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Vomiting in the Miniature Schnauzer

All Miniature Schnauzers with a recurrent history of vomiting and abdominal pain ***should be checked for hyperlipidemia.*** These cases are frequently misdiagnosed as pancreatitis. Idiopathic hyperlipidemia in the Miniature Schnauzer is characterized by acute onset vomiting, anorexia, and abdominal pain with resolution in 2-4 days. Check 12-hour fasting triglycerides, and then manage with Hill's Prescription diet r/d, Purina OM, Eukanuba Restricted Calorie, or Eukanuba Lo-Residue. The addition of salmon oil or other marine fish oil (10-30 mg/kg, PO, q12-24h) may further improve control.

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

Increasing office visits

The first phase of the Bayer veterinary care usage study identified four services that a large percentage of pet owners indicated would cause them to visit the veterinary practice more often: 1) Payment for routine wellness services in monthly installments. 2) Full-year health plans that explain how owners should care for their pets and when visits to the veterinarian are indicated. 3) Competitive prices for products available at the practice that could also be purchased elsewhere (e.g., prescription drugs). 4) Extended business hours. The two areas that appeared to offer the most promise for increasing the number of patient visits were annual health plans for pets and monthly payment for routine services. In the first phase of the study, 39% of respondents said they would visit the veterinarian more often if they had a full-year health plan outlining the necessary care for their pet. Likewise, 45% of pet owners in the first phase of the study indicated that monthly payment plans would motivate them to visit the veterinarian more often.

John O. Volk, BS et al.
JAVMA, 239:10

Feline practice pearls

• Cats with metastasis rarely cough until the end-stage of the disease, whereas cats with reactive airway disease frequently cough very early on in the course of the disease. • Size of the feline mammary tumors is prognostic. • A jaundiced cat is not necessarily a dead cat. In fact, jaundiced cats can live for a long period of time with limited impact to the quality of life. • Liver enzymes are not elevated in 25% of cats with significant liver disease. A liver biopsy is absolutely essential to be able to identify the liver disease. • Ptyalism is the most common clinical sign in cats with portosystemic shunts. • Any bilirubin in the urine is abnormal in the cat. • If the bilirubin is greater than 3 mg/dl, 90% of the cats will have a hepatic problem. If the serum bilirubin is less than 3 mg/dl, 50% of cats will have a non-hepatic problem.

Gregory K. Ogilvie, DVM, Dip ACVIM
Music City Vet Conf Procd, 2012

INSIDE THIS ISSUE

Treatment of prostate cancer

The use of nonsteroidal anti-inflammatory drugs has shown to be a meaningful option in the management of prostatic cancer. This is due to their analgesic properties, but especially the inhibition of prostaglandin synthesis. In addition, elevated concentration of PGE_2 could be found in prostatic tumor tissue. Therefore, drugs selectively inhibiting this pathway, such as the cyclo-oxygenase-2 inhibitors, are real anti-tumor agents. It is the experience of the author that drugs such as piroxicam, meloxicam, and carprofen not only improve quality of life, but improve the clinical signs commonly observed in tumor patients. Depending on the severity of the disease the survival time might be up to a year or longer. In intact dogs, castration or additional hormone treatment may improve the clinical situation, but survival time has not been improved by these measures.

Rafael Nickel, DVM, Prof. Dr.med.vet., PhD, Dip ECVS
N Amer Vet Conf Procd, Vol 22

C-section, exteriorizing the uterus

The highly dilated uterus is extremely fragile and presents a significant risk for rupture. Manipulate the uterus gently. To improve relaxation of ovarian pedicles and facilitate exteriorization of the uterus, ***apply 0.5 to***

2 ml of lidocaine to the ovarian suspensory ligaments, which also dramatically reduces postoperative pain potentially associated with traction on the pedicles. Moreover, traction on ovarian pedicles may induce a vagal reflex, leading to hypotension and bradycardia; lidocaine helps prevent such a reflex.

Karine J. Onclin, DVM, PhD and John P. Verstegen III, DVM
NAVC Clin Brf, 6:5

Kaopectate toxicosis

Kaopectate was not considered toxic to cats until 2002 when bismuth subsalicylate was added. Salicylate is conjugated with glucuronic acid in the liver. So cats are especially susceptible to this xenobiotic. Toxicosis in cats can occur with >25 mg/kg/day of aspirin. A tablespoon (about 15 ml) of regular strength Kaopectate (8.7 mg subsalicylate/ml) given to a 5-kg cat would be the equivalent of 26.1 mg/kg of salicylate. A tablet, which might be more convenient and, therefore, more tempting for owners, contains 102 mg salicylate. A 5-kg cat receiving one tablet would receive 20 mg/kg of salicylate. While both doses are either within or just above the toxic range, many owners will administer the dose more than once a day because the directions on the package instruct the patient to take a dose every 30 minutes to one hour for up to 16 tablets (326 mg/kg) or 16 tablespoon (418 mg/ml). Although it is unlikely an owner will give a cat 16 tablespoons or tablets of Kaopectate, even two or three doses can be fatal for the cat. Clinical signs include lethargy, vomiting, diarrhea, hematemesis, melena, abdominal pain, and severe gastric ulceration and rupture. Treatment involves GI decontamination with emetics and activated charcoal, if ingested within 4 hours of presentation. Initiate fluid diuresis. Administer GI protectants. Evaluate for bacterial translocation from a compromised gastrointestinal tract.

Kristy L. Dowers, DVM, MS, Dip ACVIM
Vet Med, 106:12

Regulating the diabetic cat

When beginning the regulation process a low dose of insulin is used initially, usually 2 units, q12h, for a 4-6 kg cat. The cat is rechecked in about 5-10 days and at about 12 hours after the last dose of insulin; fasting is not needed unless a PLI is performed. The results of that reading are combined with the clinical signs (PU/PD/PP/WL) to determine the appropriate dose. The goal at 12 hours post insulin is for the glucose to be 300-400 mg/dl. Values slightly above that range are acceptable if the clinical signs are controlled following the principle: "It is ***better to under-dose than over-dose."*** It generally takes 2-4 weekly rechecks to achieve regulation. An ultra-low carbohydrate diet, preferably canned, is strongly recommended. Once regulated, cats are seen about every 4-6 weeks for a single glucose check, performed about 12 hours after the last injection of insulin (the high point of the day). The results of that reading are combined with the clinical signs (PU/PD/PP/WL) to determine the appropriate dose. The goal at 12 hours post-insulin is for the glucose to be 300-400 mg/dl. Values slightly above that range are acceptable if the clinical signs are controlled. After doing this for a while (many years in the author's case) one will develop an appreciation of how well cats tolerate reasonable hyperglycemia without adverse effects and how well clients comply. Because this approach is less burdensome to the client than other approaches, most will treat their cats on a long-term basis.

Gary D. Norsworthy, DVM, Dip ABVP
Music City Vet Conf Procd, 2012

Hay for rabbits and rodents

For rabbits and rodents, the nutritional components of hay primarily involve complex carbohydrates, along with adequate levels of calcium and a balanced calcium:phosphorus ratio. In contrast, fruits, nonleafy vegetables, and grains contain higher levels of digestible energy than is present in the natural diets of rabbits and rodents. Hay also provides forage that allows normal tooth wear, results in increased water consumption (protecting against urolith formation), lowers the chance of overeating, and helps maintain normal gut flora. For a hay-only diet to be nutritionally adequate, however, a variety of hay from different locations should be offered. Because owners often obtain hay from a single source, supplying 1 tbsp/kg of high-fiber pelleted feed with a balanced vitamin and mineral content is often recommended. Hay should be changed daily and, while it does not necessarily need to have high nutritive quality, it should be of high hygienic quality. The two most common hays are Lucerne-alfalfa and grass hay. Because the former is higher in protein and calcium and often higher in energy, it is most suited for growing animals.

M. Clauss
NAVC Clin Brf, Jun 2012

Getting hospitalized cats to eat

The feeding behavior of wild cats can help to explain the feeding behavior of domesticated cats. Cats are solitary hunters, capturing small prey, which they eat alone. They eat a large number of meals each day and they eat day and night. Therefore, in the hospitalized environment, providing fresh meals multiple times during the day and night may facilitate food intake. The smell alone of a food associated with digestive disorders is enough to elicit aversion. Cats even go so far as to show aversion for their usual food if it is served in the presence of an air current bearing the odor of a food to which they have developed an aversion. Therefore, it is important to be careful when preparing foods for cats at the hospital. Odors may travel and could trigger an aversion reaction even in cats being fed their usual diet. It is best to prepare the cats' food in a place where food odors cannot reach the cats. Hospitalized

cats may be uncomfortable eating because of the lack of space results in the spatial requirements of cats being disrespected. Moving the cats to larger dog cages, which permits the separation of food, lodging, and litter, may restore the appetite of some cats. When eating their first solid food, kittens do not choose the most palatable food according to innate criteria. They choose what their mothers eat, even if this food is unusual for cats. Dietary preferences are not innate; they are acquired through social influences after birth.

Denise A. Elliott, BVSc (Hons), PhD, Dip ACVIM
N Amer Vet Conf Procd, Vol 22

Sedation in obstructed cats

Hyperkalemia is the most important electrolyte abnormality associated with complete urethral obstruction and may cause life-threatening arrhythmias. Exposure of hyperkalemic cats to anesthetic agents may cause further cardiovascular depression and even cardiac arrest. Serum potassium concentration should be corrected as soon as possible and arrhythmias treated before sedation/anesthesia. Physical restraint alone with topical anesthetics may be sufficient in docile or debilitated cats. Oxymorphone (0.05-0.1 mg/kg) or butorphanol (0.2-0.4 mg/kg) produce analgesia and mild sedation. An anticholinergic such as glycopyrrolate (0.01 mg/kg) should be administered to prevent vagally-mediated cardiac arrhythmias. Administration of ketamine in cats with renal failure is controversial. Low dose ketamine (1-3 mg/kg) and diazepam (0.1-0.3 mg/kg) can be administered to effect in cats, provided they do not have significant renal failure and that appropriate fluid therapy is established. Alpha-two agonists are best avoided because of their adverse cardiovascular effects. General anesthesia with an inhalational agent such as isoflurane or sevoflurane, with full respiratory and cardiovascular monitoring and support is probably the best approach in severely debilitated cats.

Alonso Guedes, DVM, MS, PhD, Dip ACVA
Tex A&M CVM Fel Med Sem Procd, 04:10

Lorazepam for litter box aggression

This author has had good success with lorazepam in these types of cases. This benzodiazepine does not have the same potential for causing hepatic necrosis that can be seen with diazepam. Typically begin with giving 1/4 of a 0.5-mg tablet, BID and increase the dose if there is insufficient response or decrease it if excessive sedation is seen. Mild to moderate sedation is common, and most cats adjust to these effects over a week or two, so hold the dose if these signs are, in fact, mild. If things go well, maintain the dose for 4-6 weeks, and then gradually decrease the dose over a three- to four-week period, going back to the previously effective dose if signs recur at a lower dose. Perform a baseline complete blood count and serum chemistry profile (including a total thyroxine concentration if the cat is near or over 10 years of age since aberrant behavior patterns can occur in hyperthyroid cats) before starting the lorazepam therapy. Repeat these tests 2-3 weeks later and then every 6 months while the cat is receiving the medication.

John Ciribassi, DVM, Dip ACVB
Vet Med, Jun 2012

Euthanasia as performed by this author

Reassure the client that the dose of barbiturate is painless. The author places kitty on a nice thick towel on the client's lap and tells them that cats generally keep their eyes open and that because muscles relax, the cat may empty his/her bladder or bowels. Also let them know that some cats may still make breathing movements as the body shuts down. While intravenous administration is the most common route for euthanasia, unless a cat is agonal, this author prefers to administer euthanasia solution intraperitoneally, just caudal to a kidney. This avoids restraint and the accompanying fear for the patient. Additionally, the transition from life to death is less sudden: it may take 2 minutes or 20 minutes. As soon as the cat is anaesthetized, should the client be wanting to "finish it," a vein can be accessed for an additional dose. In the author's experience, clients who have witnessed intravenous euthanasia prefer the more natural passing with the IP route. The time of waiting gives them a good opportunity to remember and cry and laugh. This helps one to know that they are working through their grieving normally and are going to be okay.

Margie Scherk, DVM, Dip ABVP
78th AAHA Conf Procd

Anesthesia tips

Don't rotate a patient without disconnecting the ET tube from the anesthesia breathing circuit. Both incidents may cause a tracheal tear, a common cause of liability claims. ***Ace myth:*** Acepromazine is often avoided in "seizure patients." Yet, There is no evidence to show that 'ace' increases the risk of seizures in epileptic patients or patients with other seizure disorders. Two excellent, yet often forgotten tips: Reapply eye ointment during the recovery period, especially when an anticholinergic was administered. Express the bladder to improve the patient's comfort.

R. Bednarski et al.
Vet Pract News, Jun 2012

Feline friendly tips

This clinician is a Gold Standard Certified Cat Friendly Practice. In the cat-dedicated examination room, is a Feliway diffuser (keep the doors closed between appointments) and a digital table-top scale (no reception room weigh-ins). A Comfort Zone towel warmer (Magna Wave HU; looks like a hard-sided suitcase; www.successmentorpat.ws/) to keep Feliway-spritzed infant receiving blankets warm. When a cat enters the examination room, it is placed on a warm,

Feliway-laden baby blanket (cats prefer a warmer ambient temperature). It is amazing how quiet, comfortable, and cooperative cats are when they are catered to in these small ways.

Robin Downing, DVM
Vet Med, Sep 2012

Feline nursing care guidelines

The American Association of Feline Practitioners and International Society of Feline Medicine recently released the new Feline-Friendly Nursing Care Guidelines. The intent of the guidelines is to provide veterinary teams with resources and recommendations to implement basic nursing care concepts with feline patients. The document defines nursing care as any interaction between a cat and veterinary team in a clinic, or between a cat and owner at home, that promotes wellness or recovery from illness or injury and addresses the patient's physical and emotional well-being. By looking at each section of the guidelines, a clinic can begin to understand fear and stress from the cat's perspective; make changes in protocol that will decrease stress in exam rooms, perioperative areas, and during hospitalization; avoid things that annoy cats; and counsel owners on how to behave in the exam room so as to soothe their cats rather than contribute to stress. These guidelines are available at www.catvets.com/guidelines.

JAVMA, Jun 15, 2012

Cardiac biomarkers

Plasma BNP concentrations are elevated in dogs and cats with congestive heart failure and those with asymptomatic heart disease. Several studies have shown plasma cBNP or NT-proBNP to be sensitive and specific tests for the diagnosis of heart failure in dogs and cats presenting with cough or dyspnea. The magnitude of NT-proBNP and BNP increase typically correlates with the severity of disease, which suggests its possible utility as an objective tool to predict clinical outcome. Many studies are investigating the best cutoff values between normal, mild, or moderate heart disease and severe heart disease with congestive heart failure. These cutoff values are quite different in the dog than in the cat. For example, the approximate cutoff values suggested by Idexx for NT-proBNP that strongly suggests congestive heart failure in the dog is >2700 pmol/L, as compared with >270 pmol/L in the cat. The author's personal opinion is that a NTproBNP concentration of ~1000 pmol/L in the cat is a better cut-off based on anecdotal experience. For the Antech assay, the current cut-off of congestive heart failure is 6 pg/ml although further clinical trials are still ongoing.

Terri DeFrancesco, DVM, Dip ACVIM
Music City Vet Conf Procd, 2012

Appetite stimulants for cats

* Maintain adequate hydration. * Potassium, 1/2 mEq/kg/day unless documented hyperkalemic. * Vitamin B-12, 3000-5000 µg/day, as needed and can act within 20 minutes of dosing; divide BID. * Acupuncture: tiny needle at mucocutaneous junction, middle of nasal planum; pinch tip of tail. * Cyproheptadine (4 mg tab) 1 mg, q8-12h, 20 minutes before meal offering; higher dose more likely to sedate than increase appetite. * Mirtazapine (15 mg tab) 3-4 mg , q72h. Less sedating; long-term use may increase risk of CV side effects or urine retention. * Dexamethasone, 0.05 mg/kg, PO or SQ at bedtime. * Megesterol acetate for non-mammary cancer patients, 5 mg daily, for 3-4 day, then EOD, 3-4 times then 2 times per week.

Hazel C. Carney, DVM, MS, Dip ABVP
WA St VMA Conf Procd, 05:08

Steroids as a last resort

Never let your patient die without the benefit of the silver bullet - (Steroids). Most of us tend to find this token bit of philosophy humorous or perhaps potentially dangerous. Although there are many diseases that can worsen as a result of repeated doses of glucocorticoid drugs, there are few (if any) that will progress to the patient's demise from one or two doses of this medication. This is not to imply that the indiscriminate use of glucocorticoid drugs is recommended; it is rather a reminder that animals can die of certain disorders such as nonseptic meningitis, autoimmune thrombocytopenia, IMHA, and acute adrenocortical insufficiency if they do not receive glucocorticoid treatment. Certain empirical therapeutic judgments have their places in medicine, especially when we are practicing under various economic, emotional, and diagnostic constraints.

Michael Schaer, DVM, Dip ACVIM
N Amer Vet Conf Procd, Vol 22

Hyperthermia in the seizure patient

Sustained seizure activity can result in dramatically elevated body temperature. Body temperature should be measured as soon after presentation as possible. Any patient presenting with a core body temperature >105°F should be actively cooled. Room temperature intravenous fluids, wetting the fur, and cooling with fans are recommended. Core body temperature should be rechecked frequently. Active cooling should be discontinued when the temperature drops to 103°F. The use of ice packs or ice baths is not recommended, as these can lead to peripheral vasoconstriction, decreasing heat loss through the skin. Hyperthermia can lead to many systemic sequelae, including DIC, hypoglycemia, acid-base disturbances, hypotension, and pulmonary edema.

Daniel J. Fletcher, PhD, DVM, Dip ACVECC
112th Penn Vet Conf Procd