



Anti-vaccine sentiments are on the rise in veterinary medicine.

**Canine distemper** has been diagnosed in local puppies in the **lower Fraser Valley**.

It is hard not to draw a cause and effect conclusion between these two facts. A 2021 CVJ article affirmed what you perhaps are experiencing along with what I have heard. The percentage of owners declining vaccines is on the rise. The article was based on a survey from over 2000 vets throughout the USA and Canada including BC. Over 60% of vets felt that the number of cat and dog owners declining core vaccines had increased. Considering the limitations of a survey based study this is still of worthy discussion.



Vets have been accepting new puppy and kitten clients during the challenging times of the pandemic wanting to avoid an outbreak of **preventable infectious** diseases such as parvovirus and canine distemper virus (CDV). Distemper can be found in wildlife and has been seen in imported dogs as well as in remote communities and shelters but would be considered rare within our local pet population.



In the April CVBC email alert, a local 17 week old puppy with dermatologic and severe neurologic signs was confirmed to be CDV positive. I would like to highlight the salient features of another local puppy confirmed to be CDV positive last November. At 8 weeks of age he presented afebrile with a history of intermittent vomiting and diarrhea. Gastrointestinal signs persisted for 9 days prior to the development of a soft cough. Shortly after a thick green nasal discharge was seen along with a single seizure-like episode. Over 48 hours despite supportive care, seizure activity with "chewing gum" motions continued with increased frequency. Both puppies were euthanized due to progressive and severe neurologic disease. This is not an outbreak, but between these two cases we have seen a few other PCR positive cases and the vet team should be aware of this fact and keep CDV as a possible differential for several clinical presentations. That said - Rule out common diseases first.

## Canine Distemper -Brief Refresher

**Clinical signs are variable in appearance and severity.**

- Fever, lethargy, decreased appetite
- Mild respiratory signs as seen with canine infectious respiratory disease complex (CIRDC) which can progress to include oculonasal discharge, persistent cough and secondary bronchopneumonia (from immunosuppression).
- Vomiting/diarrhea (when present for over a week with respiratory signs this should increase the concern for CDV).
- Progressive neurologic signs especially young dogs: seizures, abnormal mentation, blindness, cerebellar or vestibular signs, para or tetraparesis, rhythmic twitching of muscle groups (myoclonus). Acute CDV in puppies can cause focal "chewing gum" seizures. Neurologic signs can even occur weeks to months after apparent recovery
- Conjunctivitis, anterior uveitis, optic neuritis, or KCS
- Pustular dermatitis, hyperkeratosis of nose and footpads
- Concurrent disease due to immunosuppression

**Diagnosis -consider a combination of testing/sample sites.**

- CBC (or CSF)- check for inclusion bodies within leukocytes or red blood cells. (rare occurrence)
- 4 fold rise in antibody titer (assuming not vaccinated)
- **RT-PCR testing of multiple body sites - consider CSF, tonsils, conjunctival swab, or urine. Urine may be advantageous.**
- IFA testing (in unvaccinated patients) on conjunctival, tonsil, or respiratory epithelium cytology smears or CSF, blood/buffy coat, urine sediment or bone marrow.
- IHC on histology samples - Skin/Nasal Mucosa or Foot Pad Biopsy

Moving forward in the goal of prevention, the good news is the veterinary team is a **highly trusted one** according to recent studies despite Dr. Google's and social media's competition.



How can one take that knowledge and strive towards changing owner's opinions? The answer is beyond the scope of this newsletter but a continued combined effort between all facets of our vet and vet team communities is essential. Inherent goals include educating, spreading the word about core vaccine disease risk, adjusting communication approaches to each client, as well as discussing the risks of pet importation. To quote Dr. Scott Weese regarding new CDV strains: "While we have been most concerned with the importation of canine influenza virus from Asia to North America by improper procedures by various "rescue" groups, the importation of CDV may be more significant in that **CDV once it enters an ecosystem cannot be eradicated** even with effective vaccines."



The American Animal Hospital Association interviewed Lori Kogan, PhD, a **licensed psychologist and professor of clinical sciences at Colorado State University's College of Veterinary Medicine**. She provides some approaches when talking to clients. In the interview she notes how she explains the different diseases and "I let them know that these are some real, tangible, potential effects of making a decision to not vaccinate."



You can find her brief [interview here](#). Unfortunately, we can say the **tangible risk** of CDV in the valley may have increased.



## References and Resources:

Kogan LR, Hellyer PW, Rishniw M. American and Canadian veterinarians' perceptions on dog and cat core vaccination rates and the impact of the human medicine anti-vaxx movement on veterinary medicine. [Can Vet J. 2021;62\(3\):247-252](#). Open Access

Evason M & Sue Taylor (2019) Canine Distemper Virus (Distemper) In Scott Weese and Michelle Evason (Eds) *Infectious Diseases of the Dog and Cat*. pp 99-102. Taylor and Francis -CRC Press.

<https://www.uwsheltermedicine.com/library/resources/canine-distemper-cdv#Incubation>

<https://www.wormsandgermsblog.com/?s=distemper>

<https://www.cliniciansbrief.com/article/canine-distemper-virus>

Client Hand out: Worms and Germs - Dr. Weese - [Canine Distemper Virus](#).

Client Hand Out: [Distemper in the Canadian Wildlife Population](#).

CVMA Infographic: [Canine Importation Discussion Checklist](#)

CFIA rules "then and now" for [Canine Importation Under the age of 8 months](#).