have universal agreement among veterinarians and do not necessarily have scientific articles to support them so you should take them as such.

Clipping the hair short may increase the effectiveness of shampooing and allow the skin to ventilate and cool, which can lead to better patient comfort and a smaller yeast population. Keeping the skin clean and minimizing the greasy build up can create a harsher environment for the yeast to survive in. Feeding high quality preservative-free raw diets seems to help some victims. Supplementing with antioxidants may minimize the inflammatory response and help support the immune system. Anything that supports clean healthy skin and immune system is a big plus. Remember yeasts are opportunists; they are only present when there is an insult or malfunction of the skin or immune system.

Author, Dr. Boyd Harrell, currently practices pet medicine in central Florida. He formerly owned two veterinary practices in Illinois nationally recognized for their exceptional management. He is an international speaker to pet lovers, pet care pros and veterinarians, a pet consultant with Oxyfresh Worldwide and both a trained personal life and health coach. He may be reached at 866-388-3578, at boydharrell@email.com.