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THE CAPSULE REPORT® On Animals

Small Animal/Exotic Edition

Our 30th Year

Volume 31, Number 8 **November 2012**

Feline atopy

If a patient's history supports a diagnosis of atopy and other differential diagnoses have been ruled out, skin or serum testing is in order, particularly if the cat requires more than a minimum of corticosteroids annually. What constitutes a minimum of corticosteroids is a relative question. This author prefers not to administer more than 3 methylprednisolone injections annually—and even less than that if there's any evidence of heart disease. Prolonged use of corticosteroids in cats may lead to diabetes or heart disease, and now that immunotherapy and cyclosporine are excellent alternatives to corticosteroids, hopefully those two diseases can be further prevented.

Alice M. Jeromin, RPh, DVM, Dip ACVD
DVM News Mag, Jun 2012

Exposure to permethrin in the cat

If patients are asymptomatic, prompt dermal decontamination by bathing with liquid dish soap is warranted. Symptomatic patients should be stabilized before bathing. Because handling and bathing can exacerbate tremors or seizures, it is critical to control clinical signs first. Treat tremors with methocarbamol (55-220 mg/kg, IV, not to exceed 330 mg/kg/day). Although IV methocarbamol is preferred, methocarbamol can be administered at 50-100 mg/kg, PO or crushed and administered with water or saline at 100-150 mg/kg, rectally. This can be repeated to effect q4-8h and the dose titrated to effect. Seizures should be treated with phenobarbital (2-5 mg/kg, slow IV to effect) or gas anesthesia. The use of diazepam (0.5-1 mg/kg, IV) or propofol (3-6 mg/kg, slow IV to effect or 0.1-0.6 mg/kg/min, CRI) can also be considered if other therapeutics are ineffective. Pyrethroids are not organophosphates and should not be treated with atropine. Oral activated charcoal is contraindicated in symptomatic patients and should only be used when large oral exposures have occurred. Prognosis is generally good with prompt treatment. Even close contact between treated dogs and cats can result in toxicity.

Brandy R. Sobczak, DVM
NAVC Clin Brf, 10:5

INSIDE THIS ISSUE

FeLV, testing kittens

Kittens can be tested at any age, as passively acquired maternal antibody does not interfere with testing for viral antigen. Newborn kittens infected via FeLV-positive queens may not test positive for weeks to months after birth. While it may be tempting to test only a queen and not her kittens in an attempt to conserve resources, it is inappropriate to test one cat as a representative for others. If a queen or any one of her litter of kittens tests FeLV-positive, all should be considered potentially infected and isolated, with follow up testing to resolve status. Susceptibility to FeLV infection is age-related, with the highest infection rates in very young kittens. Shelters sometimes test pooled blood samples from litters of kittens in order to save money, but this practice should be discouraged as the reliability of this method is unknown. Kittens or cats that test negative but have a known or suspected exposure to FeLV should be retested no earlier than one month after exposure to rule out false negative test results obtained during incubation of the virus. Periodic testing of cats at ongoing risk of FeLV infection is justified and is not generally compromised by vaccination. However, blood collected immediately following vaccination may contain detectable FeLV antigens from the vaccine, so samples should be collected prior to FeLV vaccination. It is not known how long this test interference persists.

Susan Little, DVM, Dip ABVP
CVC Wash DC, 2012

Keeping wounds moist

An old wives' tale states that wounds should be exposed to air and form a scab, but studies have shown that this grandmotherly advice is wrong. Wounds tend to do better in a moist environment so platelets can build the scaffolding and white blood cells, fibroblasts and epithelial cells can migrate through the wound. Those cells that are going to build new tissue on the wound function best in a nice, warm environment. When we leave a wound open to the world, it dries out and is too cold.

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The cells cannot do their job appropriately. You don't want it soaking wet or oozing, but keeping it under a moisture-retentive dressing is usually a good idea.

Bonnie Campbell, DVM, PhD, Dip ACVS
Vet Pract News, Jul 2012

Vaccine intervals

Question: "The vaccination guidelines from AAHA and the American Association of Feline Practitioners (AAFP) do not match many of the labels on vaccines. Why is there this inconsistency, and how does one best serve clients' pets?" Labeled interval instructions are manufacturer-suggested intervals and are really recommendations of minimum duration of immunity. While they might be referred to in a legal proceeding, they are not legally binding directives. These recommendations were, in many cases, developed years ago, and there has been a good deal of discussion about completely eliminating the mention of intervals from labels. The AAHA and AAFP guidelines are based on scientific studies and expert input. The various guidelines have been widely adopted and have stood the test of clinical as well as scientific examination. In most cases, they have come to be accepted by experts as well as by practicing veterinarians and would be completely defensible in court.

Michael A. Paul, DVM
Vet Med, Oct 2012

Lidocaine anesthesia

Lidocaine, the least expensive agent, has the shortest onset of all local anesthetic drugs, but it also has the shortest duration. Bupivacaine has slower block onset than lidocaine does, but it provides longer block duration. Using a combination of these two drugs provides the positive qualities of these two agents and often more than enough drug volume. Studies in people suggest that adding morphine or buprenorphine to the local anesthetic agent mix enhances the quality and duration of analgesia, and these authors use 0.075 mg/kg morphine or 0.005 mg/kg buprenorphine in this manner in dogs and cats.

Robert M. Stein, DVM, DAAPM and Stephanie Ortel, LVT, BVS
Vet Med Supp, 06:08

Risk factors for GDV

The results of the present study involving 2,551 dogs, have potential impact for general practitioners, emergency clinicians, and surgeons providing counseling for dog owners on the long-term management of dogs with a high risk for GDV. The most profound change in management would be relaxing the recommendations for activity restriction after meals. In addition, regular moderate outside activity should be encouraged because dogs that spent an equal amount of time indoors and outdoors had a decreased risk of GDV in this study. Dietary management appears to play an important role, and dry kibble may not be the best choice for dogs at risk for GDV; however, supplements with fish or eggs may reduce this risk. This study was unable to show an association between GDV and feeding frequency, speed of eating, or eating from a height; therefore, no specific recommendations concerning these factors can be made at this time.

Marko Pipan, DVM, Dip ACVECC et al.
JAVMA, Jun 15, 2012

Hunting toys for cats

Opportunities to express hunting behavior are a basic need for a cat. If a cat doesn't have the opportunity to hunt, toys meeting appropriate criteria are small (prey-sized), make high-pitched squeaks or cheeps and move in a rapid, unpredictable fashion. The Indoor Pet Initiative offers an informative piece on choosing the correct toy for an individual cat: http://indoorpet.osu.edu/cats/basicneeds/preypref/index.cfm. Allowing them to hunt for their food (bowl) or using a feeding toy are mentally stimulating. Examples of toys of this sort include: Pipolino (www.pipolino.ca/eng/pipolino.html); Multivet Slim Cat (www.petsafe.net/Products/Feeders/SlimCat.aspx); Cat Activity Fun Board (www.traininglines.co.uk/cat-activity-fun-board-3397-0.html); Go!Cat!Go! Play-N-Treat balls; FUNkitty Egg-Cersizer: (www.premier.com).

Margie Scherk, DVM, Dip ABVP
CVC Wash DC, Apr 2012

Food allergy in the cat

Suspect food allergy in cats with intense head or neck pruritus. The degree of self-excoriation that occurs with food allergy can be substantial and dramatic. Although other differentials would include ear mites, atopy, otitis externa, and scabies, they typically do not demonstrate the same degree of self-mutilation. A strict novel antigen diet is recommended and most patients show dramatic improvement within a few days.

Kenneth Harkin, DVM, Dip ACVIM
Cent Vet Conf Procd, 09:07

Sources of novel meats and starches

Omas Pride (fresh exotic meats such as alligator): www.omaspride.com. Evangers (canned meats, including rabbit, duck, venison, and pheasant): www.evangersdogfood.com. Wysong (canned rabbit meat; beware as the company has been reported to add beef plasma to its other canned novel meats): www.wysong.net. Addiction foods (Unagi and seaweed; brushtail and potatoes {with venison}): www.addictionfoods.com.

Susan G. Wynn, DVM
N Amer Vet Conf, Vol 22, Procd

A bulk phosphate binder for the cat

Spectrum Chemical (www.spectrumchemical.com); Catalogue #: AL226-500GM, Dried Aluminum Hydroxide Gel, Powder, USP - 500 g. Must be in each meal to bind the phosphates in that meal. Mix in canned food or "shake in a baggy" with dry food.

Dose: 1/4 teaspoon per cat, BID in food. Dose can be increased 2-4X if needed to reduce phosphorus to < 5.0. Tasteless but there will be a limit as to how much you can add to food without it reducing palatability of food. Can be placed in water or other liquid and syringed orally.

Gary D. Norsworthy, DVM, Dip ABVP
100th KY VMA Conf Procd

Treatment of FIV-infected cats

If no clinical signs are present: No treatment is indicated; cat should be kept strictly indoors and should not be vaccinated. *If clinical signs are present:* Always look for underlying disease. FIV alone is typically not responsible for clinical signs; treat underlying disease as indicated. *FIV with stomatitis:* Avoid use of glucocorticoids. This author begins with azidothymidine (AZT), 5-10 mg/kg, PO, q12h and antibiotics. If stomatitis persists, removal of all teeth (typically in 2 surgical events with total removal of all tooth roots confirmed by radiography) is recommended. *FIV with neurologic signs:* Look for any underlying disease responsible for neurologic signs. Treat underlying disease as indicated. If no underlying disease is present and neurologic signs are presumed to result from FIV infection, initiate treatment with AZT, 5-10 mg/kg, PO, q12h. *FIV with recurring secondary infection:* Treat recurring infection(s) aggressively (e.g., long-term antibiotics). Monitor virus load by quantitative RNA qPCR testing. Monitor CD4+ and CD8+ T-lymphocyte counts. If virus load is high and CD4+ T-lymphocyte counts are low, consider treatment with antivirals (e.g., plerixafor, 0.5 mg/kg, SQ, q12h or AZT, 5-10 mg/kg, PO q12h.)

Katrin Hartmann, Dr. med. vet., Dr. habil., DECVIM-CA
NAVC Clin Brf, May 2012

Levetiracetam for seizures

Levetiracetam has the shortest half-life of the four anticonvulsants (bromide, phenobarbital, zonisamide), and with the standard formulation, must be dosed on a strict q8h schedule. There is a new extended-released (XR) formulation, however, which seems to be effective in dogs at a q12h-dosing schedule. These tablets cannot be broken or divided and come only in a 500 mg size, which is the appropriate starting dose for a 30-pound dog. Thus, XR levetiracetam is most useful in dogs that weigh a multiple of 30 pounds. Levetiracetam rarely has any side effects in dogs and has essentially no organ toxicity. It is a moderately expensive medication.

Stacey Sullivan, DVM, Dip ACVIM
So Cal VMA Pulse, Jul 2012

Reliability of compounded trilostane

These researchers evaluated 96 batches of compounded trilostane capsules in 15-, 45-, and 100-mg sizes purchased from eight different pharmacies. These were compared with 15-mg capsules made with the licensed product, capsules containing inert materials, and proprietary capsules in 30- and 60-mg sizes. All capsules were analyzed for content and dissolution characteristics and compared with the specifications for the licensed product. Results showed there was a wide variability in drug content among the compounded trilostane batches—39% to 152.6% of label claim—compared with the variance for the controls, which was 96.1% to 99.6%. The average dissolution rate of the compounded batches was also lower than for the controls—76% vs. 85%, respectively. It was concluded that the wide variability in content and dissolution rates of compounded trilostane products may compromise effective management of patients being treated for hyperadrenocorticism. Patients may be overdosed or underdosed when using these products, which may prompt owners to discontinue therapy and negatively impact patient care. If nonapproved capsule sizes are required, it is important clinicians be aware of the source of the trilostane being used.

A. K. Cook et al.
JAAHA, 2012;48(4)

Emesis in toxin cases

Owners should always be advised to present their animals to a veterinarian for evaluation if any potential intoxication has occurred. When owners are unable to seek medical care or there will be a significant delay before the animal will receive medical care, instructions should be provided in an effort to minimize the degree of toxin exposure. If an animal has had a topical exposure it should be immediately washed with mild soap and copious volumes of warm water. Advise the owners to wear gloves while handling the pet. If the animal has been witnessed to ingest a substance considered non-caustic within the last 2-3 hours then presentation of the animal to the closest veterinary facility for evaluation and possible induction of emesis is advised. If an owner declines veterinary care then instructions can be provided for ***inducing emesis at home*** along with warnings of possible complications of this procedure. Emesis can be induced by giving 3% hydrogen peroxide (1-2 ml/kg, orally in dogs and cats) or syrup of ipecac (1-2 ml/kg in dogs, 3 ml/kg in cats orally). Owners should be advised to bring any possible toxic substances with them for examination with the packaging when possible.

Kate Hopper, BVSc, PhD, Dip ACVECC
UC Davis Symp Procd, May 2012

Hypothermia and anesthesia

The negative impact of hypothermia is greatly underestimated and may be a contributing factor in anesthetic related deaths. The greatest rate of heat loss takes place immediately after induction and during the first 20 minutes of anesthesia as a result of redistribution of heat from the core to the periphery. However, it is important to note that ***heat loss begins immediately***

after premedication, because sedatives and tranquilizers will depress the hypothalamus. This is a time when we can initiate intervention by keeping the animals that are waiting for anesthesia warm. This is called pre-induction warming. Heat continues to be lost after the initial steep drop but at a lower rate. Ideally, core temperature should be monitored with a probe placed in the esophagus or on the tympanic membrane. Rectal temperature reflects the peripheral temperature and lags behind core temperature changes, giving a falsely high estimate of the animal's true body temperature. Circulating warm water blankets are effective in small patients and are more effective when placed on the limbs than on or under the trunk.

Sheilah Robertson, BVMS (Hons), PhD, Dip ACVA, MRCVS
79th AAHA Conf Procd

Increasing compliance

Use the term "intestinal parasite test" rather than "fecal test." Intestinal parasite test more accurately describes the diagnostic test and educates clients about the need for regular screening. Avoid medical jargon such as "zoonotic disease." Instead say "parasites that can be passed from pets to people." Testing is equally important for indoor cats because ***15% of potting soil contains roundworms.*** Cockroaches, mice, crickets, and flies can carry roundworm eggs. Cats are natural hunters and could become infected through their prey.

Wendy S. Myers
Nestlé Purina Sym Procd, 2012

Cyclosporine treatment of feline stomatitis

An alternative treatment if cats are immunocompetent and do not respond to extractions or if ω-interferon cannot be acquired. Should not be given to immunocompromised patients. Perform pretreatment CBC and renal function tests, as possible adverse reactions include anemia and renal dysfunction. Cyclosporine A (Atopica, Neoral,) strongly recommended, as bioavailability differs among products. Begin at 2-2.5 mg/kg, q12h. Retest renal and CBC values at 3 weeks. Test blood cyclosporine levels at 6-8 weeks to ensure minimum value of 300 ng/ml. If blood value is too low, adjust dose to as much as 5 mg/kg, q12h. Prognosis using cyclosporine A after extractions: large majority of previously unresponsive cats improve; poor response usually attributed to idiosyncratic low levels of cyclosporine absorption and suboptimal blood levels. Increased doses allowed improvement of blood levels in most of these suboptimal absorbers and corresponding improvement of oral inflammation.

Judy Rochette, DVM, FAVD, DAVDC
NAVC Clin Brf, Jun 2012

Leptospirosis treatment

Penicillin G is still considered the classic treatment for lepto (40,000 U/kg, IM or SQ, q12-24h, dose reduction with azotemia). Because of the problems with dosages in renal failure it is better to use alternative drugs. Ampicillin (22 mg/kg, PO, SQ, or IV, q6-8h) or amoxicillin (22 mg/kg, PO, q8-12h) can be used. These antibiotics terminate the leptospiremia, but do not clear the renal carrier state. Doxycycline (5 mg/kg, BID for 2, better 3 weeks) can be used to clear the leptospiremia as well as the renal carrier state. It does not depend upon the kidney for elimination so dosage adjustment is not needed. Cephalosporins, chloramphenicol, sulfa drugs and possibly the fluoroquinolones may not be very effective, though data is discordant. Streptomycin is commonly reported as a drug of choice but is nephrotoxic and usually not available. Most likely a combination of penicillin and doxycycline is the preferred treatment plan.

Anthony P. Carr, DVM, Dip ACVIM
CVC Wash DC Procd, 2012

Minimizing anesthetic complications

Continue to monitor patients in recovery and provide supportive care to prevent hypoxemia and hypothermia, because the majority of anesthetic deaths in cats and dogs occur during recovery from anesthesia. Monitoring of patients and supportive care (IV fluids, supplemental oxygen, temperature support) are typically withdrawn when patients recover from anesthesia, and this likely contributes to morbidity and mortality following anesthesia. Have a trained technician dedicated to monitoring each anesthetized patient. This is one of the most important factors in reducing adverse anesthetic outcomes. Obtain a detailed history and perform a thorough physical examination on the day of anesthesia. Assess underlying disease and modify anesthetic management to minimize risk of hypotension, hypoventilation, hypothermia, hypoxemia, and hypoglycemia. We need to create opportunities to ask clients questions about the health status of their pet at the time of admission for anesthesia and surgery so that we don't miss seemingly unrelated signs of disease (e.g., diarrhea in a patient presenting for dental procedure). Administer preanesthetic medications to achieve analgesia, reduce anesthetic requirements, and minimize stress, even (and especially) in fractious cats. All patients healthy and sick—benefit from preanesthetic medications. Acepromazine has been found to decrease perianesthetic mortality, while xylazine increases risk of death. Full-mu opioids, including morphine, hydromorphone, oxymorphone, and fentanyl, are appropriate and effective analgesics and preanesthetic medications in cats and dogs.

Heidi Shafford, DVM, PhD, Dip ACVA
79th AAHA Conf Procd, 2012

Welcome Dr. Bower of Phoenix, AZ to The Capsule Report