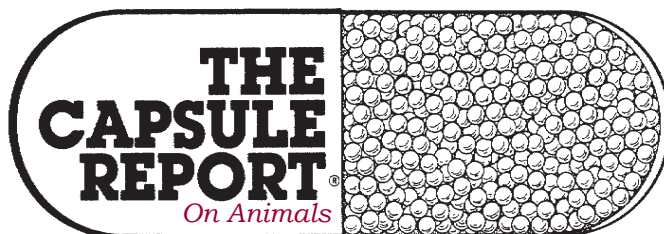


“Pearls”
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Diagnosing food allergy

From 15%-20% of dogs with cutaneous adverse food reaction have concurrent GI disease. Certainly, fewer atopic patients have concurrent GI disease. Manifestations may include weight loss, vomiting, diarrhea, borborygmus, or flatulence that are easily recognized by owner and veterinarian. Less obviously, increased frequency of stool is **strong supportive evidence for food allergy**. Ask the owner of an itchy dog, “how many bowel movements does Shotzie have in a day?” If the answer is 3 or 4, be suspicious. If the answer is 5 or more be extremely suspicious! At a minimum that dog needs a diet change and it might as well be to an appropriate elimination diet.

*John C. Angus, DVM, Dip ACVD
San Diego Co VMA Conf Procd, 09:12*

Wellness plan to increase visits

Wellness plans may be one solution to increasing veterinary visits, allowing pet owners to budget for preventive care. More than 44% of pet owners said veterinarians could increase patient visits if they provided wellness plans with monthly billing. Private practitioners have faced obstacles when designing their own wellness plans, including lack of professional marketing materials, secure credit-card storage, and monthly billing capabilities. A PurinaCare program, Partners in Wellness, lets veterinarians create tailored wellness plans without administrative constraints. Plans are branded to individual hospitals and include free brochures, website banner ads, and marketing materials to educate clients. Clients pay monthly for annual contracted wellness services, eliminating sticker shock. Through online setup, your hospital creates plans with specific services and products and sets monthly fees. Clients enroll online, avoiding paperwork at the clinic. Partners in Wellness interfaces with your practice-management software, allowing on-screen viewing of the plan that the client purchased, tracking delivered and owed services, and viewing the client’s payment status. Partners in Wellness automatically bills your clients monthly, deposits funds into your account, and manages the year-to-year renewal process. PurinaCare simply acts as a third-party

administrator. Visit www.partners-n-wellness.com/clinic for details.

*Wendy S. Myers
Nestlé Purina 2012 Symp Procd*

Medical marijuana for pets

This article documents several cases where medical marijuana seemed to alleviate pain in aging pets. Old or ailing pets who take cannabis usually experience an immediate boost in appetite and relief from pain. Marijuana is marketed as a liquid extract that can be spread on cheese or bread. One such source can be found at www.companioncannabis.com.

Bakersfield Cal, Jun 8, 2013

Fecal transplants

Although this article concerns human medicine, could it be applied to veterinary medicine? This physician, a gastroenterologist, found some of his patients being treated with antibiotics for infection with *Clostridium difficile* were not responding. Despite different treatments, diarrhea and cramping continued. Going back in history, more than 1,700 years ago, this physician discovered a treatment used for such conditions. The treatment? Fecal transplant. One patient, who suffered from diarrhea and cramping, improved within two days with normal bowel movements and no cramps. Some 150 patients have been treated with fecal transplants and 90% have shown a cure on the first try and achieved complete success with a second transplant. In early cases, a slurry of fecal material is introduced into the intestine via a colonoscopy. Overall, 500 cases have been documented and fecal transplants have cured 90%, a far better rate than standard antibiotic treatment.

*Dr. Alexander Khoruts
MN Alumni Ass’n Mag, Summer 2013*

Over-diagnosing hypothyroidism

Measurement of serum TSH concentration is recommended to differentiate dogs with euthyroid sick syndrome

INSIDE THIS ISSUE

- Allergic cat; P 3
- Analgesia, methadone; P 3
- Arterial thromboembolism; P 2
- Cervical disk disease; P 4
- Chitosan, to reduce phosphorus; P 2
- Constipation, cat; P 3
- Cystic ovaries; P 4
- Fecal transplants; P 1
- Feline environmental guidelines; P 3
- Fluid guidelines; P 3
- Food allergy, diagnosing; P 1
- Hypothyroidism, over-diagnosing; P 1
- Marijuana for pets; P 1
- Marijuana toxicity; P 4
- Presurgery hand asepsis; P 2
- Seizures, huperzine; P 4
- Wellness plans; P 1

The Capsule Report.

from those with true hypothyroidism. Most, but not all, hypothyroid dogs have serum TSH concentrations above the reference range, whereas most dogs with euthyroid sick syndrome have normal to decreased TSH concentrations. Despite these well-established test recommendations, this study suggests that hypothyroidism is diagnosed in many sighthounds based on low serum thyroid hormone concentrations alone or despite concurrent inconsistent thyroid function test results. Although the study's authors did not extrapolate their findings to other breeds, anecdotally, this over-diagnosis of hypothyroidism is, unfortunately, not specific to sighthounds. The authors' finding that hypothyroidism was presumptively diagnosed in 7.5% of sighthounds without abnormal serum thyroid hormone concentrations and thyroid hormone supplementation was administered is concerning. Characteristic clinical signs such as weight gain, decreased activity, and alopecia are an indication for thyroid axis testing; however, these clinical signs are not pathognomonic of hypothyroidism, and an alternative diagnosis should be considered when the serum T_4 concentration is within the reference range. If serum T_4 concentrations are decreased, the serum TSH concentration should be measured before making a clinical diagnosis.

R.E. Shiel et al.
Vet Med, 106:1

Presurgery hand asepsis

Surgical site infections are the most common source of nosocomial infections. The use of gloves decreases this risk, but glove perforation is common. Surgeons' hands contain high numbers of pathogens because of increased contact with infected wounds as well as overly aggressive presurgical scrubbing practices that render the skin harder to disinfect. Over the past decade, alcohol-based hand solutions (AHS) have become the standard in human surgery because they are efficacious, rapid, and gentler even with repeated use. The World Health Organization currently recommends AHS for surgical hand preparation. The majority of veterinarians still use chlorhexidine gluconate (CHX). CHX is bactericidal against a variety of gram-negative and gram-positive organisms and has a moderate residual effect but has no sporicidal activity and methicillin-resistant *Staphylococcus aureus* and Enterococci may be resistant to it. AHS rubs require shorter contact times (1.5-3 min) and are easy to use and gentler on hands, improving compliance by surgical staff. Nearly 20% of respondents in a survey used a medicated soap scrub followed by an AHS rub, which is discouraged because this decreases decontamination effects. Veterinary surgeons are recommended to adopt the less aggressive, more efficient AHS rubs

for presurgical hand asepsis by current international regulatory standards.

D. Verwilghen et al.
NAVC Clin Brf, 9:10

Arterial thromboembolism

Historically, treatment was directed toward removal or lysis of a clot. This is no longer recommended due to high mortality associated with rapid clot removal that is likely a result of reperfusion injury and hyperkalemia among other factors. Now, treatment is directed towards *pain relief*, which might include butorphanol (+/- acepromazine as tranquilizer) and an epidural (requires skill in local anesthesia) or a fentanyl patch (does not provide immediate relief). The prognosis is frequently poor, but approximately 35%-40% of patients regain use of their limbs. Although many cats will regain use of motor function within 1-2 weeks, risk of a second episode is high. Many owners elect euthanasia due to the patient's discomfort and concurrent heart disease. The best method of prevention is not known, but one could consider a platelet inhibitor such as clopidogrel (Plavix), 18.75 mg/cat, q24h (more potent than aspirin). For cats that have had one episode, many suggest adding a low-molecular-weight heparin. A less expensive but likely weaker option would be aspirin (81 mg every 72 hours). There is no clear evidence yet that clopidogrel is any more effective than aspirin. Generally, some type of anticoagulant preventive therapy is recommended **for all cats with atrial enlargement and any form of cardiomyopathy.**

Kathryn Meurs, DVM, Dip ACVIM
80th AAHA Conf Procd, 2013

Use of chitosan to reduce phosphorus

Epakitin (Vétoquinol) is marketed as a complementary feed on the veterinary market. It contains the adsorbent chitosan (8% crab and shrimp shell extract), 10% calcium carbonate, and 82% lactose and is designed to reduce GI phosphorus absorption and to lower urea nitrogen due to effects of reduced protein digestibility. One short-term study of a small number of normal and chronic kidney disease (CKD) cats showed a reduction in protein and phosphorus digestibility along with the decreases in BUN and serum phosphorus in cats eating a normal maintenance diet supplemented with the chitosan and calcium carbonate product. Another longer-term study showed the ability of a chitosan and calcium carbonate intestinal phosphate binder to significantly decrease serum phosphorus and plasma parathyroid hormone levels when added to a maintenance diet for cats with CKD. The results of these two studies suggest that this supplement could be an alternative to prescription of renal veterinary diets thereby **allowing some cats to continue on their regular diets** while still reducing the risks for progression of CKD associated with total body phosphorus burden. The author has, however, observed the development of hypercalcemia in a few CKD cats with the use of this product, probably as a consequence of the calcium carbonate.

Dennis J. Chew, DVM, Dip ACVIM
72nd CO St U CVM Conf Procd

Investigating the allergic cat

The demonstration of adult fleas and/or flea dirt with combing is very helpful, but the flea-allergic cat may have little or no direct evidence of fleas. This is because hypersensitive patients may require only a few bites to incite the reaction, and the excessive grooming and scratching of the pruritic cat may effectively remove the fleas. Response to a trial of excellent flea control is commonly used to rule out flea allergy. Advantage (imidacloprid) once every two weeks is recommended, as it is approved to be used more often than once a month. Comfortis (spinosad) is now approved for cats and is an excellent monthly flea treatment that begins killing adult fleas in a short period of time (30 minutes). Be sure that all in-contact animals are on flea control, and monitor with a flea comb by the clients to provide continuity of care. The combination of antibiotic, E-collar, and flea control is an excellent first step in: (1) eliminating a pyoderma from the list; (2) eliminating flea allergy dermatitis from the list; and (3) allowing skin to begin to heal and fur to regrow. Response to trial miticidal therapy may also be useful (i.e., Advantage Multi every 2 weeks for a month or lime sulfur weekly). Because *Demodex gatoi* may not necessarily be discovered in superficial scrapes, trial lime sulfur dips can be both diagnostic and therapeutic.

*Patricia White, DVM, MS, Dip ACVD
80th AAHA Conf Procd, 2013*

Feline environmental guidelines

Although cats are beloved family members to most people, we inadvertently do not provide for cats' needs because of a lack of understanding of these needs, which differ vastly from our own. Meeting the environmental needs of cats is not optional, but rather essential to the physical and emotional health of our feline patients. Thus, new environmental guidelines from AAFP and ISFM have been published. These guideline can be downloaded at: www.catvets.com/guidelines/practice-guidelines/environmental-needs-guidelines. The guidelines address the benefits to meeting cats' environmental needs and understanding cats and their species-specific needs. It also addresses the five pillars of a healthy feline environment. It is essential to meet cats' needs and allow them to express their natural behaviors, to prevent stress and undesirable behavior, and to improve feline health and welfare. The recommendations in the guidelines apply to all pet cats, regardless of lifestyle (indoor vs. indoor/outdoor) and location (home, veterinary practice, or shelter). This veterinary practitioner, finds these guidelines to be the support that many of us practitioners need to help prevent and even resolve many behavior problems. Incorporating these guidelines into your practice and client education can help prevent or reduce behavior problems and stress-associated illness and enhance the relationship that cat lovers have with their cats and with your practice.

*Ilona Rodan, DVM, Dip ABVP
Vet Med, Jun 2013*

Managing constipation in the cat

Dietary management is an important long term management tool in cats with constipation or obstipation; however, there are some important caveats to dietary therapy that must be understood. Increasing fecal bulk with dietary fiber of moderate or poor fermentability stimulates the defecation reflex and shortens transit time. The end result is a bulkier stool that passes more frequently *if* the cat is hydrated normally. There are many diets containing insoluble fibers (Hill's w/d, Purina OM, Royal Canin Hifactor) that are designed for this purpose and in animals with normal hydration and a functional colon, these diets can work well in preventing further episodes. However, in many cats (that tend to have too dry feces because of marginal dehydration) **these diets will make the problem worse**, as a dry stool that gets bulkier will only be harder to pass. In situations where the cat on these diets is producing very dry, large or hard feces, either the cat must consume more water for the diet to be safe and effective to use, or you must stop that diet and consider other approaches or constipation will occur simply as a result of fecal dryness. One approach is to use a diet that is highly digestible (low fiber) (e.g. Hills i/d, Purina EN, Iams low residue) and then add a laxative (lactulose or MiraLAX), colonic prokinetic, or other drug to alter colonic motility as needed. In all cats with severe colonic muscle failure (obstipation or megacolon), **high fiber diets should be avoided completely**, and only diets that result in the minimal amount of feces should be used.

*Debra Zoran, DVM, PhD, Dip ACVIM
80th AAHA Conf Procd, 2013*

New fluid guidelines

The American Animal Hospital Association and the American Association of Feline Practitioners have released the new AAHA/AAFP Fluid Therapy Guidelines for Dogs and Cats. The hope is that barriers have been removed for veterinarians who currently are not embracing fluid therapy to do so now. The document covers general principles and patient assessment, maintenance and replacement fluid therapy, fluid administration during anesthesia, fluid therapy in the sick patient, changes in fluid volume, changes in fluid content, changes in fluid distribution, and equipment and staffing. The guidelines are available at www.aahanet.org/Library/Guidelines.aspx.

JAVMA, Jun 15, 2013

Methadone as an analgesic

Methadone has traditionally been used in humans to treat opiate addiction but has also been used for pain. Pain that is poorly controlled with other opioids (e.g., morphine, hydromorphone, and fentanyl), such as chronic and neuropathic pain, may be controlled more effectively with methadone. Although oral formulations

of methadone are inexpensive and readily available, oral bioavailability is low, and detectable plasma concentrations are not achieved in dogs dosed orally. Methadone appears to be well tolerated following IV administration, except for minor sedation. Minimal cardiovascular effects have been observed in healthy dogs after clinically relevant methadone dosages, but increased systemic vascular resistance and coronary vascular resistance have been documented. Therefore, methadone should be used cautiously in animals prone to congestive heart failure, with underlying cardiac disease, or with hypertension. The recommended dose of methadone for dogs is 0.5 mg/kg, IV, q6h or 0.5-1 mg/kg, q6-8h, IV, IM, SQ. In cats, methadone (0.6 mg/kg, IM; 0.3 mg/kg, IV) has been well tolerated when administered as a preanesthetic and was effective for postoperative pain at a dose of 0.5-0.6 mg/kg. Although repeated doses were not evaluated, a suggested dose interval is q6-8h in cats. At a dose of 0.2 mg/kg, SQ to healthy cats, no adverse effects were observed, euphoria was exhibited, and methadone was as effective against nociceptive stimuli as morphine. It has also been **effective after oral transmucosal administration** in cats at a dose of 0.6 mg/kg.

*Mark G. Papich, DVM, MS, Dip ACVCP
35th Royal Canin/OSU Symp Procd*

Cystic ovaries

Cystic ovaries are primarily demonstrated by prolonged proestrus and/or estrus. Signs of both occurring repeatedly multiple times during the same estrus are possible; it may be called a split heat or cystic ovarian disease but it is the same condition. Based upon information available in other species, the prolongation of a mature oocyte within the follicle reduces the probability the oocyte will be fertile and that ovulation will be normal. For this reason and because this condition can persist for 6-8 weeks if untreated, the author prefers to treat accordingly with human chorionic gonadotropin as soon as possible and not breed the bitch. The success of this therapy is extremely high with over 90% of the animals responding to a single treatment. The bitches cease the proestrus or estrus within 5-10 days. Recommended dosage is 500-1000 units, IM. GnRH has also been used at a dosage of 50 µg, IM. Since the proestrus and estrus were prolonged, it is advisable to always examine these animals at 25-35 days following treatment for the possible development of pyometra. The treatment does not cause the pyometra, the prolonged exposure to the estrogen predisposes to the condition.

*Walter R. Threlfall, DVM, MS, PhD, Dip ACT
New Eng Reg Vet Conf Procd, 9:11*

Marijuana toxicity

Decontamination should be considered for patients who have ingested a large amount of THC containing product. If the ingestion was recent and the patient is not showing clinical signs, emesis could be attempted; however, if the patient is showing signs of mental obtundation emesis should be avoided. Activated charcoal with

cathartics will help prevent absorption of THC from the intestinal tract. Since THC has significant enterohepatic recirculation, charcoal doses should be repeated every 4-6 hours. If there is concern for hypernatremia associated with repeated doses of charcoal, repeated doses of cholestyramine may be considered. If patients are too stuporous for activated charcoal to be safely administered, orogastric lavage may be considered. Since THC is highly lipophilic, and one pathway of drug clearance is redistribution into fat, it is reasonable to **consider using intravenous lipid emulsion** (i.e. Intralipid) as an aid to decontamination.

*Tania D. Hunt, DVM, MPVM
So Cal VMA Pulse, Jun 2013*

Cervical disk disease

Dogs can be managed conservatively with strict cage rest for 4 weeks combined with pain relief using anti-inflammatory drugs, opiates, and/or muscle relaxants. Judicious use of anti-inflammatory doses of corticosteroids combined with appropriate cage confinement can be attempted if the pain is not responsive to nonsteroidal anti-inflammatory drugs. Muscle spasm can also be responsive to gentle massage and hot packing of the neck. Administration of an H2 blocker such as famotidine may help to prevent the development of gastric ulceration. The aim of cage rest is to allow defects in the annulus fibrosus to heal, and resolution of pain **does not mean that confinement should be discontinued**. If this approach is successful, gradual reintroduction to controlled exercise can be attempted and the owners should be cautioned to prevent their pet from activities that involve jumping. Dogs should be monitored weekly and if the pain is unresponsive to conservative therapy, recurs, or neurological deficits develop, surgery should be recommended.

*Simon Platt, BVM&S, MRCVS, Dip ACVIM
80th AAHA Conf Procd, 2013*

Huperzine, for seizures and behavior

This author has found that huperzine is a useful addition to one's pharmacological armamentarium. The drug is available over-the-counter at most health product stores in capsule form. Capsules range from 50-200 µg in strength. The author has found the huperzine useful in treating seizures at a dosage of between 50 and 400 µg, BID. Huperzine was found to be quite safe. This herb was also found to be effective for a variety of behavioral disorders, ranging from canine compulsive disorder (alone or as an augmentation therapy) to canine cognitive dysfunction.

*Nicholas Dodman, BVMS, Dip ACVB
Vet Pract News, Jun 2013*