SPOTLIGHT ON CANINE ADULT GENERALIZED DEMODICOSIS

By Dr. Karen Farver DVM, DACVD

Canine adult generalized demodicosis is a noncontagious parasitic follicular skin disease associated with a genetic or immunologic disorder. It occurs when a dog, older than 18 months of age, has involvement of four or more focal areas of the feet and greater than 2 cm in diameter. This disease allows mites that are normal skin inhabitants to proliferate in the hair follicles and sebaceous glands. It causes alopecia, erythema, comedones, furunculosis, and secondary infections.

“NORMAL SKIN INHABITANTS TO PROLIFERATE IN THE HAIR FOLLICLES AND SEBACEOUS GLANDS”

WHICH PATIENTS SHOULD YOU EVALUATE FOR DEMODEX?

If they have the following distribution:

- The face
- The feet
- The entire body surface

If they have known detectable underlying disease causing underlying immune suppression or are on immune modulating drugs. 44% percent of dogs have identifiable causes.

Common causes including:

- Glucocorticoids (even topicals eye drops may affect local periocular demodicosis)
- Ciclosporin
- Oclacitinib maleate
- Chemotherapy
- Systemic disease (e.g. hyperadrenocorticism, hypothyroidism, neoplasia, malnutrition, parasitism)

DIAGNOSTIC ANALYSIS

Work up to consider in adult onset demodicosis with no known trigger:

- Complete blood count
- Serum biochemical profile
- Urinalysis
- Heartworm and fecal tests
- Lymph node aspirates
- Thyroid and adrenal testing
- Abdominal ultrasound
- Chest radiographs

HOW TO SAMPLE?

- Scrape-Deep till you get capillary bleeding
- Trichogram from around the eye
- Sharpei’s — You may need to biopsy
- Tape acetate preparation, squeeze for 5 seconds first

Demodectic-Pododermatitis: on a Bulldog (Figure 1)
Demodex: whole body (Figure 2)
**DOSAGE**

**ADVERSE EFFECTS**

**EVIDENCE FOR USE/SAFETY INFORMATION**

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| Ivermectin (Ivomec 1%) | 0.3-0.6 mg/kg PO Q 24 hour | Lethargy; vomiting; neurologic signs; such as tremors, mydriasis, ataxia, coma, death | • Many studies showing good evidence for use  
• Do not use in breeding males and their crosses or dogs with confirmed ABCC1-10 Delta (MDR-1) gene mutation  
• Do not use concurrently with spinosad (Comfortis and Trifexis) due to resulting severe neurologic adverse effects  
• Use with caution with other p-glycoprotein inhibitors such as azoles. |
| Fluralaner (Bravecto, Merck) 1 tablet PO Q 4 weeks for best absorption give with food | vomiting, diarrhea, anorexia, flattrulence, lethargy reported in 1% | • A study evaluated the efficacy (doses on days 0, 30, and 60) for the treatment of 16 dogs with generalized demodicosis for 121 days. The study showed that dogs treated with fluralaner had lower mite counts after treatment (99.2% on day 28, 99.9% on days 50 and 84)  
• Dogs ≥ 6 months of age  
• Licensed safe for use in breeding, pregnant, and lactating dogs  
• Causes dose-dependent neurologic signs, including tremors, ataxia, and seizures at 3x dose and 5x dose in some cases |
| Sarolaner (Simparica, Zoetis) 1 tablet PO Q 4 weeks best to give with food | vomiting 0.9%, diarrhea <1%, lethargy <1% | • A study evaluated the efficacy (doses on days 0, 30, and 60) for the treatment of 16 dogs with generalized demodicosis for 121 days. The study showed that dogs treated with sarolaner had significant mite count reduction after the first dose (97.1% and 99.8% at days 14 and 29, respectively), with no live mites detected at 44 days and thereafter.  
• Dogs ≥ 6 months of age  
• Safety has not been evaluated in breeding, pregnant, or lactating dogs  
• Study showed safe for use in dogs with ABCB1-10 Delta (MDR-1) gene mutation, such as collies  
• Caused dose-dependent neurologic signs, including tremors, ataxia, and seizures at 3x dose and 5x dose in some cases |

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**UPCOMING CONTINUING EDUCATION**

**Veterinary Practice Management**

Open to veterinarians and practice managers / administrators

**Date:** Tuesday, September 26, 2017

**Time:** Registration and Lunch 1pm | Seminar Begins 2pm

**Where:** Pomme | 175 King of Prussia Road | Radnor

**Credits:** Approved 4 CVPM credits

**Speaker:** Terence M. O’Neill, CPA, CVA – Katz, Sapper & Miller

This engaging seminar from Terry O’Neill – a leader in veterinary practice management – focuses on issues key to the success of a busy hospital. Topics include:

- Veterinary Hospital Financial Benchmarks: National Trends That Lead to Profitability
- Key Performance Indicators (KPIs): Compiling Your Hospital’s KPIs into an Effective Management Tool
- Managing Labor and Direct Costs: Stop Chasing the Pennies and Save a Dollar
- Internal Controls: Protecting Your Hospital from Becoming a Victim Profit Enhancement: Leading Your Team to Improve the Bottom Line

**Money is Not a 4-letter Word**

Open to your veterinary team

**Date:** Thursday, November 2, 2017

**Time:** Registration and Dinner 6pm | Seminar Begins 7pm

**Where:** Columbia Station | 4 Bridge Street | Phoenixville

**Credits:** To be announced

**Speaker:** Karen Stasiak, MSN, DVM, Regional Strategic Veterinarian – Zoels

Financial concerns are one of the most common and uncomfortable conversations in a veterinary setting. Designed to help your team have productive exchanges with clients, the lecture will cover topics such as: how to talk about finances; useful communication techniques; psychology of decision making, DISC/EQ assessment; and teamwork and conflict resolution.

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**FOR MORE INFORMATION AND TO REGISTER VISIT METRO-VET.COM/CE**
KENDRA HEARON | VMD, DACVS-SA
Joining MVA in August, Dr. Kendra Hearon is a Penn Vet graduate, Diplomate of the American College of Veterinary Surgeons, and ACVS fellow of Surgical Oncology. After completing her fellowship at Colorado State University, Kendra helped start the Comprehensive Cancer Care at the University of Pennsylvania, and then went on to help create a similar cancer center at the Animal Specialty Center in New York.

RACHEL MORGAN | DVM
In September, Dr. Rachel Morgan will join MVA’s emergency team. She received her Doctorate of Veterinary Medicine degree from the University of Minnesota’s College of Veterinary Medicine. She completed a one year rotating internship at Burlington Emergency and Veterinary Specialists, a one year specialty internship in emergency and critical care at Massachusetts Veterinary Referral Hospital, and a three year residency program in emergency and critical care at the Oradell Animal Hospital. Her interests within emergency medicine include trauma, coagulopathies, endocrine emergencies, and toxicology.

JAMES BUCKMAN | PhD, VMD
We are thrilled to welcome Dr. Buckman back to MVA’s emergency service, starting in September! Dr. Buckman studied at University of Pennsylvania and has worked extensively in emergency and critical care medicine. He also completed a PhD in biochemistry at the University of California prior to going to veterinary school. He is focused on evidence-based medicine and is experienced in emergent surgical and medical issues as well as complex chronic diseases.

PET LOSS SUPPORT GROUP
Here, we all understand the depth of loss one experiences when a beloved four-legged family member has passed. For that reason, Metropolitan provides a Pet Loss Support Group to help grieving owners in need. Our pet group is designed to provide grieving pet parents with a safe, confidential environment to share their feelings with others who have experienced pet loss.

The group is operated by vets and veterinary nurses who have experience with pet loss. A board certified psychiatrist consults with us regarding the implementation of the group, however, our group leaders are not mental health care professionals. Clients experiencing difficulty coping are urged to seek help from a mental healthcare professional. We can provide you with the names of health care professionals if needed.

Our Pet Loss Support Group meets on a varying schedule. For dates please call the hospital at 610.666.1050 or visit metro-vet.com/petloss.