

A newsletter  
for referring  
veterinarians



JOIN US IN 2011  
AS WE CELEBRATE

**25**  
YEARS

# METROPOLITAN VETERINARY ASSOCIATES

Providing emergency care & specialized veterinary services

## INSIDE:

**p2-3**

Trilostane for the  
Treatment of Canine  
Hyperadrenocorticism –  
The Answer to Our Problems?

**p4**

Pet Loss Support Group  
& Monthly Lecture Series

## INSERT:

**front**

Meet our internal  
medicine team

**back**

Join us for CE



## WELCOME TO the fourth 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: behavior, cardiology, dentistry, dermatology, emergency, internal medicine, neurology, ophthalmology, 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?



# TRILOSTANE FOR THE TREATMENT OF CANINE HYPERADRENOCORTICISM – THE ANSWER TO OUR PROBLEMS?

By: Damon B. Rodriguez, DVM, DACVIM

## Behavior

Laurie Bergman, VMD, ACVB

## Cardiology

Micheal 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

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

## Neurology

Jerry W. Northington, DVM

## Ophthalmology

Stephen L. Gross, VMD, AVCO

## Radiology

Robert C. McLear, VMD, ACVR

## Surgery

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

**Trilostane is a synthetic steroid that competitively inhibits 3 $\beta$ -hydroxysteroid dehydrogenase. As a result of this enzyme inhibition cortisol production is decreased. Trilostane has been approved for the treatment of canine hyperadrenocorticism for a number of years in Europe but only recently in the United States. Several published trials have demonstrated trilostane to be effective and generally well tolerated for the treatment of pituitary-dependent hyperadrenocorticism.**

In the US trilostane has received a favorable public response and many clinicians have begun using this drug in lieu of the historical standard therapy of mitotane. Furthermore, with the advent of the internet a large number of pet owners research treatment options for their pets once a diagnosis of hyperadrenocorticism is made. Invariably, pet owners quickly conclude that trilostane is the preferred option because they feel it is much safer than mitotane. Conversely, clients conclude that mitotane is extremely unsafe and should not be used to treat their pets. Clients also often surmise that trilostane is the more efficacious option.

Mitotane is a cytotoxic drug that principally causes necrosis of the zona fasciculata and zona reticularis of the adrenal gland. So how do trilostane and mitotane compare? Let's try to get the facts straight. Is it fair to conclude that trilostane is safer when compared to mitotane for the treatment of canine hyperadrenocorticism? The short answer is yes. Mitotane does have a much narrower therapeutic index and a higher incidence of side effects. However, is trilostane more effective than mitotane? The answer is no. Actually, mitotane is slightly more efficacious than trilostane. Approximately 25% of dogs will fail to have adequate resolution of Cushing's syndrome signs when treated with trilostane. It is uncommon for dogs with pituitary-dependent hyperadrenocorticism to not respond to mitotane. Mitotane is potent and its effect of destroying the zona fasciculata and reticularis is consistent. Is there a survival benefit between the drugs? The answer is no. A recent survival comparison was published for dogs with pituitary dependent hyperadrenocorticism treated with either trilostane or mitotane. There was no significant difference between trilostane-treated dogs, surviving a median of 662 days, and mitotane-treated dogs, surviving a median of 708 days.

The author has effectively treated dogs with hyperadrenocorticism for years using mitotane, but this has largely changed due to the availability of trilostane. The decision to switch to trilostane has in large part been the result of having an effective FDA approved drug to treat this disorder and also because most clients walk in the door expecting trilostane from the start. There have been occasional instances where the use of mitotane has been required due to lack of effective control using trilostane but the vast majority can be effectively managed.

A personal observation is that trilostane often requires a bit more dose adjustment or changes in frequency of administration in order to achieve adequate regulation when compared to mitotane. This frequently adds up to more expense in required lab monitoring. This leads to the important point that as with mitotane, patients treated with trilostane must be closely monitored with ACTH stimulation tests and biochemistry profiles at regular intervals. It must be stressed to clients that although trilostane may be safer than mitotane it still can result in the development of hypoadrenocorticism and even death. The remainder of this writing will discuss 3 short case studies managed by the author at Metropolitan Veterinary Associates.

## CASE 1

11 year old, male neutered, Basset Hound. The patient was diagnosed with pituitary dependent hyperadrenocorticism by his family veterinarian. Trilostane commenced at an appropriate dosage and with appropriate monitoring at regular intervals. The dosage was gradually titrated upward to a final dosage of 150 mg daily. He presented to his family veterinarian in a clinically well state for a planned ACTH stimulation test. The pre and post levels were 0.7 and 1.0 mcg/dl, respectively. A biochemical profile revealed normal electrolytes. As luck would have it, the pet presented the following day with signs of vomiting, diarrhea, and collapse. A diagnosis of hypoadrenocorticism was made. He was treated appropriately with supportive care and glucocorticoid replacement and referred for further management. A follow-up ACTH stimulation test 2 weeks later revealed pre and post cortisol levels of less than 0.1 mcg/dl and hyperkalemia developed necessitating mineralocorticoid replacement. After 3 months of close monitoring and treatment an ACTH stimulation test eventually demonstrated recovery of adrenal function. The patient now remains clinically normal without the need of replacement hormone therapy or trilostane.

## CASE 2

8 year old, male neutered, Golden Retriever mix. The patient was diagnosed with pituitary-dependent hyperadrenocorticism by his family veterinarian and referred for treatment. Trilostane therapy commenced and was slowly titrated upwards over a period of 10 months to a final dosage of 240 mg daily. There was complete resolution of clinical signs and an ACTH stimulation test indicated good control. A 3-month follow-up was recommended. Normally extremely compliant, the client returned 5 months later due to health issues. An ACTH stimulation test at that time revealed pre and post cortisol levels of less than 0.1 mcg/dl with normal electrolytes. Fortunately, this patient never developed clinical signs and adrenal function recovered with temporary cessation of therapy.

## CASE 3

14 year old, male intact, Chihuahua. The patient was diagnosed with pituitary-dependent hyperadrenocorticism and treatment with trilostane commenced. After 2 months of therapy the patient was well regulated with an excellent clinical response at 30 mg daily. An ACTH stimulation test was advised in 4 weeks. The client elected to not return stating financial constraints. The patient presented 4 months later with a poor appetite, vomiting, weakness, and lethargy. An ACTH stimulation test revealed pre and post cortisol levels of less than 0.1 mg/dl with normal electrolytes. After cessation of trilostane and hormone replacement therapy the patient eventually improved with recovery of adrenal function.

Cases 1 and 2 demonstrate that apparently well managed patients can silently become overdosed with trilostane and eventually develop signs of hypoadrenocorticism. Cases 2 and 3 demonstrate that lack of compliance and trilostane do not mix well.

**In conclusion, is trilostane the answer to our problems when treating hyperadrenocorticism? Well it may not be the answer in every case but it has certainly provided a good alternative treatment option. The case studies clearly demonstrate that trilostane is not a panacea. Just as with mitotane, close monitoring with lab work and observation of clinical signs is paramount. If lack of compliance is anticipated then neither trilostane nor mitotane may be good options.**

**KNOW YOUR OPTIONS**

# 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](mailto:sconnell@metro-vet.com)



## METROPOLITAN VETERINARY ASSOCIATES

2626 Van Buren Avenue • Norristown, PA 19403

tel 610/666/1050 fax 610/666/1199

website [www.metro-vet.com](http://www.metro-vet.com)



## 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

## SUMMER JOIN US FOR OUR MONTHLY HOSPITAL LECTURES

### PRESENTER/TOPIC

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

### UPCOMING DATES/TIMES

9/16/10 6pm 10/14/10 6pm

11/11/10 6pm 12/9/10 6pm

1/13/11 6pm 2/10/11 6pm

## ALL LECTURES WILL BE HELD AT METROPOLITAN

Dinner provided :: Space is limited

Stacey Connell  
at 610/666/1050  
or [sconnell@metro-vet.com](mailto:sconnell@metro-vet.com)

# RSVP



# INTERNAL MEDICINE



## JOHN DEBIASIO DVM, ACVIM

Dr. John DeBiasio is a native of Bergen County, New Jersey. Following high school he attended the University of Pennsylvania majoring in molecular and cell biology. He graduated summa cum laude with distinction in biology and earning a Bachelor of Arts degree in 1999. He continued his education at Cornell University, School of Veterinary Medicine, and was awarded his Doctor of Veterinary Medicine degree in 2003. After graduating he was accepted to a rigorous one-year rotating internship in small animal medicine and surgery at Oradell Animal Hospital in Paramus, New Jersey. Following his internship, he accepted a faculty position at Texas A&M University, College of Veterinary Medicine, teaching fourth year veterinary students on the Community Practice Service. He was then accepted into the three-year, Small Animal Internal Medicine Residency program at Texas A&M, which he completed in 2008 and became board certified by the American College of Veterinary Internal Medicine.

Dr. DeBiasio's particular interests within the discipline of internal medicine include gastroenterology, hepatology, hematology, respiratory disease, endocrinology and infectious disease.

Dr. DeBiasio performs numerous specialized procedures which include, but are not limited to, laparoscopic surgery, gastroduodenoscopy, colonoscopy, rhinoscopy, bronchoscopy, urethrocystoscopy, contrast radiographic studies, PEG tube placement, ultrasound guided biopsies, and bone marrow aspirates and biopsies.



## JAMES F. DOUGHERTY MS, VMD

Dr. James Dougherty was born in Philadelphia and spent most of his early life in Deptford, New Jersey. Following high school he attended Rutgers College in New Brunswick earning a B.A. in Biological Science in 1974. He then entered The Graduate School at Rutgers University and completed his M.S. in Animal Science in 1975. In 1975 he began work on a Ph.D. program in Toxicology when he was accepted to the University of Pennsylvania School of Veterinary Medicine. He graduated in 1980. During the next year he worked in general practice in East Brunswick, New Jersey. Following the year in general practice he was accepted into the Small Animal Medicine and Surgery internship at the University of Pennsylvania. He was then accepted into the Small Animal Residency program at Penn, which he completed two years later in 1984. After the residency, he created an internal medicine referral practice in a surgical practice in Malvern, Pennsylvania.

In 1986 he co-founded Metropolitan Veterinary Associates, creating the first multi-specialty referral hospital in the Philadelphia suburbs. Over the years, the practice has grown from three veterinarians to over twenty. It has progressed from a Monday to Friday daytime specialty practice to 24-hour, 7 days a week specialty/emergency/critical care practice.



## DAMON B. RODRIGUEZ DVM, ACVIM

Dr. Rodriguez received his bachelors degree in mathematics from Cornell University in 1993. He headed to warmer weather and attained his veterinary degree from the University of Florida graduating with highest honors in 1997. He headed back north to Boston where he completed a one-year internship in medicine and surgery at Angell Memorial Animal Hospital. After two years of private general practice he completed a three-year residency in small animal internal medicine at Mississippi State University and became board certified in 2003.

Dr. Rodriguez's interests within the discipline of internal medicine are broad and include endocrinology, gastroenterology, hematology, oncology, cardiology, and infectious disease. He has published articles in several professional journals and has given talks at both the local and national levels. Dr. Rodriguez performs numerous specialized procedures which include, but are not limited to, gastroduodenoscopy, colonoscopy, rhinoscopy, bronchoscopy, urethrocystoscopy, abdominal ultrasound, echocardiography, contrast radiographic studies, PEG tube placement, ultrasound guided biopsies, and bone marrow aspirates and biopsies.



**CALL US**  
**24 HOURS A DAY :: 610/666/1050**  
**VISIT US AT WWW.METRO-VET.COM TODAY**

**METROPOLITAN**  
**VETERINARY**  
**ASSOCIATES**

an invitation to attend



METROPOLITAN VETERINARY ASSOCIATES  
&  
EMERGENCY SERVICES

*and*

**The Pennsylvania Veterinary Medical Association**

Cordially invite you to attend a dinner presentation:

**“Feline Diabetes - Cats are not small dogs.....”**

*Presented by MVA’s*

John DeBiasio, DVM, DACVIM

**Thursday, October 28th, 2010**



**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 Sarah Spurgeon @**

**Ph#: 610-666-1050 or email: [sspurgeon@metro-vet.com](mailto:sspurgeon@metro-vet.com)**

***Limited spaces available, so don't delay!***

***Certificates for attending 2 hours of CE provided by the PVMA***

*Generously Sponsored by*

