VMC
VICTOR MEDICAL COMPANY

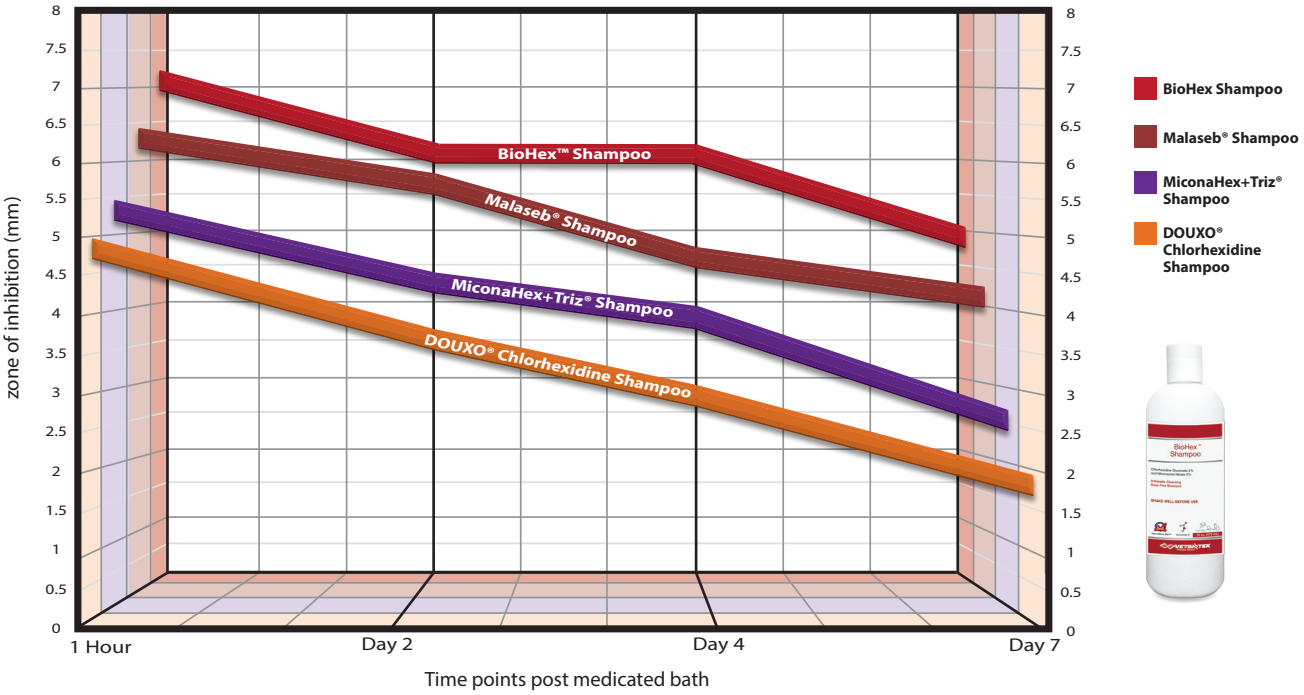
3rd Quarter Promotion

BIOHEX™

Antiseptic Line featuring MicroSilver BG™ and Ceramide III

SUPERIOR FORMULATION = SUPERIOR RESULTS

Residual *in vitro* activity of canine hair against *Staphylococcus pseudintermedius*[1]



At day 7, the zone of inhibition of BioHex Shampoo was 2 times larger than MiconaHex+Triz® Shampoo and 2.9 times larger than DOUXO® Chlorhexidine Shampoo!

[1]An independent study conducted by Iowa State University entitled, "Residual *in vitro* activity of canine hair against *Staphylococcus pseudintermedius* and *Malassezia pachydermatis* following a single antimicrobial bath." The study evaluated four antimicrobial shampoos, including BioHex™ from VetBiotek, based on bacterial growth inhibition. There was a statistical significant difference in the performance of the shampoos on the growth inhibition of *S. pseudintermedius.*

Effective July 1, 2019 thru September 30, 2019

Buy 10 Units of BioHex, BioCalm or BioSeb Mousse (kind for kind) Receive 2 Units FREE

Cosmetically Appealing, Lipid Barrier Restoring, Waterless Bath. Facilitates Compliance.

BioHex™ Mousse

3% Chlorhexidine Gluconate with Climbazole, MicroSilver and Ceramide III

- Leave-on Antiseptic Mousse
- Great for Local or Generalized Lesions

VBDHZ0200 (200 mL) - $16.22 SVP

BioCalm™ Mousse

1% Pramoxine with MicroSilver and Ceramide III

- Leave-on Anti-Itch Mousse
- Allergy

VBDBC0200 (200 mL) - $16.13 SVP

BioSeb™ Mousse

2% Salicylic Acid, 10% Ethyl Lactate with MicroSilver and Ceramide III

- Leave-on Anti-Seborrheic / Antiseptic Mousse
- Deodorizing

VBDBS0200 (200 mL) - $13.87 SVP

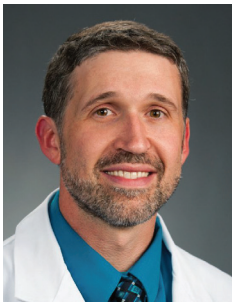
MicroSilver Video
"the difference maker"

VETBIOTEK Innovative Solutions

visit our newly renovated site | **www.vetbiotek.com**

LITPROMO3Q2019VMC

New Tools to Achieve Success in Canine Atopy



Darin Dell, DVM, DACVD
Wheat Ridge Animal Hospital
Wheat Ridge, CO

Atopy is an extremely common problem in Veterinary Medicine today. Atopy is the abbreviated terminology used to describe allergic dermatitis which is caused by environmental allergens. In the past several years our understanding of this disease and our ability to treat it have increased dramatically. For example, we now know that allergen sensitization occurs via percutaneous absorption. This fact helps explain why pets with atopy often lick or chew their paws and typically do not have respiratory symptoms.

Research has illuminated multiple mechanisms and genetic factors that contribute to the development of atopy.[1] This research has added support for the fact that atopy is primarily a genetically inherited disease. Clinical experience has continued to show us that atopy in dogs and cats worsens with age and does not self-resolve.

Several new treatment modalities for atopy are now available. Six core therapies exist: antihistamines, steroids, Atopica®, Apoquel®, Cytopoint®, and immunotherapy. Immunotherapy remains the only treatment option that can effectively prevent the entire allergic process. Other therapies focus on suppressing symptoms or blocking some aspect of the allergic response. Immunotherapy is also the only therapy which can prevent new sensitivities from developing and produce a clinical cure.[2]

Lessening allergen exposure remains important regardless of the core therapy utilized. Knowing that allergen exposure occurs across the skin provides us with a huge advantage in this fight. One of the key genetic factors responsible for increasing allergen exposure in atopic animals is reduced ceramide production.[3] Ceramides are a key component of the lipid layer of the stratum corneum. When ceramides are decreased, allergens can more easily cross the skin barrier and become presented to the immune system. Presentation of an allergen to the immune system starts a complex series of reactions resulting in allergic inflammation and pruritus.

Studies have shown that we can replenish the ceramides missing from the epidermal barrier in a variety of ways.[4] Shampoos, conditioners, sprays and wipes are common modalities. Replenishing ceramides is a continual process because the epidermal barrier is in a continual state of renewal. Ceramides must be applied frequently for best effect; typically, at least twice weekly. Lastly, the full effect of replacing epidermal ceramides may not be evident until 4-8 weeks after treatment begins.

> ***"Topical antimicrobial therapy has moved to the forefront of dermatology treatment for superficial pyoderma...a new ingredient which has demonstrated excellent antimicrobial properties is MicroSilver. This ingredient has numerous antibacterial, antifungal, and anti-biofilm effects."***

Considering the array of allergy treatment options we have available the biggest problem we face has shifted from providing comfort to treating infections. Allergic animals are prone to skin infection via multiple mechanisms including increased adherence between bacteria and keratinocytes and a blunted immune response to infection in the epidermis. Increased spread of antibiotic resistant genes amongst bacteria has also added to this challenge. Topical antimicrobial therapy has moved to the forefront of dermatology treatment for superficial pyoderma and *Malassezia* dermatitis. Topical therapy allows us to avoid antibiotic side effects for the patient and does not contribute to the development of resistant bacteria. Chlorhexidine remains a very effective topical antimicrobial. However, a new ingredient which has demonstrated excellent antimicrobial properties is MicroSilver. MicroSilver is exclusive to the VetBiotek product line. This ingredient has numerous antibacterial, antifungal, and anti-biofilm effects.

> ***"When possible for the client, I recommend that my atopic patients are bathed with an antimicrobial shampoo containing ceramides on a weekly or twice weekly schedule."***

When possible for the client, I recommend that my atopic patients are bathed with an antimicrobial shampoo containing ceramides on a weekly or twice weekly schedule. In addition to replenishing ceramides, medicated bathes can be beneficial for atopic patients by physically removing infectious organisms, allergens, and inflammatory mediators. Medicated wipes can be useful for all the same reasons. Leave-on conditioners, sprays, and mousse products are also available with the same ingredients. These products are quicker and more convenient which allows us to match our clients with the product that is most likely to facilitate compliance and increase success. ▪

References
1. Bizikova P, et al. "Review: Role of genetics and the environment in the pathogenesis of canine atopic dermatitis. Vet Dermatol. Vol 26; Issue 2; April 2015.
2. Dell D, et all. "Owner assessment of therapeutic interventions for canine atopic dermatitis: a long term retrospective analysis." Vet Dermatol; Vol 23; Issue 3; June 2012.
3. Reiter L, S Torres, P Wertz. "Characterization and quantification of ceramides in the nonlesional skin of canine patients with atopic dermatitis compared with controls." Vet Dermatol. Vol 20; Issue 4; August 2009.
4. Marsella R. "Fixing the skin barrier: past, present and future – man and dog compared." Vet Dermatol; Vol 24; Issue 1; February 2013.