

Table 3

CHANGES IN CLINICAL SIGNS IN THE 17 SUBJECTS

Pruritus		
Initial Exam	100%	(17/17)
7 days	12%	(2/17)
14 days	12%	(2/17)
Erythema		
Initial Exam	88%	(15/17)
7 days	6%	(1/17)
14 days	0%	(0/17)
Head Shaking		
Initial Exam	88%	(15/17)
7 days	0%	(0/17)
14 days	0%	(0/17)

changed the epithelial layer of the external ear canal in some way that inhibited the binding mechanism. The acetic acid/boric acid treatment protocol used in this study differs from conventional methods of treatment. Most drug treatments for otitis externa are composed of antifungal drugs in an oily vehicle that is placed into the ear canal and left there. Twice-daily treatments often fail to eliminate *Malassezia*. These medications do not effectively change the lipid environment within the epithelial layer of the external ear canal.

The most common therapies used in the treatment of *Malassezia* involve use of combination antifungal pharmaceutical products. While these medications frequently provide resolution of symptoms, treatment failures that do occur are presumably related to the initial diminution of inflammation, attributable to the corticosteroid used in the ear medications,¹¹ and when the steroid treatment stops, the pruritus will return.

This effect could be explained by allergic disease. A report of dogs with pruritic skin disease revealed that 55 percent of the dogs that had shown elevated Cutaneous *Malassezia* populations were atopic.¹² It has also been demonstrated that human atopic dermatitis (AD) patients who develop *Malassezia* have high serum levels of *Malassezia*-specific IgE antibody not found in noninfected AD patients or

controls.^{13,14} Interestingly, when the disease was treated and resolved, the *Malassezia* specific IgE levels fell.¹⁵

Although an exact mechanism has not been determined, this study demonstrated that a solution of two percent boric acid and two percent acetic acid used daily for seven days without any other treatment successfully eliminated *Malassezia* yeasts in the ears of dogs with otitis externa and resolved symptomatic ear disease in the patients treated.

It is our hope that this demonstration of how effective one ear-cleaning solution can be in the treatment of *Malassezia* will stimulate other investigators to conduct controlled studies focusing on ear hygiene as a treatment for *Malassezia* otitis externa in the dog.

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