



A digest of practical and clinically relevant information from this month's journals and proceedings

Our 28th Year

Adjusting pets to a new baby

There may be situations when you or your clients think that a more in-depth approach is needed or that the problems are beyond your comfort level. This is the time for a referral to a board-certified veterinary behaviorist. You can find a list of diplomats of the ACVB at www.dacvb.org. If no behaviorist is in your area, you can contact the American Veterinary Society of Animal Behavior through its website at www.avsabonline.org for information about veterinarians in your area who have an interest in behavior but may not be board-certified. Although there may be a temptation to refer to trainers or other lay people calling themselves *behaviorists*, this may not be your best option. If you do not refer to a boarded specialist, you may be held responsible in a situation of liability or malpractice. So if you refer to a trainer, you retain primary responsibility for the case and should follow up with the owners and be fully aware of the training techniques being used. A website for families with pets and kids is www.GrowingUpWithPets.com.

Laurie Bergman, VMD, Dip ACVB
Vet Med, 101:10

Periodontal disease and heart disease

This study of over 59,000 dogs revealed a significant relationship between periodontal disease and an increased risk of endocarditis and cardiomyopathy in pet dogs. Veterinarians should educate pet owners about the potential health implications of periodontal disease and encourage them to practice home dental care, including a thorough oral examination as an essential part of a wellness program in companion animals throughout all life stages.

Lawrence T. Glickman, VMD, DrPH et al.
JAVMA, Feb 15, 2009

Observing the lame dog

Observe the head during movement. To protect a sore forelimb, animals quickly shift their weight from the affected limb, making it appear that they are landing heavily on the opposite or "good" limb. Animals with forelimb lameness will lift their heads after the lame limb strikes the ground in an attempt to remove the weight from the affected limb. Owners will often be confused by this observation and be-

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lieve the lame forelimb is the one in which the dog drops its head when the foot strikes the ground. Indeed, it is the exact opposite; the head drops on the sound forelimb and is raised on the lame forelimb. When there is pain in a rear limb, the opposite head movement is present; the dog will extend the head and neck and pull the affected hip upward (hip hike) when the lame limb contacts the ground. As such, the head drops when the lame limb strikes the ground. Have the dog stand and observe the degree of weight bearing with each limb. Lift the foot of each limb in succession to determine the ease with which the dog allows the foot to be raised from the ground. The foot of a sound limb may be more difficult to lift from the ground since this forces weight to be borne on the sore limb. The opposite is true when lifting the foot of a sore limb; the dog does not resist this maneuver since it merely shifts more weight to the sound limb. Animals with bilateral lameness may not limp but often show more subtle signs (e.g. shifting their weight from limb to limb while standing, shortened stride, or bilateral muscle atrophy).

Don Hulse, DVM
Ok St CVM Conf Procd, 10:06

Feline atopy

The files from this author show that the majority of atopic cats are orange in color or have orange in them (i.e., calico or tortoise-shell). Also, the majority seem to be <1 year of age. Another sign of atopy seen by the author is alopecia of the hocks. Before proceeding with any workup for atopy, it is essential to rule out any ectoparasites. Flea-allergy dermatitis and Cheyletiella mites can produce the same clinical signs as atopy in the cat. If you're not getting a history of flea or Cheyletiella exposure, it is still a good idea to empirically treat for ectoparasites and be sure to test and treat all the pets in the household. The author uses selamectin topically every 15 days for 3 doses on all the dogs and cats in the household as well as treats the environment. At the same time, especially in nonseasonally

The Capsule Report.®

affected cats, it is a good idea to start a hypoallergenic diet trial and continue with that for 4-6 weeks.

*Alice Jeromin, DVM, Dip ACVD
DVM, Feb 2009*

Treatment of bartonellosis in cats

Administration of antimicrobial agents does not consistently eliminate bacteremia and use of antibiotics in healthy cats has not been shown to lessen the risk of cat scratch disease. In addition, treating healthy cats with antibiotics that do not eliminate infection may predispose to resistant strains of the organism. Thus, in the U.S., treatment is generally recommended for clinically ill cats. If clinical bartonellosis is suspected, the AAEP Panel Report recommends doxycycline at 10 mg/kg, PO, SID-BID, for 7 days as the initial therapeutic trial. If a beneficial response is achieved, continue treatment for 2 weeks past clinical resolution of disease for a minimum of 28 days. If a poor response is achieved by day 7 or doxycycline is not tolerated and bartonellosis is still a valid differential diagnosis, a fluoroquinolone or azithromycin are thought to be reasonable second choices. Other differential diagnoses should be considered for *Bartonella* spp-positive cats that have failed to respond after administration of 2 different drugs with presumed anti-Bartonella activity.

*Michael R. Lappin, DVM, PhD, Dip ACVIM
Ok St CVM Conf Procd, 10:08*

Rectal bromide for seizures

Once a patient's seizure activity is halted, rectal bromide administration can easily be performed, with steady state levels being reached in 24 hours with a q4h loading protocol (100 mg/kg, q4h, intrarectal, for 6 doses). Rectal KBr administration has become somewhat standard in emergency situations and tends to be fairly effective. The protocol does tend to cause further sedation as well as transient diarrhea. A major disadvantage of administering protocols that require profound sedation or a light plane of anesthesia is that alternative drugs that are only available as oral preparations can not be added to the treatment protocol at a time for which they would be most beneficial.

*Curtis W. Dewey, DVM, MS, Dip ACVIM
14th Int VECCS Procd, 09:08*

Heatstroke

Rapid evaporative cooling and volume replacement to optimize cardiovascular support are the mainstays in the treatment of heatstroke. These things together provide for rapid transfer of heat from the core to the skin and the skin to the external environment, which are necessary for effective heat dissipation. Spraying the animal with cool water

and placing it in front of a fan is a very efficient cooling method that utilizes evaporation, conduction, and convection. Ice water baths should not be used as they cause severe vasoconstriction, shunting blood away from the periphery (decreasing cooling by radiation), and cause capillary sludging that delays cooling of the core and can promote DIC. Ice water baths also cause shivering that can increase heat production, cause discomfort to the patient and attendee, and make routine monitoring a challenge. Although gastric lavage, peritoneal lavage, and cold water enemas have been advocated, they are not practical, are labor intensive, can interfere with monitoring, and may lead to overshoot hypothermia. To prevent rebound hypothermia and shivering, active cooling should be stopped when the core body temperature is between 103.5°F and 104°F.

*Scott L. Johnson, DVM Dip ACVECC
Tex A&M CVM Emerg Conf Procd, 11:08*

Blood transfusion in the bird

Blood transfusions may be considered when the patient's PCV is <15% on admission. A homologous (same species) transfusion is preferable to cross-species transfusions (cell life reported as 9-11 days vs. 1-3 days respectively). However, transfusion reactions are rare in birds even when chicken or pigeon blood is used to transfuse distantly related species such as parrots and raptors. The anticoagulant of choice is acid citrate dextrose solution, 1 part:5 parts blood, but a heparinized syringe is also effective when the blood is collected from the donor and then immediately administered to the patient. Approximately 8-10 ml/kg blood may be administered IV or IO, depending on the patient's PCV.

*Cornelia J. Ketz-Riley, DVM, Dr.med.vet
Ok St U CVM Fall Conf Procd, 10:08*

Avoiding use of fear in training

Product sales and related advertising are not the sole source of authoritative but mistaken training techniques that can adversely affect an animal's welfare. Also problematic are dominance-based human behaviors that are extreme and inappropriate interpretations of normal animal behavior. For example, among dogs and wolves, lying down and rolling over onto the back is an expression of submission. In the past, this behavior was incorporated into puppy testing and puppy socialization techniques based on the belief that rolling a puppy onto its back and pinning it there would show it that it must be submissive. However, as with voluntarily or involuntarily being shocked, control is relevant to this interaction. When a human, a giant animal in the puppy's perspective, rolls a puppy onto its back and holds it down, the puppy experiences a frightening event that is forced on it, not a voluntary demonstration of ritualized submission. Because it is so easy to cause fear in animals by such actions, veterinarians who recommend trainers and other animal care professionals need to exercise due diligence in being aware of exactly which techniques local animal care professionals

use when interacting with animals and which they recommend to clients.

*Sharon L. Crowell-Davis, DVM, PhD, Dip ACVB
Comp, 30:7*

Venlafaxine toxicosis

Venlafaxine (Effexor:Wyeth) is a bicyclic antidepressant and acts as a serotonin and norepinephrine reuptake inhibitor as well as a weak dopamine reuptake inhibitor. Cats seem to readily eat venlafaxine capsules. Less than one 37.5 mg capsule is enough to cause mydriasis, vomiting, tachypnea, tachycardia, ataxia, and agitation. Signs generally begin within 1-8 hours after exposure (later if an extended-release formulation was ingested). Emesis may be initiated in asymptomatic patients. Activated charcoal is effective; repeat the dose in 4-6 hours if the animal was exposed to an extended-release formulation. Be sure to monitor the heart rate and blood pressure. Cyproheptadine (1.1 mg/kg, PO, or rectally, up to 3-4 times a day) can be used as a serotonin antagonist, and acepromazine or chlorpromazine can be used to treat agitation. Generally, the prognosis is good with close monitoring.

*Valentina Merola, DVM and Eric Dunayer, VMD
Vet Med, 101:6*

Pancreatitis and withholding food

Nil per os (NPO; nothing by mouth) is beneficial because it rests the pancreas (pancreatic contraction is stimulated by the emptying of food and acid into the duodenum). Prolonged NPO leads to immunosuppression, decreased wound healing, increased bacterial translocation, sepsis, and decreased survival. NPO should not last for more than 48-72 hours, including the time the patient was anorectic before presentation. Cats should not be fasted because fasting has not been shown to be beneficial and may exacerbate concurrent hepatic lipidosis.

*Jacqueline Whittemore, DVM and Vicki Campbell, DVM
Comp, 27:10*

Adequate drug choices for staphylococcal pyoderma

The following drugs are adequate choices for staphylococcal pyoderma, but 10%-30% of staphylococcal strains will be resistant. These are also poor choices for prolonged or repeated use because of the likelihood of drug resistance development over time. The potentiated sulfa drugs have been more often associated with idiosyncratic adverse drug reactions, so some clinicians avoid them. Clindamycin at 5.5-11 mg/kg, PO, BID; Erythromycin at 10-15 mg/kg, PO, TID; Lincomycin at 22 mg/kg, PO, BID; and Trimethoprim-sulfa combinations at 15-30 mg/kg, PO, BID.

*Douglas J. DeBoer, DVM, Dip ACVD
Pfizer Pract Derm*

Failure of an acaricide

After a weekend of backpacking with her dogs, this client was upset because the dogs had a few lone star ticks attached to them. The client had been applying a monthly

acaricide. The last application was 2 weeks ago, and the dogs had not been bathed. The client would like an explanation for why the treatment failed to keep the dogs tick-free. The most likely explanation is the dogs likely entered an area with massive seasonal tick pressure with lone star ticks, which allowed a few ticks to attach despite the overall efficacy of the product being used. Tick populations may cause intense infestation pressure at times of the year when climate and other environmental factors favor their survival. In some cases, the sheer number of ticks questing in a given area may overwhelm control measures. In addition, some acaricides kill ticks after attachment. Close examination of these ticks may have revealed that they are not alive or actively feeding, and thus do not create an infection risk to the pet.

*Susan E. Little, DVM, PhD, Dip EVPC
Vet Med Supp, Mar 2009*

Bowel function and opioids in the cat

The effects on bowel function of pain itself and of analgesics and sedatives used clinically must be considered. Pain can cause bowel stasis, abdominal distention, discomfort, and vomiting, all of which add to a patient's overall misery. Analgesic intervention often results in a dramatic improvement, but opioids are known to decrease bowel motility, especially with long-term use. IM acepromazine (0.1 mg/kg) combined with buprenorphine (0.01 mg/kg) or medetomidine (50 µg/kg) alone provide good restraint without altering orocecal transit time in cats, whereas ketamine (5 mg/kg) and midazolam (0.1 mg/kg) did decrease GI motility. The effects of opioids on bowel function may be opioid-specific and related to dose and duration, but there are few scientific data available for cats. In the author's experience, constipation associated with opioid use is uncommon in cats. Cats receiving opioids should be well hydrated to counteract any potential constipating effects.

*Sheilah A. Robertson, BVMS, PhD, MRCVS
Vet Clin N Amer, 38:6*

Urine culture results that do not change

Culture results which remain unchanged (i.e. the same bacteria exhibiting in vitro susceptibility to the current antimicrobial drug) during appropriate antimicrobial therapy, indicate that antimicrobics are not reaching the site of infection. In some situations antimicrobial administration is sufficient; however, intestinal absorption is impaired. For example, tetracyclines have been recommended as an effective treatment for *Pseudomonas* UTI with a reasonable assurance of success. To facilitate oral administration, some owners package medication in appetizing, malleable foods

such as cheese. However, when human patients were administered demeclocycline with 110 grams of cottage cheese, serum concentrations were 60%-80% lower than when demeclocycline was administered without food. Tetracyclines, not including doxycycline and minocycline, form relatively insoluble chelates with divalent and trivalent metals such as calcium, aluminum, magnesium, and iron. Antacids containing aluminum, magnesium, and calcium also adversely affect absorption of tetracycline and possibly other antimicrobics as well. Therefore, in addition to evaluating whether or not medications are being administered at the prescribed dosage and time intervals, the method of oral administration should be considered as well.

*Jody P. Lulich, DVM, PhD, Dip ACVIM
ME VMA Conf Procd, 01:06*

Restraint of the dog using a towel

For some dogs that do not want to be handled or that may bite, the author twists a thick bath towel so that it resembles a long noodle. Holding an end in each hand, let the towel hang, making a U. While the dog is leashed and standing, hold the towel so that the dog's head slips between the ends. Then twist or hold the ends together so the dog cannot pull out—it looks like a fat doughnut around the dog's neck. Now the dog can be picked up and examined without being bitten. This restraint method works especially well for short-muzzled or small- or medium-sized dogs that are difficult to hold. In addition, the restraint appears to be comfortable for dogs, as they hardly ever resist. Owners also appreciate the gentle technique.

*Kelly Pretasky, CVT
Vet Med, Mar 2009*

Reversal of opioids in neonates

Opioids are frequently used in veterinary medicine to control pain associated with cesarean section. For the most part, puppies and kittens are successfully delivered and vigorous. If the puppies or kittens are depressed after delivery, a small drop of naloxone placed sublingually should reverse the depressant effects of the opiate. Repeat dosing in 30 minutes may be required if the neonates become depressed again. If continual renarcotization in the newborn is a concern, the owner should be given instructions on sublingual administration of a drop of naloxone dispensed in a tuberculin syringe. Other potential causes for perioperative depression must be considered if the cesarean section was not routine.

*Karol A. Mathews, DVM, DVSc
Vet Clin N Amer, 38:6*

Alabama rot in Greyhounds

Idiopathic cutaneous and renal glomerular disease (Alabama rot) is a rare disease seen more frequently in Greyhounds than in other breeds. It is thought to be caused by *E coli* 0157:H7 toxin. The first clinical signs noted are inflamed and painful cutaneous swellings that may crust and progress to slow healing ulcers ranging from a few milli-

meters to several centimeters in length. The most commonly affected sites include the hocks, stifles, or medial thighs. In rare cases lesions may be noted on the forelimbs, thorax, or ventral abdomen. General malaise and inappetence is often associated with this period. Renal disease occurs in 25% of cases and may occur up to 10 days after onset of signs. Alabama rot is diagnosed by histology with supporting blood and chemistry test, urinalysis, and clinical signs. Treatment is supportive and includes topical and systemic antibiotics based on C&S (*Staph* sp are often cultured but are thought to be a secondary pathogen). Those Greyhounds with azotemia should receive IV fluids and symptomatic therapy.

*William E. Feeman III, DVM
Vet Med, 100:8*

Intra-articular stifle block

Flex the joint slightly, and apply digital pressure to the medial side of the patellar ligament. Insert the needle on the lateral side of the patellar ligament midway between the patella and the tibial tuberosity, and direct it medially and toward the intercondylar space of the tibia. After aspirating to ensure correct placement (joint fluid is often identified), inject the chosen drug or drugs. Drugs used include lidocaine 2% at 2-5 mg/kg or bupivacaine 0.5% at 2 mg/kg; +/- morphine at 0.1 mg/kg or buprenorphine at 0.01 mg/kg. Use a sterile 22-25 ga. 1 inch hypodermic needle.

*Christine Egger, DVM, MVSc and Lydia Love, DVM
Vet Med, Mar 2009*

Validity of information Web sites

To the authors' knowledge, there is no scientific basis for any claim that a particular breed of dog is more sensitive to anesthesia than any other, with the exception of sighthound breeds; nevertheless, such claims are prevalent on the World Wide Web. Almost 30% of Web sites in which the primary topic was euthanasia had a warning about breed sensitivity to anesthesia. In this study, clients regularly used the Web to search for veterinary medical information. Anesthesia-related Web sites were generally accurate but were not complete, and most were unconstructive with regard to the information provided. Several breed-specific Web sites included information on breed sensitivities to anesthesia that have not been scientifically established. Veterinary clients should be forewarned that information on the Web is not always accurate, and veterinarians should be prepared to handle clients who bring up information that is inaccurate or erroneous.

*Erik H. Hofmeister, DVM, Dip ACVA et al.
JAVMA, Dec 15, 2008*