

A newsletter
for referring
veterinarians



METROPOLITAN VETERINARY ASSOCIATES

Providing emergency care & specialized veterinary services

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and Acupuncture Vet



WELCOME TO the fifth edition of our newsletter

Established in 1986, Metropolitan Veterinary Associates & Emergency Services is a veterinary group that provides referral veterinary services. We concentrate on specialty and emergency cases, allowing us to dedicate high-level care to the following disciplines: cardiology, dentistry, dermatology, emergency, internal medicine, neurology, ophthalmology, pet rehabilitation/acupuncture, radiology (including CT and MRI) and surgery.

In order to maintain a high level of patient care, MVA moved into a newly renovated 18,000 square foot facility with state-of-the-art diagnostic and therapeutic equipment in 2006. If you haven't been able to visit our practice, we hope you can join us at one of the upcoming hospital lectures mentioned on page 4.

Please enjoy this newsletter and let us know of any topics of interest you'd like to see explored in future editions.

We've made it easier to contact us.

Catch us **24 HOURS A DAY** at **610/666/1050!**

(our primary phone number)

DID YOU KNOW?



CANINE DEMODICOSIS: COMMON BUT TREATABLE

By: Dr. Karen Farver

Cardiology

Michael Miller, MS, VMD, ABVP
Risa Roland, DVM, ACVIM (Cardiology)

Dentistry

Paul Orsini, DVM, ACVS, AVDC

Dermatology

Karen B. Farver, DVM, ACVD

Emergency Services

James Buckman, VMD, PhD
Jason Chamberlin, VMD
Franciszek von Esse, VMD, ABVP
Owen Fink, DVM
Mary F. Heckscher, VMD
Jennifer McGough, VMD
Marisa Suvannavejh, VMD

Julie Banyacski, CVT, VTS (ECC)
Practice Manager

Internal Medicine

John V. DeBiasio, DVM, ACVIM
James F. Dougherty, MS, VMD
Damon B. Rodriguez, DVM, ACVIM

Neurology

Jerry W. Northington, DVM

Ophthalmology

Amanda Corr, VMD
Stephen L. Gross, VMD, AVCO

Radiology

Robert C. McLear, VMD, ACVR

Rehabilitation & Acupuncture

Michelle Rupp, VMD, CCRT

Surgery

Lori W. Cabell, DVM, ACVS
A. Jon Nannos, DVM
Jacqui Niles, BVetMed, SAS, ACVS
Catherine Popovitch, DVM, ACVS
Timothy M. Schwab, VMD, Resident

Pinky presented to dermatology and Mainline Animal Rescue as an intact female of 4 years of age. Her history was unknown. She had severe dermatitis, pruritus, generalized lymphadenopathy, lethargy and was underweight.

Top differential diagnoses for her dermatitis included: ectoparasitism (demodex, sarcoptes with secondary bacterial infection, or dermatophytosis), severe bacterial folliculitis, hypersensitivity (atopy, flea allergic dermatitis, food allergy dermatitis), and autoimmune skin disorders.

Initial diagnostics and results included: a negative pinna reflex, surface tape preparations which showed yeast, ear cytology which showed yeast otitis, pustule cytologic evaluation which showed excessive neutrophils, eosinophils and intracellular cocci. Her deep skin scraping was positive for all stages of the *Demodex canis*.

DIAGNOSIS

Pinky had generalized adult onset demodicosis with secondary yeast, bacterial dermatitis and yeast otitis.

Demodicosis description

Canine demodicosis is a common skin disease caused by one of three types of mites: *D. injai*, *D. canis*, and an unnamed species. Demodex is a normal non-contagion commensal inhabitant of the hair follicle. Overgrowth and disease occur when the natural equilibrium is compromised. There are three classifications of canine demodicosis: localized, juvenile generalized, and adult onset generalized.

Juvenile onset demodicosis occurs in dogs under 18 months of age. Young dogs have inherently immature immune systems and are thus susceptible to the development of demodicosis without underlying disease. Typically, as their immune system matures, this mite infestation will clear. Juvenile demodicosis most commonly manifests as localized demodicosis. Localized demodicosis is defined as involving less than 4 areas of the body, and does not involve generalized pododermatitis. Approximately 90% of cases resolve spontaneously without treatment in 6-8 weeks. If a therapeutic intervention is desired, a benzoyl peroxide gel can be gently massaged into the alopecic area once daily. Generalized demodicosis is a more severe disease and has a hereditary component. It can be adult onset or juvenile onset. Treatment is recommended even in the juvenile form to facilitate recovery.

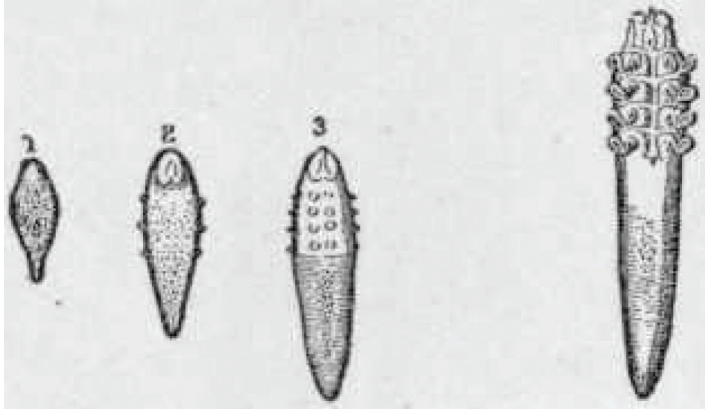
Clinical signs of generalized demodicosis include: alopecia, crusts and follicular papules/pustules which are initially on the face and feet, and then become generalized. Comedones, erythema, and seborrhea may also be present. Initially it is variably pruritic, but secondary infections will increase pruritus. Fever and lymphadenopathy are not uncommon. In Shar Peis excessive mucin may obscure the signs. Pododermatitis is always considered generalized demodicosis. CBC/blood chemistry abnormalities may include anemia, hyperglobulinemia, leukocytosis, and eosinophilia.

Diagnosis is made with a deep skin scraping which allows for quantification of eggs, nymphs, larvae, and adults.

MANY DEMODEX UNDER A MICROSCOPE



LIFE CYCLE OF DEMODEX



An older dog (adult onset) should not get demodicosis unless he or she has an underlying problem affecting the immune system. Investigation of the history and/or a more comprehensive medical work-up is recommended in these cases. Adult onset generalized demodicosis is the disease that Pinky had. The most common underlying causes are steroids (Cushings or exogenous), hypothyroidism, chronic infection or inflammation (e.g. heartworm, endoparasites, UTI, severe allergies, pyelonephritis), neoplasia, estrus, severe environmental stress or surgery. Pinky had multiple factors contributing to her development of the disease including coccidiosis, that she was an intact female, and that she came from a stressful environment.

Treatment for adult onset generalized demodicosis includes: Ivermectin 0.2-0.6 mg/kg (200-600ug/kg) orally once daily. Its use in treating demodicosis is not approved by the FDA. It should not be used in dogs with the MDR-1 mutant gene. There is a simple buccal swab test that may be used to determine if a dog carries this gene. Shelties, collies, Australian shepherds, collie type dogs, or Old English sheepdogs are the most common breeds with this mutant gene. In other breeds, adverse reactions from ivermectin can be seen occasionally; they include ataxia, bradycardia, mydriasis, respiratory arrest, salivation, stupor, and tremors. To avoid these side effects in a dog that has not previously received ivermectin; start on day one with 0.1 mg/kg and then increase the dose slowly by 50-100 mcg/kg/day up to the maintenance dose. If any side effects occur, the treatment should be decreased or stopped immediately. If there are no side effects, continue with maintenance therapy. Pinky was treated with .45mg/kg/day until resolution.

Milbemycin (Interceptor): This dose is 1-2 mg/kg PO daily.

Doramectin (Dectomax): is reported to be effective at 0.6mg/kg SQ once weekly. The cure rate is approximately 85%. Adverse effects are uncommon but include mydriasis, lethargy, blindness, and coma.

Amitraz (Mitaban) 0.03% to 0.05%: The hair coat should be clipped to obtain effective skin coverage. Sedation may be necessary. Eyes should be protected with ointment and the dog bathed thoroughly first to remove crusts. Then the Amitraz is applied without rinsing and should be applied every two weeks until resolved. The applicator should wear gloves and protective aprons and work in a well ventilated room. Toxic effects of Amitraz are sedation, edema, pain and pyrexia.

All treatment should be continued at maintenance dosing until the next scrape. Scrapes should be performed every 4-6 weeks with a count. If there has not been appropriate improvement then the treatment should be modified. After two consecutive scrapes are negative, treatment is discontinued.

Reducing physiological stress is an important factor in treatment. Ovariohysterectomy is recommended for intact females. The patient should be fed a quality dog food and be free of endoparasites and fleas. Skin infections are usually associated with these cases and antibiotics will likely be necessary. Antifungal therapy may also be needed. It is important that steroids and cyclosporine NOT be used in these cases as they will tip the immune balance in favor of the mite. Underlying systemic disorders should be treated appropriately. Antihistamines may help with some of the pruritus. Pinky was spayed, her secondary infections treated, and dewormed while on demodex therapy.

PROGNOSIS

The younger the dog, the better the chance of cure is. Most dogs less than 18 months of age recover completely. About 90% of patients can be cured. The average time to clinical and microscopic remission is approximately 4 months in reported studies, but it may take up to a year. The most common treatment problem is premature cessation of therapy. If there is not a relapse within the first 12 months the dog will usually not have a relapse. If there is consistent relapse, the dog may need to continue ivermectin (1-3x weekly) or be rescraped on a regular basis to prevent severe relapse.



Pinky was cured of her demodicois and adopted to a very loving family. To date she has had no relapses.

an invitation to attend



METROPOLITAN VETERINARY ASSOCIATES
&
EMERGENCY SERVICES

and

The Pennsylvania Veterinary Medical Association

Cordially invite you to attend a dinner presentation:

**Tips and Tricks for treating those frustrating chronic
dermatology cases:**

Focus on treating itch, seborrhea and MDR bacteria

Presented by

Karen Farver, DVM, ACVD

Thursday, June 2nd, 2011



**160 North Gulph Road
King of Prussia, PA**

**7:00 to 7:30pm-Registration and Appetizers
7:30 to 9:30pm-Dinner and Presentations**

All RSVPs to Stacey Connell @

Ph#: 610-666-1050 or email: sconnell@metro-vet.com

Limited spaces available, so don't delay!

Dr. Farver graduated from Colorado State University of Veterinary Medicine in 2001. She completed her internship in Small Animal Medicine and Surgery at Louisiana State University in 2002. After graduation, she worked in private clinical practice before choosing to pursue specialization in dermatology. She then completed her residency at the University of Pennsylvania and was awarded board certification status as a diplomate of the American College of Veterinary Dermatology. She is an active member of the world wide Dermatology Diplomate List Serve and the ACVD, is actively involved in clinical research studies, is published in the Journal of Veterinary Dermatology, has taught students and interns, and has been a speaker for veterinary continuing education courses and University seminars. Her clinical practice developed from the mentorship of eight board certified dermatologists from Europe and the United States. She has a strong interest in allergy management and stays current in the latest research in both animals and humans.

Certificates for attending - 2 hours of CE

Generously Sponsored by





PET REHABILITATION AND ACUPUNCTURE



Animals suffer from the same painful orthopedic conditions that affect humans. While some problems can be addressed with surgery, like cruciate ligament rupture or herniated discs, nonsurgical solutions can be very effective in alleviating symptoms of long-term conditions. Rehabilitation is also an essential part of post-surgical care to reclaim range of motion and ensure successful outcomes.

How do we determine what pets need rehabilitative services? The pet's owner is our best observer: owners may notice subtle lameness, a hitch in the normal gait. Other pets may demonstrate pain management behaviors during or after exercise, and in more serious cases avoiding using the affected limb. Remember, this is not an issue for only older dogs and cats - our practice sees patients of all ages, from puppies and kittens on up, at all stages of life.

Many of the patients in the care of MVA's pet rehabilitation and acupuncture service are pets whose owners want to provide their pets with the best quality of life possible while minimizing medication and surgical interventions. Other patients are referred to us by veterinary surgeons following surgery, or by general practitioners seeking less pharmaceutical-dependent methods for managing chronic pain.

Typically, a patient in care will start with a schedule of weekly treatments, with treatments decreasing in frequency as the patient improves. Particularly difficult conditions may require twice weekly treatment in order to make good progress. Every case is unique, and an individualized treatment strategy is created based on a variety of factors, including owner goals, patient age, patient condition prior to surgery or injury, patient body condition, and patient/client lifestyle.



MICHELLE RUPP VMD, CCRT

Dr. Rupp graduated from the University of Pennsylvania, School of Veterinary Medicine in 1997. She attended the International Veterinary Acupuncture Society (IVAS) training program for acupuncture and began using acupuncture in animals in 2003. Her initial application of acupuncture was for managing pain and distress in draft horses used for antibody production. Based on the promising positive results achieved for the horses, Dr. Rupp decided to start using acupuncture to manage chronic pain in the dogs and cats she saw in her house call practice.

When her daughter was born in 2005 and diagnosed with developmental delays, Dr. Rupp learned more about physical therapy and began to explore how she could apply the same principles in her veterinary practice. In 2009, Dr. Rupp attended the Canine Rehabilitation Institute to learn how to perform rehabilitation techniques on small animals. Since then she has been focusing her attention on developing a rehabilitation program that allows a bond to form among the therapist, pet and owner. The synergy among the group creates the most effective healing environment. In 2011, Dr. Rupp completed her certification as a CCRT, or Certified Canine Rehabilitation Therapist.

FOR FURTHER INFORMATION PLEASE CONTACT DR. RUPP AT [BADDODGR@VERIZON.NET](mailto:baddogdr@verizon.net) OR 610-858-0623



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VISIT US AT WWW.METRO-VET.COM TODAY

**METROPOLITAN
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DO YOU WANT TO GO GREEN?

Have this newsletter
electronically sent to you by
contacting Stacey Connell at
610/666/1050 or email to
sconnell@metro-vet.com



METROPOLITAN VETERINARY ASSOCIATES

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PET LOSS SUPPORT GROUP

Many of our employees have experienced and 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 meetings are held once a month onsite at Metropolitan and are free of charge for your clients (all family members are invited to attend). The group is led by Dr. Cari Thomson and co-led by psychiatrist Dr. Carol Tavani.

Please contact us at 610/666/1050 if you would like to have Pet Loss Support Group brochures mailed to your office. Clients are able to visit our website to find meeting dates and times, general information and recommendations on obtaining help outside of the group setting.

Pet Loss Support Group meetings held monthly for your clients (and are free of charge). Please contact us at 610-666-1050 for more information or for brochures

S U N I D A Y F O R O U R M O N T H L Y H O S P I T A L L E C T U R E S

PRESENTER/TOPIC

To get a list of topics and speakers please visit our website in the "for referring veterinarians" section

UPCOMING DATES/TIMES

5/19/11 **Cardiology**
Dr. Roland

6/16/11 **Dermatology**
Dr. Farver

ALL LECTURES WILL BE HELD AT METROPOLITAN

Dinner provided :: Space is limited

Stacey Connell
at 610/666/1050
or sconnell@metro-vet.com

RSVP