

Partners in Care

VETERINARY REFERRAL NEWS FROM ANGELL ANIMAL MEDICAL CENTER



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Angell Dentistry Service Expands

The Dentistry Specialty Service at Angell Animal Medical Center has been proud to provide quality oral health care to pets and education to clients and veterinarians since 1998.

Dr. William Rosenblad leads a staff of skilled, dentistry-dedicated technicians with experience treating high-anesthesia-risk patients. Angell is now excited to announce a new addition to this team, veterinary dentist Curtis Stiles, DVM.

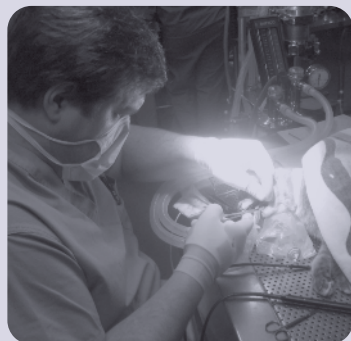
Dr. Stiles came to Angell from Med Vet: Medical Center for Pets in Worthington, Ohio where he practiced veterinary dentistry and oral surgery. A graduate of Ontario Veterinary College, he also completed a Residency in Veterinary Dentistry and Oral Surgery at The Veterinary Hospital of the University of Pennsylvania.

Dr. Stiles is a welcome addition to Angell and will help meet the increasing demand for dentistry services as clients are discovering more and more how important oral health is for their pets. Patients should receive a dental cleaning when gingivitis (red area along the gum lines) appears or bleeding during brushing is noted. Many pets get their teeth cleaned once a year. An annual cleaning is not necessarily appropriate for all pets. Diet, chewing behavior and preventative care (daily tooth brushing) are among the important factors influencing dental disease and how fast it can progress.

Larger breed dogs, who often eat only dry food and do a fair amount of recreational chewing, are not as prone to periodontal disease as smaller dogs and most cats. Small dogs have more crowding of their teeth, are less likely to eat only dry food and do less recreational chewing, all of which lead to increased risk of periodontal disease. Cats that eat canned food are more likely to get periodontal disease. Cats may also have their teeth affected by resorptive lesions (sometimes incorrectly called "feline cavities"). These lesions are progressive, destructive lesions of the teeth that often cause damage along the gum line. Any damage of either the tooth or gums along the gum line will increase the likelihood of periodontal disease.

Dental procedures begin by placing the pet under anesthesia. Once an animal is anesthetized, all of the teeth and gums are examined. If any periodontal pockets (loss of bone around the tooth, below the gum line) are found, dental radiographs may be done to assess the extent of damage. At this point, diseased teeth are appropriately treated. All teeth are then scaled (cleaned), including the area below the gum line, and finally the teeth are polished.

The length of a dental procedure can vary greatly. A straightforward cleaning may take 20-40 minutes. Any dental disease that requires ►P2



Dr. William Rosenblad performs oral surgery on a patient.

Provide Your Clients With Expert Nutritional Counseling

Do you opt out of making dietary recommendations because of the plethora of pet diet information and conflicting opinions?

The sheer number of dietary products available is overwhelming. The volume of science and reasoning behind diet formulations is enough to leave even the most well-read veterinarians confused.

Do you have patients with more than one medical condition (including obesity), but do not know which therapeutic product to recommend?

Most practitioners are very good at selecting a diet appropriate for a single medical condition. However, in growing, senior or geriatric patients, the diet must complement more than one physiologic state.

Did you recommend a diet change for a patient but the client declined or is noncompliant?

Data have shown that 35-45% of pets have a medical condition for which there is an appropriate therapeutic diet, but only 7% of owners make that commitment, primarily due to a lack of understanding of how the diet can help the pet.

Are you not sure how to answer client questions concerning supplements?

The supplement market is NOT regulated by the FDA and is a

INSIDE

Behavior Case Study **P2**

Chemotherapy **P3**

Pain Management Seminar **P3**

Angell Referral Guide **P4**



Angell is equipped to guide you if you feel you have a patient that needs nutritional counseling.

"buyer beware" market. Millions of dollars are wasted annually on pet supplements that are inappropriate, however, there are effective supplements available that are backed by scientific studies.

Dr. Rebecca Remillard, a board-certified veterinary nutritionist at Angell, is available for Nutritional Counseling by appointment. For more information or to refer a client, please call Eleanor Cousino, Referral Coordinator at 617 522-5011 or visit www.mspca.org/nutrition.

Behavior Case Study

Stefanie Schwartz, DVM, MSc, DACVB



Stefanie Schwartz, DVM, MSc, DACVB, treats behavior issues in both cats and dogs at Angell.

Patient Bullet is a one-year-old neutered male Rhodesian Ridgeback.

Presenting Complaint Approximately one month prior to coming to Angell, Bullet's owner had discovered him gnawing on the computer surge protector when he bit down and was electrocuted. His concerned owner ran toward him and the stunned dog cowered and shook. He

seemed otherwise uninjured according to the owner and she decided not to have him examined.

In the immediate aftermath of this traumatic event, Bullet became extremely reactive to his owner's approach. He ran away and hid in a closet or under the bed, sometimes dribbling urine as he fled from her. After several weeks, she brought him to Angell.

Bullet appeared to be anxious and hypervigilant in the waiting area and huddled close to his owner's feet. The owner was able to demonstrate good leash control and appropriate application of obedience commands when asked to walk her dog through the waiting area.

An in-depth review of the history revealed that Bullet ate two daily meals and enjoyed long walks and play dates with other compatible canine playmates everyday. His owner had owned two large dogs prior to Bullet and was an experienced and reliable handler.

Diagnosis Because of her rapid approach toward the dog at the moment he received a strong electric jolt from the cable he had bitten, she had become a conditioned stimulus of his phobic response.

In true Pavlovian conditioning, the unconditioned stimulus (pain and panic from electrocution) triggered the unconditioned response (physiological reactions such as elevated heart rate, respiratory rate, adrenaline, cortisol and psychological response of avoidance reaction). The owner's advance (conditioned stimulus) was coincident to the dog's trauma and this association created a conditioned and very negative response to his owner. Bullet had unfortunately developed a phobia of his owner.

Treatment Bullet survived a traumatic event but emerged with a post-traumatic behavior problem. Anxiety should be considered a form of pain, and with that in mind, deserves attention and intervention. Relief of anxiety is no less important than pain management.

The goals of treatment were two-fold. First, Bullet's anxiety level needed to be controlled and chemical intervention would provide the fastest, most reliable relief. Second, the relationship between owner and pet companion needed to be reset back to normal; psychoactive medication, combined with basic behavior modification, were advised.

A CBC, serum biochemistry and urinalysis were clinically insignificant. Physical examination was unremarkable.

The effects of electrocution are not always obvious and Bullet's owner was advised to bring him in as an emergency should his destructive behavior continue to be directed onto cables and wires. It was recommended that

Bullet be offered rawhide strips, sticks and batons (avoiding knotted or bulky shapes) coated with peanut butter several times over the course of the day and evening. Chewing is an anxiety-releasing mechanism in dogs. The owner was to sit on the floor so that she would appear less intimidating and invite her dog to approach her for a food reward.

The benzodiazepine alprazolam (0.1 mg/kg q12h) was chosen to control Bullet's anxiety. This group of drugs has an orexigenic effect that can be used as an advantage in desensitizing and counterconditioning programs. For Bullet, the appetite-boosting effect combined with the anxiolytic effect helped him to overcome his phobia. His motivation to acquire the food reward exceeded the fear of approaching his owner.

After one week on psychoactive medication, Bullet's owner was able to sit on a chair or sofa when she invited him to enjoy his rawhide. By the end of the second week, he was able to approach her when she stood. By the end of the fourth week, Bullet remained in a down and stay position and welcomed her approach as she gave him a treat.

Alprazolam therapy was continued for an additional month to avoid any chance of regression and gradually withdrawn in the last week of treatment. Bullet showed no fear of his owner during this time and alprazolam was discontinued. Bullet's owner also ensured that all electric wiring in her home was concealed behind furniture, under rugs or in commercially-available cable covers.

Follow Up Bullet is continuing to enjoy and respond well to his rawhide chews. Both Bullet and his owner are once again enjoying each other's company.

For More Information A behavior problem, whether acute or longstanding in nature, can have a serious impact on the animal and owner's quality of life and their future together. It is always important to ask about the existence of any behavior problems during routine examinations. In addition, a client's report of pet misbehavior at any time should prompt a referral to a board-certified veterinary behaviorist for a meaningful diagnosis and appropriate treatment plan.

For more information, please visit www.mspca.org/behavior. To refer a client to the Behavior Service at Angell, please call Eleanor Cousino at 617 522-5011.



Rhodesian Ridgebacks are just one of many breeds of clients Dr. Schwartz works with on behavioral problems.



Angell Dentistry Service

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more treatment than just a cleaning or any necessary tooth extractions will, of course, require more time.

When you refer your clients to the Angell Dentistry Service, we have the ability to coordinate and consult with the other specialty services which helps to provide optimal patient care. Some of the specialty services with whom the Dentistry team works include: Avian and

Exotic Medicine, Cardiology, Emergency and Critical Care, Internal Medicine, Oncology and Surgery.

To learn more about the Dentistry Service at Angell, please visit www.mspca.org/dentistry. To refer a patient, please call Eleanor Cousino at 617 522-5011.

Monitoring the Effects of Chemotherapy in Your Cancer Patient

Michelle Turek, DVM, DACVIM (Oncology), DACVR (Radiation Oncology) and Esther Chon, DVM



Michelle Turek,
DVM, DACVIM, DACVR,
of the Angell
Oncology Service.

How does chemotherapy work?

Chemotherapy is the systemic use of cytotoxic chemical agents in the treatment of cancer. It can be used alone in cancers that respond well to chemotherapy or as adjuvant therapy with surgery and radiation to reduce the risk of metastasis. Chemotherapy interferes with DNA, and death of the cell generally occurs when it attempts division or repair of its DNA. It follows, therefore, that chemotherapy is most active against actively dividing cells. Smaller

tumors have a larger proportion of proliferating cells, so the smaller the tumor, the better the response to chemotherapy.

What are the common side effects of chemotherapy? Toxicity from chemotherapy most commonly occurs in normal tissues that are renewing and rapidly dividing, i.e. gastrointestinal tract, bone marrow and continuously growing hair.

Gastrointestinal toxicity most commonly occurs secondary to direct damage to intestinal epithelial cells. Typical signs include inappetence, nausea, vomiting and/or diarrhea beginning three to five days after treatment. Usually, these side effects are minimal and self-limiting. Occasionally, supportive care is required.

Myelosuppression occurs secondary to damage to the rapidly dividing bone marrow stem cells. Cells with the shortest circulating life span are most susceptible. Thus, myelosuppression most often manifests as neutropenia since the half-life of a circulating neutrophil is less than one day. Platelets circulate for approximately 10 days and are the second most susceptible line. Usually, patients with mild to moderate myelosuppression are clinically normal, if there are no secondary infections. An ill patient on chemotherapy should be seen on an emergency basis.

If any of the aforementioned side effects are severe, dose reductions are considered. These reductions are not taken lightly, as dose intensity is extremely important for anti-tumor response. Therefore, dose reductions are considered only after symptomatic treatments to abrogate adverse effects of chemotherapy have been attempted.

Other drug-specific effects such as cardiotoxicity from doxorubicin, sterile cystitis from cyclophosphamide and hepatitis from CCNU may necessitate discontinuation of the drug.

Which bloodwork parameters should I monitor? What should I do about abnormally low blood counts?

A CBC should be performed at intervals at which neutropenia is expected to be most pronounced. This usually falls at weekly intervals between treatments that are given more than one week apart (doxorubicin is given every two to three weeks; CCNU is given every three weeks in the dog). A CBC is also performed just prior to each chemotherapy administration. If the neutrophil count is less than 1500/uL, treatment should be delayed until it is above

this limit. If the neutrophil count falls below 1000/uL and the patient is afebrile, prophylactic broad-spectrum oral antibiotics should be started. If febrile, the patient should be treated with IV fluids and antibiotics, as this is consistent with sepsis and an oncologic emergency.

What history and physical exam findings should I be concerned about?

Chemotherapy side effects that are prolonged, severe or are diminishing the patient's quality of life should be addressed as soon as possible.

Consequences of severe GI effects are dehydration, nutritional deficiency and treatment delay. Judicious use of anti-emetics (serotonin 5-HT₃ receptor antagonists, Cerenia, metoclopramide) and anti-diarrheals (metronidazole, tylosin) is indicated. Hospitalization for rehydration and other supportive care may be indicated.

If a myelosuppressed animal is ill or pyretic, immediate attention with emergency examination, hospitalization and parenteral administration of broad-spectrum antibiotics, IV fluid support and other supportive care (parenteral anti-emetics and anti-diarrheals), are indicated. Thoracic radiographs should be considered in a febrile neutropenic patient to rule out aspiration pneumonia especially if there is concurrent vomiting.

What are the goals of chemotherapy? The goals of using chemotherapy in our veterinary patients are to control cancer and prolong survival while above all maintaining a good quality of life. While we expect the side effects to be minimal and predominantly self-limiting, there are instances when they can be severe and even life-threatening. Early detection and immediate intervention can minimize progression to a life-threatening state.

For more information or to refer a client to the Oncology Service at Angell, please call Gary Vanasse at 617 541-5136, email oncology@mspca.org or visit www.mspca.org/oncology.

Save Sunday, November 9, 2008 for Pain Management CE Seminar

Sunday, November 9, 2008 8am-4pm
Angell Animal Medical Center
350 S. Huntington Ave., Boston, MA 02130

This educational seminar on Pain Management is open to veterinarians, veterinary technicians and veterinary students.

Speakers include Lisa Moses, DVM, DACVIM; Rebecca Remillard, PhD, DVM, DACVN; Allen Sisson, DVM, MS, DACVIM; Debbie Ruehlmann, DVM, MS, DACVIM; and Andrew Farabaugh, DVM. Additional speakers to be scheduled at a later date.

Visit www.angell.org/ce or call 617 541-5192 for more information or to register.

Angell Animal Medical Center

**350 South Huntington Ave.
Boston, MA 02130
Main Phone: 617 522-7282
Veterinary Referrals:
617 522-5011**

Chief of Staff

Ann Marie Manning, DVM,
DACVECC

Avian Exotics

Jennifer E. Graham, DVM, DABVP
Connie J. Orcutt, DVM, DABVP

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Stefanie Schwartz, DVM, MSc,
DACVB

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Rebecca L. Malakoff, DVM,
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Nicholas J. Trout, MA, VET MB,
MRCVS, DACVS, DECVS

Angell Animal Medical Center Referral Guide

Cardiology Service

Referral Liaison: Robin Grammer
Referral Line: 617 541-5038 Referral Fax: 617 989-1653
Email: cardiology@mspca.org Web site: www.mspca.org/cardiology

Dermatology Service

Referral Liaison: Rebecca Stlaske
Referral Line: 617 524-5733 Referral Fax: 617 989-1613
Email: dermatology@mspca.org Web site: www.mspca.org/dermatology

Neurology Service

Referral Liaison: Natasha Bureau
Referral Line: 617 541-5140 Referral Fax: 617 989-1666
Email: neurology@mspca.org Web site: www.mspca.org/neurology

Oncology Service

Referral Liaison: Gary Vanasse
Referral Line: 617 541-5136 Referral Fax: 617 541-5130
Email: oncology@mspca.org Web site: www.mspca.org/oncology

Pain Medicine Service

Referral Liaison: Natasha Bureau
Referral Line: 617-541-5140 Referral Fax: 617-989-1666
Email: painmedicine@mspca.org Web site: www.mspca.org/painmedicine

**For all other referrals, please continue to call Eleanor Cousino,
Angell Referral Coordinator at 617 522-5011.**



350 South Huntington Avenue
Boston, Massachusetts 02130

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