BULLYING IN THE VETERINARY WORKPLACE

DOMESTIC VIOLENCE AND COVID-19
ILIOPSOAS INJURIES IN DOGS
OTITIS IN YOUNG ANIMALS
ORAL EXAMINATION OF THE PEDIATRIC AND JUVENILE PATIENT
LESSONS FROM THE TIGER KING
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By the time you read this summer message, the world may look a little like it did, a little like it became over the spring, or a little like a new reality. As different as life and work have become, there is, for me, some small comfort in knowing that we are all in the same situation. We are all connected in our desire to keep animals healthy and address animal welfare issues.

But this message is not about animals; it is about humans. It’s about the individual veterinarians who contacted the Chapter expressing fear about the virus; concern over their employees’ health and their employees’ incomes; and genuine commitment to continuing to provide service to patients and clients. I was able to speak to so many of you to hear your fears, which were overcome by your desire to treat animals.

I’ve always been a fan of veterinarians, but watching you all alter your practices to continue to see animals, to develop safety protocols and distancing measures, and to continue to show up at work each and every day to do your jobs served to augment my already immense respect and gratitude.

I heard about this from many of you, and I got to see it myself more than once as my own dogs visited their veterinarian. I was impressed by the handling of some of my dogs as they went inside without their mommy for treatment, and I appreciated how informed I was kept each step of the way. I was so very proud of how the clinic staff and techs suddenly became mobile veterinary service providers, running animals to and from cars, delivering medicines in bags, and handling animals with such care and affection—things I would not have seen if I was sitting inside an examining room.

I watched my own veterinarian when one of my dogs, who cannot be handled by other people, became sick. Without missing a beat, my veterinarian made my car the examination room, with all of us sanitized, gloved, and masked. The veterinarian was in my car examining Ella, and the tech stood outside the car taking notes, recording vitals, and holding a soiled thermometer—all as if this was just another day. It doesn’t sound like much, but to me, a worried mom of a sick, scared dog, it meant everything.

And that’s why I get so frustrated at times, reading about the incredible work and recognition going to front-line health care workers, grocery clerks, gas station attendants, truckers delivering food and supplies, those government workers processing economic supports, and the clever teachers and business leaders finding ways to shoot videos so training and leadership continue on. I agree with all this recognition of course, but there is a void in recognizing the amazing, selfless, and important work being done daily, hourly, and sometimes even by the minute, by this province’s veterinarians and practice staff. Every single day, you each deserve recognition, thanks, and applause, along with hugging pets, snazers, and even some hugging and meowing in appreciation. You may not get what you deserve, but I want you all to know, WE SEE YOU. We see exactly how deep your commitment, and how vast your knowledge, and how all-encompassing your commitment is to animal health and welfare.

Every day I see you all, and I say thank you.

Email: wcveditor@gmail.com

TO THE EDITOR

Letters from members are welcome. They may be edited for length and clarity. Email us at wcveditor@gmail.com.

ON THE COVER

Photo from page 29, courtesy of Angelica Bebel, DVM, Dipl. AVDC

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Email: wcveditor@gmail.com
JANGI BAJWA, BVSc & AH, Dipl. AVDC, is a board-certified veterinary dermatologist with the American College of Veterinary Dermatology. He works at the Veterinary Dermatology and Ear Referral Medical Clinic in Surrey, BC. He is also a consultant with the Veterinary Information Network and is a dermatology feature editor for the Canadian Veterinary Journal. His dermatology interests include skin and its treatment, microbial resistance, canine and feline allergic disease, and continuing education of veterinary professionals and pet owners.

ANGELICA BEBEL, DVM, Dipl. AVDC, began her veterinary career as a Registered Animal Health Technician. In 2014, she graduated from the Western Veterinary College in 2014 and has continued working locally at West Coast Veterinary Services. She received her diploma status in the American Veterinary Dental College in 2018 and has continued working locally at West Coast Veterinary Dental Services.

EMILIA GORDON, DVM, is the senior manager of animal health for the BCRPCA, providing animal health support, training, and oversight to all shelter branches province wide. Her areas of focus include infectious disease prevention and management, facility housing design, and nutrition. Dr. Gordon also works with veterinary students, participates in community partnerships and outreach, conducts shelter medicine research, and volunteers on the Chapter Animal Welfare Committee.

VERONICA GVENTSADZE, MA, PhD, DVM, graduated from the Ontario Veterinary College in 2008. She moved to Squamish, BC, where she worked for two years as an associate veterinarian in a small animal practice. She currently travels across BC as a locum and enjoys learning something new from each practice.

ELAINE KLEMMENSEN, DVM, was once the keen interest of a camel and learned she can outrun an ostrich when her life depends on it. After graduating from WVCM in 1991, Dr. Klemmensen’s adventures in veterinary medicine have included associate, practice owner, locum, and volunteer with seven organizations in seven different countries. She is passionate about people as well as pets and is studying leadership at Royal Roads University to learn how to help veterinarians and their teams thrive. Her adventures these days are mostly from the seat of a bicycle, but she dreams of riding the Silk Road one day. On a bicycle … not a camel.

DAVID LANE, DVM, Dipl. ACVSMR, operates Points East West Veterinary Services, a sports medicine and rehabilitation medicine specialty practice in Squamish, BC. His caseload includes the diagnosis and treatment of lameness conditions in both working and pet dogs. Approximately one-third of his practice is devoted to the palliative treatment of geriatric animals for chronic pain conditions such as arthritis. His research interests include the use of regenerative medicine in tendon and ligament repair, and the link between lower back pain and urinary incontinence.

LOUISE LATHLEY, BLES, completed her bachelor of law enforcement at the Justice Institute of British Columbia and uses her knowledge of the law in her work at the BCRPCA. Her passion for animals has led to cross-sector collaboration on helping vulnerable people and pets. Her graduate research in criminal justice at the University of the Fraser Valley explores the rationale behind animal cruelty and pinpoints how it relates to other types of crime.

DANIEL M. WEARY, DPhil, is a professor at the University of the Fraser Valley. He was recently awarded UBC’s Killam Research Prize. He explores the rationale behind animal cruelty and pinpoints how it relates to other types of crime. His dermatology interests include otitis and its treatment, microbial resistance, and urinary incontinence.

JANGI BAJWA, BVSc & AH, Dipl. AVDC, is a board-certified veterinary dermatologist with the American College of Veterinary Dermatology. He works at the Veterinary Dermatology and Ear Referral Medical Clinic in Surrey, BC. He is also a consultant with the Veterinary Information Network and is a dermatology feature editor for the Canadian Veterinary Journal. His dermatology interests include skin and its treatment, microbial resistance, canine and feline allergic disease, and continuing education of veterinary professionals and pet owners.
The music of the 1980s and 1990s changed but still included incredible Carlos Santana and his band. Of course we were introduced to the sound full and strong. I was introduced to the rock and roll music on a turntable or reel-to-reel tape machine close to my workspace. At university I listened to Chicago, with their horn section making the sound full and strong. I was introduced to the incredible Carlos Santana and his band. Of course we can’t forget the amazing dual lead guitarists of Duane Allman and Dickey Betts of the Allman Brothers Band. The music of the 1980s and 1990s changed but still contained some amazing tunes. I could go on and on, but I won’t bore you. I am sharing this with you because I feel it is important at times of stress and fear that we reach for memories and activities that can soothe our injured souls. Our jobs are emotionally draining at the best of times, and the abrupt changes we have had to make in how and where we practice add extra pressure. We all need to reach out for our own ways of coping. Music helps me. Listening to Eric Clapton’s song “Tears In Heaven” with the pedal steel guitar of Duane Allman alongside of Carlos Santana can always make me smile. I know many of you may not have a clue who I have been talking about, but I’m sure you can find the rhythms that will help you.

Other than my wife and family, my other stabilizer is sport. At university, I swam a lot, walking down the road at the University of Saskatchewan to the pool in the education building to swim half a mile at lunch as many days as I could. I was also involved with the intramural programs at the U. of S., playing soccer, basketball, volleyball, table tennis, hockey (though being a west coaster, I was dismal at skating compared to the prairie players). Sports took me away from the confines of WCV to take my mind off learning and blow off some steam. Now I’ve found another way to benefit from sports by coaching youth soccer two nights and most of a Saturday each week throughout the winter. I enjoy working with the two other coaches and the teenage boys.

So what about you? What have you been able to find that can take you physically and mentally away from the clinic, farm, stable, or lab? There are so many opportunities to play music or sing in choirs, or to be artistic with painting, pottery, sculpture, knitting, etc. Yoga and tai chi can be very good activities as well. Don’t forget about trying different cooking or baking methods of course we have to watch the baking, as we may need to increase our daily dog walking time). Playing games with our kids can bring us back to reality very quickly as well. Video games may be a passion to try. There is so much out there that can help us relax and forget our worries for a while!

I want to leave you with some words from another famous (at least for us gestic folks) R.E.M. song released in 1992 called “Everybody Hurts.”

When the day is long
And the night is yours alone
When you’re sure you’ve had enough of this life
Well hang on

Don’t let yourself go
Cause everybody cries
And everybody hurts
Sometimes
Take comfort in your friends, everybody hurts
If you feel like you’re alone
No, no, you’re not alone!

If you are trouble, please reach out for help. It can be hard, but there is lots of help through friends, colleagues, relatives, and of course Homewood Health offers free consultation to direct you to expertise that can help. You are not alone! You are loved and appreciated.

PS: I must thank Corey and Adriana at our SBCV office for their tireless work to keep us all informed through the COVID-19 crisis. We are fortunate to have such dedicated people working for us. Also, Dr. Chriatiane Armstrong has worked tirelessly, attending conference calls, reviewing emails and blog posts to send to the office and the Board to make sure you are getting the best and most up-to-date information possible. We all owe Christiane our thanks.

Playlist of some of my favourite music:

• R.E.M.’s “Automatic for the People”
• Santana’s “Soul Sacrifice” from the 1970s
• Supernatural, and the Allman Brothers Band “Fillmore East”, recorded in 1971. Terrible if you like longer jamming-style music.

• Anything by Melissa Etheridge!

A s your CVMA president, it’s my pleasure to provide you with updates on some of the CVMA’s initiatives. We want you to know that the CVMA stands in solidarity with all CVMA members, veterinary professionals, human healthcare workers, and all Canadians during this difficult time.

WE’RE WITH YOU EVERY STEP OF THE WAY

We have entered an unprecedented time in our country’s history due to various threats posed by COVID-19. The CVMA wants to reassure members that their national association, in coordination with provincial veterinary medical associations and regulatory bodies, is in continuous contact with federal agencies to bring veterinarians the most current information to protect their clients, teams, and families. Please visit the CVMA’s dedicated COVID-19 web page at canadianveterinarians.net/coronavirus-covid-19 for up-to-date information and resources, including the recorded webinars discussed below.

IT’S TIME TO APPLAUD THE COUNTRY’S VOLUNTEERS

Every April, National Volunteer Week honours the veterinary professionals who donate their time and expertise to various CVMA projects supporting Canada’s veterinary profession. An article posted in the CVMA’s newsletter, The Veterinarian, and the April issue of the Canadian Veterinary Journal highlighted volunteers’ contributions and discussed ways to get involved. I would also like to give special thanks to some of the volunteers who stepped up during this pandemic and made invaluable contributions to our profession.

A big, heartfelt thank-you to the CVMA’s COVID-19 Working Group:

• Dr. Christiane Armstrong, CVMA National Issues Committee council liaison
• Dr. Marc Cartet, registrar and CEO of the Saskatchewan Veterinary Medical Association
• Dr. Serge Chalboub, CVMA National Issues Committee member
• Dr. Douglas Jack, partner at Borden Ladner Gervais
• Dr. Frank Richardson, registrar of the Nova Scotia Veterinary Medical Association
• Dr. Ian Sandler, CVMA National Issues Committee Member

Dr. Ian Sandler moderated a webinar titled “Navigating the Financial Implications of the COVID-19 Crisis on Veterinary Medicine in Canada,” with presentations from Dr. John Tait and Mr. Dave Legault. This webinar was designed to aid veterinarians with various issues relating to the COVID-19 pandemic, including tax and human resources concerns, personal portfolio management, new norms for business valuation and transactions, the nature of supply-based recessions, and operational tips on the value of discounts now and approaching recovery.

Mr. Douglas Jack facilitated a question and answer session after the webinar titled “COVID-19 Legal Perspectives: Workplace Issues,” presented by his law firm, BLG. The webinar explored topics such as temporary layoffs, constructive dismissal claims, work refusals for unsafe work, changes to employment insurance, and new statutory leave for quarantine.

Dr. Serge Chalboub led a webinar on veterinary telemedicine, including a question and answer session on what it is and what you can do to get started.

Dr. Kathy Keil, member of the AVMA and CVMA Member Wellness Committee and a technical services veterinarian with Merck Animal Health, led a mental health webinar titled “Staying Psychologically Safe in the Face of COVID-19,” informing veterinarians about community and social resources for their psychological safety, practising evidence-based mindfulness techniques, and how to be together with kindness for ourselves and each other.

Please protect your own health and practise the COVID-19 prevention and containment directives as per the Public Health Agency of Canada.
DR. SCHERK RESPONDS

In response to Dr. Wilson’s letter, I reached out to Dr. Michael Lappin as he is not only the chair of the American Association of Feline Practitioners (AAFP) Zoonoses Guidelines Committee but the best person to respond, but he is also still doing research on toxoplasmosis specifically, and of course also many other infectious diseases of cats. Additionally, he is the chair of the World Small Animal Veterinary Association One Health Committee. Here is his response:

Thank you for reaching out concerning Toxoplasma gondii oocyst shedding in previously infected cats. We addressed that briefly in the updated AAFP Zoonoses Guidelines on page 1511, column one, first paragraph. We only provided the one reference to save space, but I think the statement is accurate. The most recent reference 32 is a good example paper. The gut immunity against T. gondii is not permanent or sterilizing and so repeat shedding is possible, but when it occurs, fewer oocysts (or none) are generally shed than with the primary infection. We also failed to induce repeat oocyst shedding in cats treated with cyclosporine as discussed in reference 32. I believe the body of work to date supports that the cat with primary infection is the most likely to contaminate the environment, but secondary infections may also play a role. However, there is limited information on whether continued exposure results in repeated shedding each time. Thankfully, since Toxoplasmosis requires a sporulation period, T. gondii infections from ingestion of sporulated oocysts appear to be acquired more commonly from the environment than from touching cats. Thus, waste filtration, washing/cleaning of produce, and hand washing after gardening should lessen the risk of infection to people. Whether housing cats indoors lessens the overall risk of T. gondii infection in people is debatable for a number of reasons. For example, transport or intermediate hosts can come into the home. In addition, while we may be successful in having some cats housed indoors, there will always be some feral cats, and the life cycle can also be completed by other cat species. In addition, ingestion of the oocysts in undercooked meat products still accounts for many infections of people.

From my own perspective, I would also like to add a few thoughts. As Dr. Lappin states, the risks are minimal for becoming infected with T. gondii if cats are healthy, being dewormed, and being administered flea and tick control, risks from any zoonotic agent are minimal. But the vast, vast majority of people remain safe.

Toxoplasmosis has always scared people. For those affected by it, it is horrific. Early in both of my pregnancies I was tested and was disappointed that despite working with cats and being a veterinarian, I remained negative. Protective immunity would have been welcome. We are justifiedly hyperaware in the era of SARS-CoV-2, but need to remain vigilant and keep risks in perspective to avoid causing panic.

In response to Dr. Wilson’s letter, I reached out to Dr. Michael Lappin as he is not only the chair of the AAFP Zoonoses Guidelines Committee. Here is his response:

Dr. Scherk –

You are right that the risk of T. gondii to humans is minimal if the cat is happy to be kept indoors. Some cats cannot stay indoors due to stress-related medical reasons. In my perfect world, all cats would be kept indoors, but not all cats fit into my perfect world. The default should be leaping cats indoors. Only cats from infected households or where their owners are self-isolating, and only if the cat is happy to be kept indoors. Some cats cannot stay indoors due to stress-related medical reasons. Further, on the same day, International Cat Care put out a strong statement to underscore that all cats should not be kept indoors due to the stress associated with indoor confinement. Some outdoor cats can adapt, but not all. They’ve haven’t been domesticated to live in such an environment. We can find a “best-of-both-worlds” situation for some cats by providing ratios, but not everyone is able to do that and that may not be sufficient for many cats. As to teaching people to invest the time and provide a species-appropriate environment indoors... we can’t, we even can’t understand what 2020 meant to animals.

In 2016, the AAFP published a position statement titled “Impact of Lifestyle Choices on the Companion Cat—Indoors vs. Outdoors” about which Dr. Scott Weese wrote: “It’s a complex situation and I know I’ll get strongly opinionated comments in this response to that point. In my perfect world, all cats would be indoors, but not all cats fit into my perfect world. So, I think the default should be keeping cats indoors whenever possible, both for their health and the health of their families. That’s particularly important when the people or cats are at increased risk of disease. But some cats won’t do well inside 24/7 and some allowances can be made for them as well, in the right situations. The indoor/outdoor decisions need to be made based on a large number of factors and there’s no single approach that works for all cats, households and regions.” At that time, he had three cats, only one of whom was strictly indoors.

Ultimately it comes down to what Dr. Scott Weese tells us repeatedly: “Wash your hands. Don’t eat poop.”

Margie Scherk, DVM, Dipl. AAFP (Feline)

DEAR EDITOR,

I was glad to see Dr. Scherk’s article on feline zoonoses, which effectively provided many rational approaches for minimizing risk. It is important to mention, however, that new research demonstrates that cats will shed Toxoplasma gondii more often than once in their lifetime. As Dr. Scherk pointed out, the risk of T. gondii exposure does not come from simple cat ownership; it comes from environments in which cats have access to infected food. However, a critical point is that free-ranging cats significantly contribute to this contamination. Dr. Scherk mentioned preventing housing, but this is not possible if cats (or dogs) are roaming unsupervised. Animals that live in feral colonies typically have higher parasite loads, and the most effective way that owners can reduce their risk and the risk to those around them is to restrict unsupervised access. Free-ranging cats pose the greatest risk not to owners, but to people who are unknowingly exposed in public areas such as playground sandboxes, community gardens, or private backyards. Veterinarians can refer to the primary scientific literature to obtain field data.

The current pandemic has demonstrated that the public expects individuals to be socially responsible and to do their part by not exposing fellow community members to infectious disease. T. gondii infections are thought to be lifelong, and although most infections remain latent, immunocompromised people, or children infected in utero can be severely impacted. Therefore, it is essential to be proactive and to limit unnecessary exposure from free-ranging pets. Everyone benefits from veterinary guidance on responsible, health-conscious owners that make feline enrichment needs without defaulting to free roaming. Progressive alternatives such as harness-trained cats going on hikes with their families and interest groups may encourage healthier cats and encourages owners to keep cats engaged. cat desirable.

Amy Wilson, DVM, Vancouver, BC
I could hear the thundering of hooves. The woman beside me had just whistled, a signal her herd of 15 or so horses must associate with feeding time because they responded readily. They came streaming down the hill, out of the trees to our right, funneling into the flatter, open section of the pasture that was probably many acres in total. Several of them bucked or kicked or nipped at each other, others slowed to graze the fall stubble, and a few approached the woman to see if she did indeed have food.

“That’s him,” she said, pointing at a horse on the outskirts of the group. He was rummaging under the edge of a log for whatever green stuff hadn’t been discovered there yet. He shied away from another horse when it came near. We approached him and he raised his head slightly, with a look of surprise and some curiosity.

“Is this the horse you’re selling?” I asked, gesturing to his scruffy appearance and several obvious bite marks.

“I mean can you fall and get up again without crying and not making a big deal of it?”

“I suppose anyone can fall,” said Shasta.

She sounded uninterested in this question, but in a way that always made me smile.

“I wish it weren’t due to the current situation, I am grateful for it just the same.”

“Did you know Shadow is getting older: 19 years old. He still acts like a horse, he still acts with horses, I was reminded that I had always wanted to be a veterinarian for a reason: to be a horse doctor. I wanted to help keep other people’s horses happy and healthy so they could have the kind of relationship I had with my horse. That kept me going through my two years of undergraduate work, and things never working out as expected, you can do anything you set your mind to. But of course that mind-set would be challenged beyond anything I could have imagined in actually surviving the veterinary program.

Shadow came to Saskatchewan with me for the first two years of my DVM, thanks to the help of my dad. Winter Saturdays at the barn, despite the average temperature being -30, we would have lots of sunshine (or Shadow, ha ha)." In what was otherwise a lot of dark days I learned to love my horse and appreciate the lessons he taught me.

It’s been a very challenging couple of months, for the world, for Canada, for students—everyone. The pandemic has scattered the students of WCVM back to their homes for the rest of term to finish our coursework online. Thanks to the university administration and our professors rapidly developing various remote delivery tactics, at least we are able to complete our degrees despite the stress of uncertainty and less-than-ideal circumstances. I am currently back on island time for a while. It’s a bit of stolen time really, with my family, our animals, and the place I grew up while everything is paused, and although I wish it weren’t due to the current situation, I am grateful for it just the same. I was in the barn last night, as I am every night and morning, like when I was growing up, with Shadow and his companion, Sam. Shadow is getting older: 19 already. There are grey hairs on his face and in his mane. He gets stiff when it’s damp, and he’s lost his devilish side and a good deal of the craziness he had when he was younger, but he still has big, intimidating brown eyes. He’s always happy to see me. And time and time again, although life has so many unexpected challenges, he makes me feel that everything is going to be okay.

Reina Gabriel Fennell, WCVM class of 2021, grew up on an acreage on Haida Gwaii surrounded by marine and forested wilderness, which started her on her journey of wanting to be a large animal veterinarian with a focus in equine medicine and surgery.
Otitis is a common disease presentation in small animal practice. Often, pet owners are unaware of their pets’ otitis until it is diagnosed during routine wellness examinations. This is especially true for early and acute cases. Otitis assessment is an important part of physical examination of pets in veterinary practice, and as with most other examination techniques, the best time to start ear assessments on a patient is while they are young. Otic assessment in pets includes various steps and may be undertaken throughout a patient visit, starting with distant observation of the ear pinna. The quality of the hair on the pinna and ear margins as well as evidence of head tilt, head shaking, and ear scratching can often be assessed during patient history collection. This is followed by palpation of the ear canals and closer visual inspection of the ear canal opening, pinna folds, and ear margins. During this part of the ear assessment, you may observe clinical signs associated with otitis, including erythema, scaling, crusting, alopecia, discomfort or pain on palpation of the auricular cartilage, otic discharge, and odour from the ear. Palpation of the ear canal or pinna may induce pruritus in some patients. Lesions may extend beyond the pinna and may include skin at the temples, head, and lateral or caudal aspect of the ear base. Otoscopic examination (see Figure 1) forms a vital part of ear examination. The health of deeper structures, including the vertical and horizontal ear canal, as well as the tympanic membrane, can be assessed with otoscopy. Pathological changes such as ear canal erythema, glaular hyperplasia, excessive otic cerumen, otic masses, otic foreign bodies, or stenosis of the ear canal may be evident. Increased opacity of the tympanic membrane or evidence of a ruptured tympanum may also be noted using otoscopy. If unilateral otitis is suspected, the unaffected ear is generally assessed first to help establish baselines for the diseased ear, as well as to help with patient compliance by handling the non-sensitive ear first. Making otoscopic examinations a part of all routine pet evaluations can help the clinician become comfortable with normal structures of the ear. New veterinary graduates as well as experienced veterinarians are encouraged to take every opportunity to assess healthy ear canals in patients anesthetized for non-dermatological reasons as well as pets presented for routine health evaluation. A brief overview of basic ear anatomy, the ear is made of the pinna (auricle), external ear canal (auditory canal), middle ear, and inner ear. Pinna cartilage is breed specific in dogs, but the pinna is generally upright in cats. Based on the breed, few to numerous hairs may be present at the external ear canal opening as well as along the canal. The external ear canal of cats is devoid of hair. The ear canal itself consists of an initial vertical canal that runs ventrally and slightly rostrally, joining into the shorter horizontal canal that runs medially until it meets the tympanic membrane. Because the external ear is elastic, the canal can be straightened vertically without injury or discomfort to the patient, permitting detailed and deep otoscopic examination by the trained clinician. The ear canal is lined by skin containing sebaceous glands, ceruminous glands, and hair follicles. Glandular secretions form the earwax. The tympanic membrane is the final structure visualized using otoscopy in healthy ears. It separates the external ear from the middle ear and is located at a 45-degree angle to the central axis of the horizontal canal. Structures on the tympanum that can be visualized include the small upper opaque and vascular portion (pars flaccida), the larger lower membranous and translucent portion (pars tensa), and the manubrium of the malleus embedded in the tympanic membrane. Knowledge of these structures helps the clinician reliably confirm tympanum health or lack thereof. In any diseased ear, the final part of otic assessment includes diagnostic sampling of the ear canal and/or pinna to check for secondary infection, using a cotton-tipped applicator. If excessive cerumen or debris is present in the ear canal, gentle ear flushing to remove excessive otic material is often done before starting otic therapy. For painful ears, sedation or anesthesia may be required to help complete otic examination and/or treatment. Although these general guidelines for otic evaluation and treatment hold true at all life stages, regular otic evaluation and treatment are especially important in early life, as early intervention and correction of otitis and its cause are key in preventing chronicity of disease in the patient. Some common
2. Excessive ear cleaning can lead to excessive humidity in the ear canal, especially in dogs with hairy ear canals, and should be avoided in healthy puppies.

3. Hair plucking may lead to excessive inflammation in the ear canal. Dogs with hairy ears do not need hair plucking if they do not show signs of otic disease.

4. Feline inflammatory polyps are non-neoplastic masses of the ear canal. Otoscopic evaluation helps visualize a smooth fleshy mass in the canal, and can be seen in cats between a few weeks to few months of age, although older cats can also be affected. These polyps may involve the middle ear, and symptoms may include chronic or recurrent otitis, pruritus, otic discharge, nystagmus, Horner’s syndrome, and head tilt. Unilateral disease is more common, although bilateral polyps are also seen.

5. Environmental and/or food allergy is a common primary cause of otitis in dogs and cats of all ages. Historically, very young puppies and kittens affected with dermatological and otic conditions were considered to be more likely to have food allergies than environmental allergies, but this may not always be true, so it is important to do a proper allergy workup rather than assuming food allergy to be the cause in younger animals.

6. Juvenile cellulitis in puppies often involves the ear canal and may initially start with otitis externa and pinna disease, along with facial lesions and marked lymphadenopathy.

7. Secondary infection with bacteria and/or Malassezia yeast is common with all primary ear conditions and can become a perpetuating factor if left untreated. No matter the primary cause of otitis in a pet, cytological testing to help design antimicrobial treatments is essential for success in treating otitis patients.

Presentations of otic disease that usually manifest within the first few months of life include the following:

1. Otodectes cynotis (ear mite) infestation may affect any dog or cat, but its highest incidence is seen in kittens. Ear mites cause the typical dark-brown to black, waxy or crusty otic discharge, popularly described as causing a “coffee grounds” appearance of the earwax. Occasionally, ectopic mites may cause skin symptoms and may be difficult to find in the ear canal. Mites can be seen via otoscopy or microscopic examination of earwax. Presence of even a single mite or egg confirms the diagnosis.

FIGURE 2: Healthy tympanic membrane in a young dog, demonstrating identifying structures of a healthy eardrum.

FIGURE 3: Ear canal of a young dog exhibiting mild erythema of the canal.

FIGURE 4: Healthy tympanic membrane in a cat.

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The video was chilling. A couple and their dog enter a Florida veterinary clinic, and the man holds the dog on the leash while the woman goes into a back bathroom. When she exits, before she returns to her companion’s line of vision, she slips a note to the receptionist. She quickly ducks her sunglasses so they can see her bruised eye. The note says: “Call the cops. My boyfriend is threatening me. He has a gun. Please don’t let him know.”

The staff read the note and exit the area and do everything correctly, calling the police without alerting the man. As the couple and their dog waited in an examination room, time must have almost stood still for the woman, who had not known exactly what was going on.

The police arrive and take control of the scene. The video inside the exam room clearly shows the man, thumbing his cell phone, when the exam room door opens, and police enter en masse. Lifting the man’s T-shirt, the police remove his loaded handgun and arrest him. In a later interview, the woman explained her boyfriend had been assaulting her for two days and her dog had what she thought was an injury caused by a bullet grazing its back. What happened in that exam room, time must have almost stood still for the woman. Look for unusual or recurrent injuries and stories that don’t add up.

Not all cases of domestic violence present in such an obvious fashion. There are many other signs, some so subtle that they might go unnoticed. The veterinarian as “the other family doctor” may be the first person to pick up on signs of violence in the home.

It has been noted by anti-violence workers that the risk of domestic violence drastically increases during a natural disaster, and this has proven to be accurate during the COVID-19 pandemic. A crisis hotline in Vancouver reports that their call volume has increased by 100 per cent during the pandemic. Some of the first countries heavily affected by COVID-19, including China, Spain, and the United States, report national or regional increases in domestic violence cases, including child abuse. This is due to more people witnessing abuse in the home and more people with fewer options looking for assistance. Loss of income and jobs, heightened anxiety and other mental health challenges, families under stress confined in close quarters, and lack of access to professionals such as teachers and doctors who often recognize and report abuse may all contribute to increased incidence of domestic violence.

Due to COVID-19 physical distancing precautions in veterinary facilities, many veterinarians are now not able to speak with animal guardians directly. This can complicate efforts to understand the history and identify risk factors. Survivors of domestic violence may go to great lengths to hide their injuries or deflect any attention brought to the topic. It is important to ask questions in a respectful and tactful manner. Sometimes the answers are in what’s not being said. Critical listening is required. Of course, none of us want to believe that injuries in our patients are due to abuse; however, listening to that voice in the back of your head could save an animal’s life and potentially even their owner’s. Look for unusual or recurrent injuries and stories that don’t add up.

In the province of British Columbia, under the Prevention of Cruelty to Animals Act, Section 22.1, a registered veterinarian has a duty to report distress. This does not mean that the veterinarian has to provide forensic evidence or irrefutable proof. It means simply that, if a veterinarian on reasonable grounds believes that an animal is being caused distress, they must report it and the case may be investigated by trained investigators. In BC, cruelty cases are investigated by BSCPA investigators, who have received training on the link between domestic violence and animal abuse and how to cross-report to law enforcement and social services if a victim or family needs help. Veterinarians should familiarize themselves with signs of physical abuse and neglect and basic evidence handling and collection techniques required to document cruelty cases. If the veterinarian is concerned for the animal owner’s immediate safety, they should contact local police.

Although many women will ask for help, there are still a large portion who won’t. This is often for fear of their own life or the life of their pets. In a study conducted by the University of Windsor, it was found that 86 per cent of women delayed leaving because they didn’t have anywhere to take their pet—and that 89 per cent of women who were abused reported that their pets were also abused by their partner. Abusers may hurt animals in an effort to control or harm women or children in the home. If a veterinarian suspects animal abuse, they may also be suspecting family violence.

Domestic violence in Canada accounts for approximately one-third of police-reported violent crimes, and 6 out of 10 domestic homicides were preceded by a known history of violence. It is important now, more than ever, to be vigilant and aware. A veterinarian’s instincts and experience can identify red flags for violence in the home; reporting these can save both human and animal lives. 

**RESOURCES**

**THE VETERINARIAN’S ROLE IN HANDLING ANIMAL ABUSE CASES:** www.canadianveterinarians.net/policy-advocacy/recognizing-abuse-veterinarians-role

**PREVENTION OF CRUELTY TO ANIMALS ACT:** www2.gov.bc.ca/GOV/content/justice/criminal-justice/victims-of-crime/victimlinkbc

**ENDING VIOLENCE ASSOCIATION OF BC:** endingviolence.org

**BC 211:** www.bc211.ca
LESSONS LEARNED FROM THE TIGER KING

BY DANIEL M. WEARY, DPhil

F or those of you who have not yet had the chance to meet Joe Exotic, Doc Antle, Carole Baskin, and the other challenging characters in the popular Netflix documentary *Tiger King*, I encourage you to do so. Yes, the show is profane and disturbing, but it shines a powerful light upon issues relevant to all of us who are interested in animals and their role in our society. In media coverage of the documentary, commentators have called for a number of changes, including the obvious (for example, legal changes that prevent or restrict keeping exotic animals, such as British Columbia’s Controlled Alien Species regulation that restrict individuals from keeping tigers and some 1,200 other species). The skeptic may see this simply as a case where notoriety provides a soapbox from which pre-established positions can be advocated, but I suggest that *Tiger King* also provides an opportunity for viewers to reflect upon the broader issues related to animals.

In particular, from this wreckage surrounding the private ownership of large cats there are at least three lessons about the human-animal relationship.

**LESSON 1—VULNERABLE PEOPLE ARE DRAWN TO ANIMALS**
The employees working with the tigers are often social outsiders, sometimes dealing with drug abuse and poverty, suggesting that the more vulnerable in our society are perhaps especially drawn to the tigers. Despite their failings in adequately meeting the needs of the animals, the workers give much of their life and—spoiler alert—sometimes limb trying to care for the animals. Throughout the documentary, the workers attest to their desire to care for what they view as creatures in need, even when this makes them complicit in exploiting the animals. A related question, stemming from the wild popularity of this show as the world suffers the collective anxiety brought on by the COVID-19 pandemic, is whether the draw of contact with animals is even greater when we experience social stress. In Vancouver at least, shelters for companion animals have experienced increased demand from adopters during the crisis. Thus lesson 1 is that even (and perhaps especially) when socially or emotionally vulnerable, humans have a great desire for some connection with animals. Acknowledging this, we are left with the question: how can we do a better job (for both animals and people) of responding to this need?

**LESSON 2—HUMANS DRAW POWER FROM ANIMALS**
At least in part because of the great draw of these animals, those who control access to the tigers seem to be able to exert great power over those who wish to work with them. In all three of the animal facilities featured, the staff is portrayed as either underpaid or unpaid, and in some cases the owners are portrayed as controlling and verbally and perhaps otherwise abusive. In this way we see a very dark side of the ways in which humans use animals—initially as a lure to attract others, and then as a tool to extend the reach of their control. Thus lesson 2 is that people sometimes use access to animals to exert control over others, opening the door to abusive or perhaps otherwise inappropriate relationships. Acknowledging this, we are left with the question: how can we put safeguards in place to reduce these risks?

**LESSON 3—HUMAN AND ANIMAL WELFARE ARE INTERTWINED**
In recent years, the idea of “one health” (that is, that human health is connected to animal and environmental health) has been extended to “one welfare” (that is, that the quality of life of animals is related with the welfare of the people who care for them). In the documentary, the workers’ living conditions are portrayed as being dirty, barren, and neglected, much like the conditions seemingly provided for the animals. As I write this, the news feeds are full of stories about the high rates of COVID-19 infections among slaughterhouse workers in the US, suggesting that the often-marginalized workers whose job it is to kill and process animals for our consumption see themselves working in conditions dangerous to their health. Indeed, once you are primed to look for it, the evidence for lesson 3, that the well-being of animals and their caregivers is intertwined, seems present all around us. The good news is that acknowledging this relationship provides another powerful rationale in advocating for improved standards of animal care.

Tigers, like the humans portrayed in *Tiger King*, are so incredible we can scarcely believe they exist. The exotic nature of the characters helps to draw us into the story, but like all good storytelling, the specifics serve to reveal more universal truths. Yes, there are powerful messages specific to tigers kept for display and as companions, and more broadly concerning the care, breeding, and trade of exotic animals. But perhaps our collective viewing of *Tiger King* can also trigger broader reflection on our relationship with animals. If the way these tigers are used and kept is unacceptable, then what other types of use and care should also be questioned?

Other instances of keeping exotic, keeping animals for display, keeping animals in poor living conditions, breeding animals simply so we can use the offspring for our pleasure? And what about the marginalized and vulnerable people who care for animals—what support can be provided to improve their lives and the lives of animals in their care? If you’ve watched this show, you’ve suffered the evil. Now use it for good. Talk to others about these questions, and let’s see what collective lessons can be drawn from this experience.
ONE of the reasons for my career change in my mid-thirties was the desire to leave the petty intrigues of academia for what I perceived to be the collegiality if not outright camaraderie of veterinary medicine. For the most part, I found exactly what I expected: a community of professionals whose highest goal is serving others in what are often life-and-death situations. Veterinary clinical work attracts people who are at least capable of putting the ego aside, if not used to doing so.

Nonetheless, people are people everywhere, and the pressures of veterinary work, combined with human flaws, can and do result in ugly behavior. Until recently I did not realize how prevalent harassment and bullying were, possibly because I’ve spent the last 10 years working as a locum and not a permanent associate. Speaking to the Chapter office, I learned that they occasionally get phone calls from veterinarians who are frustrated, angry, and emotional because a member of their staff has become a bully. These calls, I am told, do not centre on the veterinarian being concerned for themselves but more so on the fear and harm the office bully causes other workers, some of whom quit or go on stress leave or who simply suffer horrendously. One veterinarian called because their entire staff issued an ultimatum: either the bully be fired, or the entire staff would quit. In another situation, a bully had caused so much turmoil that even the veterinarian was afraid to confront them.

According to WorkSafeBC, bullying and harassment include “any inappropriate conduct or comment by a person towards a worker that the person knew or reasonably ought to have known would cause that worker to be humiliated or intimidated.” Bullying is often more subtle and sneaky than outright harassment, which is why a “reasonable person” is invoked as a judge. In reality such a person is a member of the workplace (unless external resources are called in as a last resort), with their own likes and dislikes, their friends as well as people they don’t much care for. A reasonable person is not an entirely logical, unfeeling Dr. Spock, but rather someone capable of putting aside their emotions and preferences when necessary and capable of empathy to the extent that they can imagine how a bullied person would feel. It is the hope and assumption that everyone in the workplace, including a bully and a person whose first reaction is to feel bullied, is capable of being a reasonable person.

It’s necessary to qualify what bullying and harassment are not. WorkSafeBC’s Occupational Health and Safety policies specify that the term “bullying and harassment” “excludes any reasonable action taken by an employer or supervisor relating to the management and direction of workers or the place of employment.” WorkSafeBC’s document on how to recognize bullying and harassment explains, “When it’s provided in a respectful manner, appropriate feedback to help staff improve performance or behaviour is not bullying and harassment. However, managers and supervisors should ensure performance problems are identified and addressed in a constructive, objective way that does not humiliate or intimidate.”

The most valuable compliment I received in my professional life is a group compliment paid to our OVC graduating class of 2008 by one of our professors, whom I quote from memory. “You take your work seriously, but you don’t take yourselves too seriously.” This sums up what I love about my profession and my colleagues.

The Bad and the Ugly: Bullying in the Veterinary Workplace

By Veronica Gventsadze, MA, PhD, DVM
When Incivility involves an imbalance of power and is targeted at a specific person, it becomes bullying or harassment.

Bullying and harassment in the veterinary workplace. I think we can draw relief and optimism from real- izing that when it comes to bullying, we as veterinarians are no more than human, and not all that different from our counterparts in any other profession. The Veterinary Association of British Columbia viewed bullying as a workplace issue that requires addressing. It is not a solitary or isolated event. It does not stem from one particular perpetrator, but is the result of a combination of factors, including organizational culture. It is a systemic issue that affects not only individual veterinary professionals, but also the entire veterinary team. It can have a profound impact on the well-being of those involved, as well as the broader veterinary community.

The National Association of Veterinary Technicians in Canada has stated that bullying and harassment are not limited to human medicine workplaces; they can also occur in veterinary settings. In a recent study, veterinary technologists were found to be the most common victims of bullying, followed by veterinarians and veterinary nurses. The study also found that bullying can occur at any level of staff interaction, and can happen to or by or between veterinarians. It can also occur between colleagues, or even between veterinary professionals and clients.

Bullying and harassment can have serious consequences for everyone involved. It can cause physical and emotional harm, decrease job satisfaction, increase stress, and impair mental health. Bullying and harassment can also lead to a decrease in job performance, absenteeism, and intentions to quit. It can also affect the ability of those involved to perform their job effectively and efficiently.

Bullying and harassment can also have a negative impact on the veterinary communities. It can lead to a decrease in trust and respect among veterinary professionals, and can also lead to a decrease in the ability of veterinary professionals to provide quality care to their patients. It can also lead to a decrease in the ability of veterinary professionals to provide quality care to their clients.

Another study, conducted in the UK in 2017 in response to anecdotal reports of bullying, is summarized in the report Behaviour in Veterinary Practice. The study found that bullying and harassment can occur at any level of staff interaction, and can happen to or by or between veterinarians. It can also occur between colleagues, or even between veterinary professionals and clients.

The veterinary profession is not immune to the problem of bullying and harassment. It is not a solitary or isolated event. It does not stem from one particular perpetrator, but is the result of a combination of factors, including organizational culture. It is a systemic issue that affects not only individual veterinary professionals, but also the entire veterinary team. It can have a profound impact on the well-being of those involved, as well as the broader veterinary community.

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WHAT ARE EXAMPLES OF BULLYING?
(From the Canadian Centre for Occupational Health and Safety)7

While bullying is a form of aggression, the actions can be both obvious and subtle. It is important to note that the following is not a checklist, nor does it mention all forms of bullying. This list is included as a way of showing some of the ways bullying may happen in a workplace. Also remember that bullying is usually considered to be a pattern of behaviour where one or more incidents will help show that bullying is taking place.

Examples include:
• Spreading malicious rumours, gossip, or innuendo.
• Excluding or isolating someone socially.
• Intimidating a person.
• Undermining or deliberately impeding a person’s work.
• Physically abusing or threatening abuse.
• Removing areas of responsibilities without cause.
• Constantly changing work guidelines.
• Establishing impossible deadlines that will set up the individual to fail.
• Withholding necessary information or purposefully giving the wrong information.
• Making jokes that are “obviously offensive” by spoken word or e-mail.
• Intruding on a person’s privacy by pestering, spying or stalking.
• Assigning unreasonable duties or workload which are unfavorable to one person (in a way that creates unnecessary pressure).
• Underwork—creating a feeling of uselessness.
• Yelling or using profanity.
• Criticizing a person persistently or constantly.
• Belittling a person’s opinions.
• Unwarranted or undeserved punishment.
• Blocking applications for training, leave or promotion.
• Tampering with a person’s personal belongings or work equipment.

If you are not sure an action or statement could be considered bullying, you can use the “reasonable person” test. Would most people consider the action unacceptable?

• Increased absenteeism.
• Increased turnover.
• Increased stress.
• Increased costs for employee assistance programs (EAPs), recruitment, etc.
• Increased risk for accidents/incidents.
• Decreased productivity and motivation.
• Decreased morale.
• Decreased corporate image and customer confidence.
• Poor customer service.

HOW CAN BULLYING AFFECT THE WORKPLACE?
(From the Canadian Centre for Occupational Health and Safety)8

Bullying affects the overall “health” of an organization. An “unhealthy” workplace can have many effects. In general these include:

2. https://www.navta.net/page/Harassment
3. https://veterinaryrecord.bmj.com/content/173/11/266
4. https://mro.massey.ac.nz/bitstream/handle/10179/11190/02_whole.pdf?sequence=2&isAllowed=y


Additional mental health and wellness resources are listed at: www.canadianveterinarians.net/documents/mental-health-support-resources
ORAL EXAMINATION
OF THE PEDIATRIC AND
JUVENILE PATIENT

BY ANGELICA BEBEL, DVM, Dipl.AVDC

This issue’s specialist column on dental care of young patients is broken into two parts. This instalment discusses the transition from deciduous to permanent dentition, and the second, which will appear in the fall 2020 issue, focuses on malocclusions and developmental oral abnormalities.

It is often assumed that dental problems are limited to older or senior patients but, while the incidence of periodontal disease and other oral problems increases with age, young animals can also suffer from a number of dental disorders.
From the very first visit, a thorough oral examination is a vital part of the physical examination every time a puppy or kitten comes in. Early recognition and treatment of these problems can prevent more serious complications later in life, and waiting until a young patient presents for a spay or neuter surgery often leaves it too late. Furthermore, many dental conditions are painful and require immediate treatment to alleviate suffering (Figure 1). This article will review some of the more common dental problems that can occur in the first year of life.

NORMAL DECIDUOUS AND PERMANENT DENTITION

By eight weeks of age, the deciduous dentition of a dog or cat should be fully erupted. These deciduous teeth are smaller, finer, and sharper than their permanent successors. The canine pediatric patient should have three deciduous incisors, one deciduous canine tooth, and three deciduous premolar teeth in each quadrant (for a total of 28 deciduous teeth) (Figure 2).

Feline pediatric patients should have three deciduous incisors, one deciduous canine tooth, and three deciduous premolar teeth in the maxillary quadrants. The mandibular quadrants should also have three deciduous incisors, one deciduous canine tooth, but only two premolar teeth, for a total of 26 teeth in the feline pediatric patient.

In canine patients, there are no deciduous precursors for the mandibular and maxillary first premolar or molar teeth (Figures 2a and b). Feline patients do not have a deciduous precursor for the molar teeth. In addition, cats do not have permanent maxillary first premolar teeth and permanent mandibular first and second premolar teeth. Therefore, there are no deciduous counterparts for these teeth. In both cats and dogs, the deciduous premolar teeth appear as smaller versions of the permanent teeth that erupt behind them (Figure 2, Figure 3).

By 12 weeks of age, a mixed dentition is often present, where both permanent and deciduous teeth have erupted. If a deciduous tooth is congenitally absent, then the successional permanent tooth will also be absent. This should be confirmed with intraoral radiographs.

Eruption of the permanent dentition of both dogs and cats follows a specific pattern. However, eruption times in dogs can be quite varied depending on the size of the breed and characteristics within that breed. In dogs, the permanent incisor teeth erupt before the canine teeth. The permanent maxillary and mandibular incisor teeth erupt palatally and lingually to the deciduous predecessors. The permanent maxillary canine teeth erupt mesially to the deciduous canine teeth, and the permanent mandibular canine teeth erupt lingually to the deciduous predecessors (Figure 3).

While all of the mandibular permanent premolar teeth erupt lingually to the deciduous predecessors, the permanent maxillary second and third premolar teeth erupt palatally, and the permanent maxillary fourth premolar erupts mesiobuccally (Figure 3). The eruption pattern of the rostral teeth (incisors and canines) in cats follows a similar pattern, with the permanent molar teeth usually erupting before the premolar teeth. In both dogs and cats, eruption of the permanent dentition is usually completed at six to seven months.

DELAYED ERUPTION OF TEETH

Since the dentition and anatomy of the mouth is constantly changing, a thorough oral examination during every puppy and kitten visit is necessary to make sure the oral and dental development is following a normal path. By eight weeks of age, all deciduous teeth should be erupted and in their correct position. By six to seven months of age, all permanent teeth should be erupted. In some cases, deciduous and permanent teeth may fail to erupt. If a tooth is absent during an oral examination, dental radiographs should be obtained to confirm its absence. If there is an impacted tooth that is lying in an abnormal position or that has a physical impedance to its eruption, the tooth should be extracted. The early detection of impacted or embedded teeth is important to prevent a dentigerous cyst from forming (Figure 4).

"SINCE THE DENTITION AND ANATOMY OF THE MOUTH IS CONSTANTLY CHANGING, A THOROUGH ORAL EXAMINATION DURING EVERY PUPPY AND KITTEN VISIT IS NECESSARY TO MAKE SURE THE ORAL AND DENTAL DEVELOPMENT IS FOLLOWING A NORMAL PATH."

PERSISTENT DECIDUOUS TEETH

A deciduous tooth still present in the mouth at the time of the succeeding permanent tooth is defined as "persistent" and is likely to interfere with the normal eruption pathway of the permanent tooth. As a general rule, there should never be two of the same tooth type occupying the same spot at the same time. If the permanent tooth crown is visible above the gingival margin, then the deciduous tooth should be gone.
Persistent deciduous teeth are more common in small-breed dogs but are also seen in cats and larger dogs. This is most commonly seen with canine teeth, but can be seen with other teeth including incisors and premolars (Figure 5).

If a deciduous tooth is still in place, it should be removed as soon as possible. Persistent deciduous teeth can force the permanent tooth to erupt in an abnormal location, causing a malocclusion. In addition, they can lead to crowding and encourage the rapid accumulation of plaque and debris, predisposing the area to periodontal disease (Figure 5). Leaving a persistent deciduous tooth in place until the time of spay or neuter surgery is inappropriate. In some cases it may be possible to combine the procedures by moving the spay or neuter to an earlier date, but if this is not possible, then the persistent deciduous teeth should be extracted as soon as they are recognized. In patients that have had deciduous teeth extracted, the adult teeth may still continue to erupt in an abnormal position. Therefore, these patients should have follow-up examinations to monitor the eruption of the permanent dentition in case additional treatments are required.

Fractured teeth
Deciduous teeth are generally thinner and more fragile than their permanent counterparts. In addition, deciduous canine teeth are long and narrow. As a result, these factors make deciduous teeth, particularly canine teeth, more susceptible to fractures that expose the pulp chamber to the oral bacteria. This results in inflammation, infection, and ultimately death of the pulp tissue. Any fractured deciduous teeth should be extracted immediately rather than postponing the extraction until the time of a spay or neuter surgery. Delaying removal of these injured teeth will result in unnecessary pain as the infection in the tooth reaches the tooth apex and extends into the surrounding bone. This increases the risk of osteomyelitis, fistula formation, and damage to the developing permanent teeth (Figure 6).

Extreme care should be taken during the extraction of any deciduous tooth to avoid fracturing the root and to avoid trauma to the developing permanent tooth. Instruments should be small and should fit the shape of the deciduous tooth. Radiographs should be obtained before to help determine the position and presence of the permanent tooth bud if the permanent tooth crown has not begun to erupt. This will help guide safe placement of extraction instruments, reducing the risk of trauma. For example, the permanent buds of the maxillary canine teeth are located mesially to the deciduous teeth, and the permanent buds of the mandibular canine are located distolingually to the deciduous teeth (Figure 3). Therefore, it is best to place extraction instruments along the distal surface of the deciduous maxillary canine and along the mesiobuccal surface of the deciduous mandibular canine. Radiographs should be obtained after every extraction to confirm complete removal of the deciduous tooth. No root remnants should be left behind, as this can result in infection, pain, and complications with the developing permanent teeth.
Iliopsoas injuries in dogs

by David Lane, DVM, Dipl. ACVSMR

Iliopsoas muscle or tendon injuries are a common cause of hind end pain and dysfunction in dogs. Presentation of such injuries varies from barely discernible discomfort to debilitating lameness. Although iliopsoas pain can be a primary cause of lameness, more commonly it represents a secondary complication stemming from another hind end lesion. Subjectively, I would argue that iliopsoas pain is the leading reason why dogs that have received successful cruciate surgery do not return to a fully athletic lifestyle.

The psoas major muscle runs bilaterally lengthwise along the ventral face of the lumbar spine in approximately the five and seven o’clock positions (Figure 1). It then merges with the iliacus muscle to form the common iliopsoas tendon that inserts on the lesser trochanter of each femur. The primary function of the muscle is as a hip flexor, but it also acts as a lumbar stabilizer. Because of the intimate relationship between the psoas major muscle and the lumbar spine, psoas pain results in back pain, and back pain gives rise to psoas pain. This means that both conditions often exist concurrently, and it can be tricky to determine which of the two is the ringleader and which is the henchman.

Common morbidities that frequently accompany psoas pain include intervertebral and lumbosacral disc disease, lower back pain (LBP), and hindlimb arthritic conditions such as hip dysplasia or cruciate ligament disease.

Primary iliopsoas-induced hindlimb lameness frequently involves partial disruption of the tendon itself, and/or tearing of the adjacent musculature. It tends to be a condition of athletic dogs, often acutely occurring during high-speed activity on slippery ground: situations in which the hind limb unexpectedly slips backward, suddenly lengthening the iliopsoas at a time when the muscle was actively contracting. More typically though, iliopsoas tendon injuries present as chronic conditions: the result of repetitive stress or repeated insult with insufficient opportunity to heal between insults. Such chronic cases reflect tendinopathy (versus acute injuries that usually reflect tendinitis). Treating tendinitis requires a reduction of the inflammatory process through vasoconstriction, whereas tendinopathy treatment requires the opposite: vasodilatation to increase regional blood flow and facilitate healing.

The spectrum of clinical presentations of iliopsoas cases varies widely, in part because there may be multiple morbidities occurring simultaneously. Some iliopsoas cases are subclinical, only revealing themselves during palpation. Others cause minor decreases in athletic performance, such as hesitating before jumping in the car, or failing to turn as sharply at high speed. Many cases present with nonspecific LBP. The owner may report a kyphotic spine (Figure 2), reduced ability to negotiate stairs, difficulty rising from a lying position, or reduced activity. Some dogs abruptly stop in the middle of exercise, refusing to walk further until they have had an opportunity to rest. Others present with a skipping gait, similar to that seen in dogs with luxating patellae. Still others are profoundly lame, either unilaterally or bilaterally.

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The cornerstone to diagnosing iliopsoas pain is palpation. The entire muscle should be examined from the cranial lumbar spine as far forward as the dog’s anatomy will allow, along the mid-lumbar region, and over the tendon proper as it inserts on the femur. Low- to medium-grade, but clinically significant, discomfort can only be diagnosed by palpation.

To locate the muscle, think of the lumbar spine as a clock face, and gently probe as close to the six o’clock position as possible, rolling the pads of your fingers lightly over the muscle mass felt just lateral to the midline. Follow that muscle as far cranially as possible, and then caudally to the femur. Show your patient the same consideration that you would expect your doctor to show you when performing a deep groin palpation—move slowly and don’t suddenly increase pressure. Look for subtle signs of discomfort, such as flinching or head turning, rather than eliciting screams of pain.

Most iliopsoas cases will resist hip extension, but a small subset will only show pain on hip extension combined with internal rotation of the hindlimb. If the patient allows full hip extension, but then reacts when internal rotation is introduced on top of extension, iliopsoas injury near the tendon becomes the primary diagnostic rule-out. (See the video links on page 37 for a demonstration.)

Radiography cannot be used to diagnose iliopsoas injury, but enthesophytic change of the lesser trochanter is suggestive of chronic injury that may or may not be currently active (Figure 3).
Ultrasound or MRI imaging provides the necessary soft tissue detail required for a diagnosis. Ultrasound (Figure 4) is less expensive and requires less anesthetic than MRI, but MRI can rule out the existence of concurrent intervertebral or lumbosacral disc disease. The combination of CT and ultrasound also provides good sensitivity for both conditions.

Treatment options for iliopsoas injuries vary as widely as the initial presenting symptoms, and there is a lack of peer-reviewed research contrasting the effectiveness of these treatment methods. Access to necessary equipment also varies between veterinary hospitals, as does the proximity to a referral practice, which further complicates the decision-making process for general practitioners. What follows is a summary of how I personally approach the diagnosis and treatment of iliopsoas injury. Others may choose a different path, depending on the resources available to them.

**INITIAL EXAMINATION**

**Using palpation, identify as accurately as possible the source and severity of the iliopsoas pain. Is it unilateral or bilateral? How severe is it? Is it located on the tendon itself or further cranially? Is there evidence of any of the comorbidities mentioned earlier in this article, and if so, how painful is the peoas pain relative to the other comorbidities?**

**IMAGING**

I will proceed immediately to imaging for dogs with severe pain, or if the suspicion is high that we will find macroscopic damage of the muscle or tendon. Typically, radiographic images of the lumbar spine, hip, and stifle joints, and ultrasound imaging of the iliopsoas are sufficient to confirm the diagnosis. If I am concerned about concurrent disc disease, then I may combine the ultrasound with a CT or use an MRI as the sole imaging technique.

**TREATMENT**

When confronted with significant concurrent LBP and iliopsoas pain, I typically respond by treating the LBP first, using a combination of acetaminophen and manual therapy, plus therapeutic laser. If the iliopsoas pain has not completely resolved following two treatments of the above combined modalities, then imaging is recommended. Close to 90 per cent of mild to moderate cases will fully resolve just by treating the LBP.

**Treatment options for iliopsoas injuries vary as widely as the initial presenting symptoms, and there is a lack of peer-reviewed research contrasting the effectiveness of these treatment methods.**

In general, bilateral mild to moderate iliopsoas pain is secondary to LBP, but moderate to marked unilateral iliopsoas pain more likely reflects a primary injury. Pain localized cranially along the muscle belly away from the tendon, is more likely to reflect a minor, secondary focus of discomfort. If there is underlying hip dysplasia and/or cruciate disease, then I consider any treatment of the iliopsoas to be temporary and palliative only, until such time as the underlying condition has been properly addressed. Since there is substantial overlap in the treatment options for both iliopsoas and coxofemoral osteoarthritis pain, simultaneous treatment of both conditions is easily accomplished.

Targeted treatment of the iliopsoas itself, for mild to moderately painful cases, or those with no macroscopic changes evident on imaging, typically consists of laser, acupuncture, and manual therapy. If the iliopsoas pain is chronic and/or if the tendon under ultrasound guidance. For dogs so small that is easily accomplished with a class IIIb laser, applied against the abdominal wall with enough pressure to compress tissue until the probe is less than 4 cm from the lumbar spine. This is easily accomplished with a class IIIb laser, but for class IV lasers, this may require reducing the power to 500 mW.

For cases refractive to the conservative treatment described above, or for cases in which macroscopic changes are evident on imaging, extracorporeal shockwave therapy (ESWT) and/or regenerative medicine is recommended. ESWT is my treatment of choice for cases with no macroscopic damage, for owners seeking pain relief rather than a return to athleticism, or for owners who have declined regenerative medicine. The procedure is well tolerated by most patients, especially with pre-existing conditions such as coxofemoral osteoarthritis, or degenerative meniscal disease. It can be combined with the other conservative measures listed above, with pre-existing conditions in the form of oral anti-inflammatory drugs, typically together with other conservative measures listed above, those to five treatments of ESWT are required to resolve the issue.

For the most severe cases, those with intractable pain, macroscopic damage to the tendon or muscle, and/or if the owner is looking for the dog to return to an athletic lifestyle, then regenerative medicine is my treatment of choice. For medium to large dogs, I combine bone marrow aspirate concentrate with platelet-rich plasma, and inject it directly into the tendon under ultrasound guidance. For dogs so small that the collection of an adequate marrow sample is logistically problematic, I combine platelet-rich plasma with cultured stem cells of adipose origin.

Surgical transection of the iliopsoas tendon remains a final option for those cases refractory to the treatments listed above, but owners should be prepared for a reduced level of athleticism in dogs receiving this treatment. Surgery is also indicated in the rare situation of a complete avulsion of the iliopsoas tendon requiring reattachment. To date, I have never seen a case of iliopsoas tenodesis that required surgical intervention.

The time required to resolve an iliopsoas injury varies widely, depending on the severity and chronicity of the lesion, and on the presence or absence of comorbidities. Mild acute iliopsoas pain secondary to LBP can often be resolved in a day, whereas damaged tendons require four months before the patient can return to normal activity. In general, the prognosis for fully resolving iliopsoas injuries is excellent. Having said that, those patients with chronic underlying conditions such as coxofemoral osteoarthritis, or degenerative lumbosacral disease, may require ongoing maintenance to prevent the recurrence of low-grade iliopsoas pain.

**VIDEO LINKS**

West Coast Veterinarians is trying out this new interactive function. We were given the opportunity to link to videos produced by this story’s author, illustrating the techniques he writes about. What do you think? Would you like to see more interactive content by reading your print copy and then clicking your online copy? Here’s the link to the videos for this story! Please let us know by email: wcveditor@gmail.com.

- [ILIOPSOAS STRETCH](https://youtu.be/ZuJ5JrK_zrY)
- [NORMAL ILIOPSOAS STRETCH BUT SORE PALPATION](https://youtu.be/89OlWUkzDe0)
- [NORMAL ILIOPSOAS PALPATION](https://youtu.be/3JUVnMwYLnc)
- [ILIOPSOAS PALPATION](https://youtu.be/9253gJz4w00)
- [ILIOPSOAS STRETCH](https://youtu.be/36Yd0hIiKpA)
- [ILIOPSOAS STRETCH BUT SORE PALPATION](https://youtu.be/2LaJ5U9ArV)

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**https://youtu.be/2LaJ5U9ArV**
In May 2019, the World Health Organization included burnout in its International Classification of Disease but later issued an urgent clarification stating, “Burnout is an occupational phenomenon, not a medical condition.” However, many in the profession lack a deep understanding of the concept of burnout. Burnout and compassion fatigue are problems with the individual rather than a problem with the workplace. Maslach used the following metaphor to illustrate her point using impactful imagery: picture a flock of happy, healthy canaries singing as they fly into a coal mine. When they come out full of soot and disease, no longer singing, can you imagine us asking why the canaries made themselves sick? No, because the answer would be obvious: the coal mine is making the birds sick.

Burnout and compassion fatigue are common in the helping professions, and veterinary medicine is no exception. I suspect the canary and the coal mine metaphor hits home with many of us. If we truly want to help people in veterinary medicine flourish, we need to transform the coal mine. Imagine what it would look like to work in a veterinary hospital with a thriving culture—where inspiring leaders empower toward a greater purpose; ideas flow freely; collaboration rather than competition is the norm; everyone feels safe, appreciated, and able to bring their true self to work; and ego, blame, and shame are replaced by authenticity, transparency, and trust. It is time for leaders in the veterinary industry to take note and shift the responsibility of managing burnout from the individual to the organization.

As I write, the world around us is changing rapidly. On March 16, 2020, Prime Minister Trudeau’s address focused our nation on the grim reality of COVID-19. By the time this article goes to print, phrases like flattening the curve and social distancing will not only inform our decisions and behaviour, they will be part of our collective vocabulary. To put it simply, our leaders were asking us to change our individual, Western mind-set to a mind-set that empowers the individual as a collective, and focuses on selfless, meaningful, and lasting solutions to our collective needs.

In light of a growing pandemic, few can argue that we do not live in a time where people are looking for meaning in their lives. They suggest that the time is right to shift the focus in our shared history. In their book Firms of Endearment: How World-Class Companies Profit from Passion and Purpose, Rajendra Sisodia, David Wolfe, and Jagdish Sheth, “the new management issue is making the birds sick.”

Cultural transformation is a complicated process, in part because culture itself is an intangible concept. Much like an individual’s personality, the culture of an organization is the unconscious set of assumptions, attitudes, and principles that manifest in the decisions, actions, and behaviours of the people who work there. Cultural transformation is a slow process that requires commitment and patience.

AWARENESS
The first step in transforming culture is understanding what needs changing in your practice. Recognizing that a problem in your hospital’s culture can be difficult. Often unhealthy attitudes and behaviours are so deeply entrenched that we do not realize they exist. If we as a society are unaware that a problem exists. However, if a team has established a high level of trust and psychological safety, leaders can initiate open dialogue to better understand the positive and negative aspects of their practice culture. Open-ended questions, survey tools, and team brainstorming sessions can be methods to facilitate conversations on culture (see the sidebar “It Takes a Team”). Sometimes existing outside consultants with an unbiased perspective may be helpful to guide cultural change initiatives. Understanding what is working for your team and what is holding them back provides practice leaders with a road map to guide the process.

PLANNING AND PURPOSE
In leadership culture there is an outdated myth involving a charismatic leader who will save the day by the sheer force of their personality and the reality in any organization creating sustainable change requires a group effort. Every team member needs to understand the need for change and see the benefits inherent in that change. Creating a shared vision or mission that brings a sense of excitement and purpose to your team is critical to success. Consider the hopes, desires, and frustrations your team shared with you previously and enlist their help to co-create a vision based on the strengths identified in your existing practice culture. Dig into your values and those of your team. Does your vision align with these values?

WALKING THE TALK
Team members look to their leaders for both inspiration and direction. There must be alignment between the practice’s values and the actions, values, and behaviours of the practice leader. Inauthentic leadership will destroy any change initiative before it begins. Veterinary practices, like any organization, need leaders with high levels of self-awareness and emotional intelligence. Leaders who are willing to do the difficult work of self-reflection, challenge their assumptions, and change behaviours that negatively impact their practice and team. Investing in leadership development training is essential to create cultural change in our industry (see the sidebar “Leadership Development Resources”).

IMPLEMENTATION
Your hospital’s new mission and values need to be internalized with your team. The process of embedding the new values and behaviours into daily decision making and practice life is perhaps the most challenging part of the process. Look for opportunities to reinforce values in action. Recognize the cultural ambassadors on your team and reward the behaviours that embody the culture you desire. Believe in the power of people to do the right thing and take time to celebrate your team’s success. Be sure to take time to review your hospital’s policies, procedures, and incentives and make sure they reflect the new organization values. Finally, recognize that change is often met with resistance. Focus on the benefits a thriving culture will offer the entire team and be clear, consistent, and fair during the change process. Help your employees see how they fit, offer them support, and be patient.

EVALUATION
Culture is constantly evolving. Rather than a final destination, it is a process that needs continual evaluation and refinement to stay relevant. Interventions (changes in the team) as well as external forces (new technology and evolving standards of care) will affect hospital culture. Leaders need to look for ways to measure the effects of change initiatives and evaluate whether it is having the desired effect. A variety of parameters can be employed in the evaluation process. As an improvement in culture will improve patient satisfaction, evaluate feedback from clients. Both formal tools like employee surveys and feedback forms and informal observation of team interactions and behaviours can provide insight into the effects of change initiatives. In our own practice, it is an empowering and healthy culture attracts attention. The ease with which you attract new employees is another metric to gauge the health of your practice culture.

Changing the culture of a profession is an overwhelming task. In the wake of a global pandemic, most of us long for a return to the status quo, the comfort of certainty over the uncertainty that COVID-19 has thrust upon all of us. While this mind-set is understandable, I challenge you to ask yourself how well the status quo served your team. Is the vision of a future culture with clear directions and growth plans the vision you want? How do you want your practice better. Through shared purpose, alignment, and commitment, you can create a healthier coal mine where all of the canaries can come out singing.

REFERENCES

Cultural Toolkit: www.wvldi.org

WOMEN’S VETERINARY LEADERSHIP DEVELOPMENT

1. Autonomy, or the freedom to make choices regarding how, when, with whom, and where you work. Companies that give their employees high levels of autonomy report faster growth and lower staff turnover.

2. Mastery, or the ability to improve at something that challenges them. Leaders who have the intellectual challenge and the ability to master something new and engaging is a driving force behind productivity.

3. Purpose, or a cause that is larger than the employee. Intrinsically motivated individuals, such as helping others, learning, or improving, are associated with greater levels of satisfaction and subjective well-being than extrinsic motivators, such as achieving fame or financial success.

I want to create a flourishing veterinary community, I believe we need to change our “coal mines.” Cultural transformation is a complicated process, in part because culture itself is an intangible concept. Much like an individual’s personality, the culture of an organization is the unconscious set of assumptions, attitudes, and principles that manifest in the decisions, actions, and behaviours of the people who work there. Cultural transformation is a slow process that requires commitment and patience.

WHAT THE ACCOUNTABILITY, AND TRANSPARENCY IN THEIR WORKPLACE AND FEEL PROUD OF THE
TICK-BORNE DISEASES IN B.C.

BY ERIN FRASER, BSc, MSc, DVM, AND BRIAN RADKE, PhD, DVM

The rate and distribution of tick-borne diseases in British Columbia varies from other parts of Canada due to climate, landscape, and tick- and pathogen-related factors, and this article discusses current evidence (although there are numerous information gaps) on the epidemiology of tick-borne diseases, tick identification, and pathogen testing approaches, as well as the research efforts aimed at improving the evidence on current and future risks of tick-borne diseases in the province.

HOW ARE TICKS IDENTIFIED AND TESTED IN B.C.?

In B.C., ticks collected from animals can be sent to the B.C. Centre for Disease Control Public Health Laboratory for identification and pathogen testing (only for black-legged ticks—bolds up). This is currently performed on a fee-for-service basis for regular submissions from veterinarians and animal owners. This method of data collection is considered a passive surveillance system in that we only capture data about ticks and pathogens from voluntary submissions. There have also been several active surveillance projects in B.C. that have proactively collected tick samples from animals or from the environment. Several initiatives that will provide us with additional information on tick prevalence in the environment and tick-borne pathogens are currently underway in B.C:

• The B.C. Centre for Disease Control (BCCDC) is leading a One Health initiative throughout Alberta, B.C., and Saskatchewan to improve our evidence base on tick-borne disease risks in relation to various climate change scenarios. This project, which is funded by the Public Health Agency of Canada, began in January 2020, and opportunities for B.C. veterinarians to participate in this project will be announced in the coming months.

• The Canadian Lyme Disease Research Network is conducting a four-year sentinel surveillance project across Canada that includes several sites in B.C. Project results from the first year collected ticks from the environment will be published in mid-2020.

• The Ontario Veterinary College has finished their one-year Canadian Pet Tick Survey with veterinary clinics across Canada. Data from this project are being analyzed over the summer and will be shared with the Canadian veterinary community when the results are finalized. See www.petticksurvey.com/canadianpet-tick-survey.

• Merck Animal Health has been working with the BCCDC on a tick surveillance project in companion animals with 10 veterinary practices in the Lower Mainland, Vancouver Island, and the Okanagan Valley. Results from this project are expected in 2021.

WHAT TICK-BORNE DISEASES HAVE BEEN DETECTED IN B.C.?

While Lyme disease, caused by Borrelia burgdorferi, has received significant attention in the media and among various health professionals, the rates of human illness in British Columbia have remained very low (0.5 cases per 100,000 population) and very stable over the last 15 years. Less than 1 per cent of ticks tested in B.C. have been positive for the Lyme disease pathogen. The epidemiology of Lyme disease in B.C., where I. pacificus is the primary vector of Lyme disease, differs significantly from eastern Canada where I. scapularis is the primary vector that transmits B. burgdorferi. This is, in part, due to characteristics of I. pacificus that make it a less efficient vector of the agent of Lyme disease than I. scapularis. Ecological modelling of Lyme disease risk areas in B.C. has been conducted, and a Lyme disease risk map is posted at the BCCDC’s Lyme disease webpage. The BCCDC also maintains a communicable disease dashboard and shares human Lyme disease case rates and distribution patterns on a publicly available site. See www.bccdc.ca/health-professionals/data-reports/reportable-diseases-data-dASHBOARD.

In animals, not all tick-borne diseases are reportable or notifiable to B.C.’s Chief Veterinarian; therefore, we do not have a complete picture of the occurrence of tick-borne diseases in animals in the province. However, the new initiatives described above will help us fill important information gaps. There are currently four tick-borne diseases in animals that are reportable or notifiable in B.C.: tularemia, Lyme disease, anaplasmosis, and Rocky Mountain spotted fever. Other tick-borne zoonotic pathogens of concern in B.C. include Babesia sp., Ehrlichia sp., and other Borrelia sp. (for example, B. miyamotoi and B. mayonii). Currently there is minimal evidence on the prevalence and distribution of these pathogens in B.C. Table 1 highlights current evidence on tick-borne diseases in animals in B.C.

**Very low levels (0–2 cases per year) of anaplasmosis, Lyme disease, and ehrlichiosis in animals are reported in B.C. Travel history is not known for all cases; therefore, a portion of these reported cases may have travelled outside of B.C.**

**WHAT TICK-BORNE DISEASES HAVE BEEN DETECTED IN B.C.?

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Tick Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaplasmosis</td>
<td>I. pacificus, I. scapularis</td>
</tr>
<tr>
<td>Babesiosis</td>
<td>I. pacificus, I. scapularis</td>
</tr>
<tr>
<td>Lyme disease</td>
<td>I. pacificus, I. scapularis</td>
</tr>
<tr>
<td>Borrelia burgdorferi</td>
<td>I. scapularis</td>
</tr>
<tr>
<td>Ehrlichiosis</td>
<td>I. scapularis</td>
</tr>
<tr>
<td>Rocky Mountain spotted fever</td>
<td>I. scapularis</td>
</tr>
</tbody>
</table>

**HOW TO SUBMIT A TICK FROM AN ANIMAL FOR TESTING IN B.C.**

• View submission guidelines on the BCCDC Public Health Laboratory at: www.elabhandbook.info/PHSA/Default.aspx (enter “tick identification” into the search field in the elab Handbook).

• Collect the tick in a small vial with a damp cotton pad.

• Download and complete BCCDC PHL parasitology requisition from the elab Handbook.

• On the form, indicate the travel history of the animal, specifically if it has travelled outside of B.C.

• Send the sample to the BCCDC Public Health Laboratory at 655 West 12th Avenue, Vancouver, BC, V5Z 4R4.

• The lab will send an invoice after they receive the tick submission. The cost for testing of ticks from animals is currently $100 for tick identification, and an additional $50 for Lyme disease pathogen testing of black-legged ticks. For further information, contact BCCDC’s public health veterinarian at Erin.Fraser@bccdc.ca or 778.677.7790.

RESOURCES

• BCCDC’s Lyme disease page: www.bccdc.ca/health-info/diseases-conditions/lyme-disease-borrelia-burgdorferi-infection


• Tick Talk: ticktalkcanada.com

“THE BCCDC ALSO MAINTAINS A COMMUNICABLE DISEASE DASHBOARD AND SHARES HUMAN LYME DISEASE CASE RATES AND DISTRIBUTION PATTERNS ON A PUBLICLY AVAILABLE SITE.”

animal companions. including those with less robust immune systems, can’t live with and physical benefits from living with cats and other pets. With unlikely to be a zoonotic risk. There are many emotional, mental, Cats without gastrointestinal, ocular, respiratory, skin, or urogenital SUMMARIZE be scooped daily, preferably not by the immunologically fragile unknown health status, especially those with diarrhea. Feces should examined by a veterinarian for health and potential zoonotic risks arthropod-free adult from a private home; this cat should be who want to adopt a new cat should consider a clinically healthy, of zoonotic infection, people with compromised immune systems discreetly and to receive appropriate information. To reduce the risk in immunocompromise enable people to identify themselves Signs or posters in the clinic that describe which conditions result HELPING IMMUNOCOMPROMISED PEOPLE be a source of.

Several options are available. These include lease renewal, purchase of the clinic real estate holdings. of the clinic real estate holdings. Please contact Dr. Jim Gammie phone 250.495.6431 in Osoyoos after March 15, 2020. And to contact personally please phone 250.495.6431 in Osoyoos from retiring Vet as of June, 1/20. Veterinarian(s) to take over lease located companion animal practice. West Coast Veterinarian has the broadest distribution of any veterinary publication in BC. Contact Inga Liimatta at inga@telus.net DO YOU WANT TO REACH VETERINARIANS? West Coast Veterinarian has the broadest distribution of any veterinary publication in BC.

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