



THE WINN FELINE FOUNDATION

For the Health and Well-Being of All Cats

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HEALTH NEWS

From THE WINN FELINE FOUNDATION

Summaries by Betty White 6/07

“Transdermals Effective for Feline Hyperthyroidism.” While the title suggests but one topic for this article by Anthony Carr, DVM, it actually discussed three papers presented at the 16th ECVIM-CA Congress in Amsterdam, The Netherlands, in 2006. [*Editor’s Note: Two of these studies will be discussed here.*] The first paper reviewed addressed a study by researchers from the University of Zurich of the effectiveness of transdermal methimazole on newly diagnosed hyperthyroid cats. The authors formulated methimazole in PLO gel (pleuronic lecithin organogel), and administered 2.5 mg twice daily. This formulation achieved control of hyperthyroidism for 67 percent of the 20 cats in the study, although nine cats needed the dosage increased for control of the malady, (3.5 up to 8.7 mg per application). Adverse side effects were rare; when they did occur, they were similar to those seen with oral administration of the drug. The authors concluded that methimazole in PLO gel is effective in long-term hyperthyroid management, and the gel formulation appears to be well tolerated by cats.

Hyperthyroidism is associated with a decrease in renal function, and there is always concern that significant renal disease will be found upon treating the hyperthyroid cat. Researchers from the Royal Veterinary College in London conducted a retrospective study of 116 cats treated between 1995 and 2004 to determine whether the development of azotemia -- elevated waste products in the bloodstream -- after therapy for hyperthyroidism affects survival. The study indicated that mild azotemia occurring after treatment for hyperthyroidism does not affect outcome. In fact, considering that hyperthyroid cats are usually geriatric, the survival time after treatment for hyperthyroidism is relatively long.

[Carr, A. (2007). Transdermals Effective for Feline Hyperthyroidism. *Veterinary Practice News*. March, 2007: 24.]

“Understanding the Gap in Feline Care.” Since cats outnumber dogs in American homes by 90 million to 62 million, why do veterinarians routinely examine and treat far more dogs than cats? The author of this article, Arden Moore, interviewed the late James Richards, past president of the American Association of Feline Practitioners and, at the time of his death, director of the Feline Health Center at Cornell University. Dr. Richards said, “Cats give us the impression that they can take care of themselves – it is their nature

to appear self-sufficient. Dogs typically give owners and veterinarians a lot more opportunities to witness what they do. Dogs are taken for walks and are usually fed a couple of meals a day, so owners can tell if there are any problems, such as diarrhea or lack of appetite. In a multi-cat household, owners tend to just put food out and refill the bowls, and do not necessarily know if one cat is eating too much or not enough.” Another factor mentioned was the initial cost of the cat. Cats typically cost far below what people spend to adopt dogs, and this contributes to a perceived difference in value. If a health or behavior problem develops, it is easier to give away what did not cost much in the first place.

The gap in care was a focal point at the recent Hill’s Global Symposium on Feline Care held in Toronto, Canada. One report stated that 35 percent of owners did not take their cats to their veterinarians in 2005 and, on average, cats are taken to veterinarians for routine preventative and wellness care about half as often as dogs.

It is reported that the population of owned cats is growing 25 percent faster than dogs, so something needs to be done to address this disparity in cat care. Morris Animal Foundation, which funds studies for all companion animals, plans to launch a 2008 Feline Affirmative Action Campaign.

[Editor’s Note: The author of this article means to explain the inexplicable and, in so doing, overlooked an important statistic: pedigreed vs. mixed-breed pet dogs and cats. In other articles relative to this issue, many veterinarians have been quoted as saying that the majority of dogs they treat are registered breeds, while pedigreed cats are a minority of the cats they see. This would suggest another reason why cats are under-valued.]

[Moore, A. (2007). Understanding the Gap in Feline Care. *Veterinary Practice News*. March, 2007:25.]

“Allergens Can Trigger Feline Asthma.” Writing for *Veterinary Practice News*, Gary D. Norsworthy, DVM, discusses feline asthma, the most common cause of coughing in cats. Coughing in the cat is observed when the cat assumes a crouched-down, extended-neck position. Also known as bronchial asthma and allergic bronchitis, asthma is considered an allergic disease. Feline asthma is often progressive, resulting in chronic lung changes. In severe cases, cats may wheeze, breathe through their mouths, have labored breathing, and/or exhibit a bluish or purplish discoloration of the gums and lips. The usual suspects causing the allergic response resulting in asthma are grass and tree pollens, house dust mites, smoke of any kind, dusty cat litter, flea powders, and aerosol sprays such as hair sprays, flea sprays, and household deodorizers. In some cases, the culprit is a particular food. It should be noted, however, that heartworms often cause a steroid-responsive cough in cats, as well as lungworms, chylothorax, pulmonary masses, ascarid larval migration, or bronchial foreign bodies.

A preliminary diagnosis is made on the basis of the characteristic cough, with radiographs taken to strengthen the diagnosis. Because some asthmatic cats have normal radiographs, the severity of disease is not always consistent with the radiographic changes. The diagnosis may be confirmed with a bronchial wash or a bronchial alveolar lavage. Treatment depends upon the severity of the disease, with corticosteroids used most consistently because they directly affect the allergic reaction. These may take the

form of long-acting injectable, inhaled, or oral drugs. Bronchodilators may also be used, either intermittently or continuously. In severe cases, oxygen needs to be administered in whatever manner is most acceptable to cat and owner.

Attempting to determine the offending allergen should certainly be tried, although this is often a low-yield procedure. The short-term prognosis is usually good, although some chronically affected cats develop pulmonary fibrosis and emphysema.

[Norsworthy, G. D. (2007). Allergens Can Trigger Feline Asthma. *Veterinary Practice News*. April, 2007: 25-26.]

“Heartworms Easy to Overlook in Cats.” Marissa Heflin discusses the “2007 Guidelines for the Diagnosis, Prevention, and Management of Heartworm Infection in Cats,” released by the American Heartworm Society. These guidelines pay special attention to a newly-defined, heartworm-associated respiratory disease, referred to as HARD. She quoted the president of the society, Tom Nelson, DVM, who said, “Each year cats die needlessly from complications related to this very preventable disease.”

Some cats never exhibit signs of the disease, even though a small number of the worms can be life-threatening. When signs are evident, it is usually during the first stage when the heartworms enter a blood vessel and are carried to the pulmonary arteries, or during the second stage when the heartworms die. First-stage signs are often misdiagnosed as feline asthma or allergic bronchitis. The second stage often leads to acute, fatal lung injury. The signs of HARD include difficulty breathing, convulsions, diarrhea and vomiting, blindness, rapid heart rate, fainting, coughing, lethargy, anorexia, weight loss, and sudden death. Diagnosis is complicated by tests with limitations. For instance, antigen tests detect only adult female or dying male worms. Immature or male-only worm infections are rarely detected. Since heartworm infection is harder to detect in cats than in dogs, the newly-updated guidelines provide information on interpreting serology test results.

Studies indicate that while 59 percent of dog-owning U.S. households regularly give heartworm preventatives, fewer than 5 percent of cat-owning households use a heartworm-preventative product. The American Heartworm Society and The American Association of Feline Practitioners have joined forces to educate veterinarians and cat owners about the disease and the importance of prevention. The KNOW Heartworms campaign will stress the five myths and misunderstandings about HARD:

1. Heartworm disease is as devastating to cats as it is to dogs.
2. Indoor cats are just as susceptible as outdoor cats. Mosquitoes transmits the disease.
3. Heartworm disease mainly affects the lungs.
4. All life-cycle forms of the heartworm can cause serious disease.
5. Diagnosis is difficult, making prevention that much more important.

[Heflin, M. (2007). Heartworms Easy to Overlook in Cats. *Veterinary Practice News*. April, 2007: 29.]

“Oral Chemo Has Advantages.” Kevin A. Hahn, DVM, PhD, writes that prescribing oral chemotherapy for cats and dogs with cancer is now commonplace, especially in the

treatment of lymphoma and the leukemias. As more and more new drugs are coming on the market to fight human cancer, it is reasonable to assume that veterinarians will have cutting-edge medications for use in cats and dogs to treat fibrosarcoma, squamous cell carcinoma, and other cancers. How do the oral medications compare in efficacy to the intravenous counterparts? What are the safety considerations in storing, dispensing, and handling cytotoxic agents with regard to the pet, pet owner, and veterinary staff?

What oral medications do NOT do is reduce the risk of dose-calculation errors or reduce injection-site reactions. (The latter is related to the skill of the veterinarian or members of his/her staff.) Nor do oral medications necessarily reduce costs, as many cost as much as the injectable counterparts and may require closer follow-up evaluations. As for safety and toxicity, these considerations are relative for both intravenous and oral medications. Pet owners, as well as veterinary staff, must be aware of the proper handling of cytotoxic agents. Skin contact with these agents should be avoided at all times, and tablets should not be broken or crushed. The integrity of packaging should never be assumed, mandating the use of gloves when handling loose tablets.

Nonetheless, there are many advantages to using oral chemotherapy over other kinds of medications when determining a treatment protocol. Drug cost and the ease of administration are primary considerations. Safety, however, is a factor as well.

[Hahn, K. A. (2007). Oncology Outlook: Oral Chemo Has Advantages. *Veterinary Practice News*. April, 2007: 30-31.]

“Intracavitary Chemotherapy Treats Certain Cancers.” Considering that the direct approach is the best approach for fighting cancer, Dr. K. A. Hahn has previously written in his monthly “Oncology Outlook” column about injecting chemotherapy directly into a tumor. Most recently, he discussed using intracavitary chemotherapy to treat malignancies and effusions of the peritoneal or pleural cavity. The leading cause of fluid accumulation in the pleural or peritoneal area is carcinomatosis. Besides epithelial cancers or carcinomas originating in the lung, breast, bladder, or prostate, other types of cancers that have spread throughout the body and onto visceral surfaces may cause malignant effusion. Small lesions of this latter type of cancer may be masked by fluid on survey images and difficult to find on ultrasounds. Tumor “seeds” are distributed across visceral surfaces, causing friction and inflammation that the body responds to by producing fluid. Owners report that their pets are lethargic, have rapid and labored breathing, appetite loss, and bloating in the body cavity affected by the disease. Physical examination may reveal little, with diagnosis reached from cytological or histological evaluation of the suspected tissue, from fluid analysis and sediment review, or from biopsy.

Since the goal of any chemotherapy is to attack the tumor in the highest possible concentration, a drug must be chosen for the intracavitary approach that has longer exposure over time to the tumor, with shorter exposure to normal tissues. The preferred drug should also metabolize rapidly in the liver, as rapid hepatic elimination would reduce toxicity of the drug before entering systemic circulation. Dr. Hahn discusses his own protocol, a dilution and infusion of carboplatin either every week or every three weeks. He insists that pets must be evaluated weekly, sometimes daily, because the

instillation of fluid in the chest or abdomen may continue to compromise the pet's quality of life. Repeated fluid removal is commonplace for the first two to six weeks of care.

In terms of quality of life, intracavitary chemotherapy provides the majority of pets another two to six months of quality time. In reducing toxicity, decreasing morbidity, and increasing client satisfaction, intracavitary chemotherapy has enough appeal for consideration as another direct approach in managing cancer in pets.

[Hahn, K. A. (2007). Oncology Outlook: Intracavitary Chemotherapy Treats Certain Cancers. *Veterinary Practice News*. May, 2007: 22.]