

# Port Perry Vet Services Quarterly

January 2020

## What's New at the Clinic?

Happy New Year everyone! We thank you for your patronage over the past year and wish you all much happiness and success in 2020. We have very exciting news that we would like to share. We have purchased a new building to operate out of and are looking to be moved in by the spring once renovations are complete! Our new location is less than 5 minutes away from our current location and you will be pleased to hear that you will be able to make left hand turns out of the parking lot!

In February we will see the return of Drs. Allison Doherty and Brittany Scace back to the practice full-time. Although they aren't excited about the cold weather, they are looking forward to seeing everyone and their animals!

On your next invoice you may notice a small increase in the mobile fee we charge. Due to the increased costs of getting ourselves to your farms, we needed to make this change.

We will once again be celebrating animal dental health month by offering no mobile fee on all dentistry appointments using the powerfloat for the month of February. For more information about this or to book an appointment, please call the office at 905-982-1243. Because we are a little late getting the info about this out to you, we are extending dental month until Friday March 6, 2020.

We are offering our Equine Wellness Plans again this year! The choices include our standard package with optional add-ons that covers the vaccination and dentistry needs of companion and show horses alike. We also have two other plans, an Equine Geriatric Wellness Plan and an Equine Neonatal Wellness Plan. In the coming weeks we will be sending out more information about these programs via email, and will post everything on our Facebook page and website.

Speaking of vaccinations, we experienced a higher than normal rate of reactions in horses in 2019. This prompted us to begin to purchase our vaccines from a different company. They report very low rates of reactions and so far we have been very happy with their vaccine line. If you have any questions or concerns about vaccinating your horse(s) please do not hesitate to speak with one of the veterinarians.

Amongst the usual conditions we tend to see more of in the fall/winter (colic and choke in horses, pneumonia in ruminants) we have also been treating a lot of scouring calves and horses with "fat legs," particularly cellulitis. There have been enough of these cases lately that we thought we should cover these topics in this newsletter.

## Cryptosporidiosis in Ruminants

Over the past few months we have seen lots of sick calves! There are always a lot of pneumonia cases in the fall and winter but there have also been a lot of calves with scours recently. A number of farms have seen more cases than in previous years, with cryptosporidiosis (crypto) being the primary culprit. Crypto is a parasite that infects the intestinal tract of calves (and other species, including small ruminants and humans) causing dehydration and diarrhea. Infection occurs when young animals ingest oocysts that are present in the environment or shed by another animal. These oocysts can persist for months if the conditions are cool and moist, and they are resistant to many disinfectants.

Once an animal ingests an infective oocyst, it takes only a few days for the parasite to cause destruction of the cells of the intestines rendering them unable to absorb anything, causing the development of diarrhea. How sick an animal will become depends on how many oocytes they ingest and if they are experiencing any concurrent issues. In uncomplicated cases, the animal's immune system will fight off the infection and the diarrhea will last about 3 days with low fatality rates. The more complications that are present, the more severe the diarrhea will be and the longer it will last. Cases usually occur in animals from age 5-21 days and often occur along with rotavirus and coronavirus infections or any other situation that causes animals to be immune compromised, such as umbilical infections or failure of passive transfer. It is for this reason that calf/lamb/kid health programs should be of utmost importance on any farm to help prevent crypto.

A presumptive diagnosis is made based on history and clinical signs and is confirmed by fecal testing (sucrose wet mount test). Any farm dealing with a new or worsening incidence of scours in their calves (or lambs/kids) should have samples sent for testing. A neonatal enteric panel exists that identifies crypto infections as well as any other concurrent causes of scours (rotavirus, coronavirus, etc...)

Treatment is mostly supportive until the diarrhea resolves. Sick calves should be kept in a warm, clean and dry environment. Mild cases may only need oral electrolytes, anti-inflammatories and continued milk feedings. We recommend that oral fluids be given in small frequent meals. We suggest feeding 4 meals a day, 2 milk feedings and 2 electrolyte feedings. The meals should alternate between milk and electrolytes and be separated by at least 3 hours. Feeding milk and electrolytes too closely together can cause diarrhea and/or bloat. More severely affected calves that are visibly dehydrated/not eating will need IV fluids as well. Antibiotics are not effective for treating parasitic infections such as crypto, but may be used depending on a variety of factors. The medication halofuginone (Halocur) can be used to reduce the output of oocytes in the feces and reduce the clinical signs associated with crypto infection.

Prevention is aimed at controlling the amount of oocysts in the environment. Halocur can be given for 7 days following birth to help, but it is far more important to clean up the environment the calves are born into and live in. Ensuring calves receive adequate good quality colostrum at birth, employing proper naval dipping procedures and other methods to ensure healthy calves will greatly reduce the clinical cases of crypto seen. Separating the calves with diarrhea from the healthy ones until several days after their diarrhea has resolved and using strict sanitation measures at feeding will help prevent transmission. It is important to note that crypto is zoonotic which means it can be spread to people and cause significant diarrhea in humans as well. Always wear gloves and wash your hands after handling sick calves/lambs/kids.

## Cellulitis/Lymphangitis in Horses

Cellulitis or lymphangitis can be a very frustrating ailment for horse owners and veterinarians alike. First thing to note is that since there are a multitude of possible reasons for a suddenly painful, swollen leg - such as fracture or tendon injury (in addition to cellulitis or lymphangitis) - the first step should always be to call your veterinarian to ensure that the correct treatment plan is put in place.

The definition of and difference between cellulitis and lymphangitis is generally agreed to be a difference in degree or severity, with lymphangitis being a much more serious issue. With cellulitis, the inflammation is of the subcutaneous tissues (under the skin). This often affects blood vessels within the limb, which are capable of healing or at least creating new pathways to replace damaged ones. Therefore, horses with cellulitis can often fully recover without further issues. Lymphangitis, on the other hand, affects the lymphatic system, the vessels of which, when damaged, never return to their original state of elasticity. The job of the lymphatic system is to return fluid - lost in normal processes through the capillaries - to the bloodstream. The muscle contractions during movement help move the fluid within the vessels by squeezing along their length, and backflow is prevented by a series of one-way valves. When the lymph nodes become overwhelmed with inflammatory cells, trying to fight infection, the lymphatic vessels become damaged, and with enough accumulation, the

fluid leaks into the surrounding tissues - causing the drastic swelling. The pooling in the vessels is what causes them to lose their elasticity, making the horse more prone to further bouts of swelling.

What causes this severe infection and inflammation is often difficult to determine. Any break or disruption in the skin can allow bacteria to enter and cause infection. Cracks from mud fever are thought to be a common entrance point for bacteria. The penetrating wound does not need to be large or obvious and sometimes there is no visible lesion.

The clinical signs to watch for include the obvious "stove pipe" leg, where swelling can be severe and extend from below the fetlock to above the knee or the hock. It most often involves one or both hind legs, but can be seen in front limbs as well. It is usually very sudden in onset, with the horse being fine the night before or morning of, and then being found only a few hours later with a problem. They are often very hot and painful with "pitting" edema - swelling that leaves an indentation when pressed. The pain is often so intense that they will be non-weight bearing and lift the leg away from pressure to the point of almost falling over. They may or may not have a fever, be off feed, refuse to walk and can sometimes break into a sweat from pain. In severe cases, there is so much swelling, the skin becomes so tightly stretched that serum oozes from the skin and can scald the area causing further infection and irritation.

"Stocking up" or a minor accumulation of fluid in the lower limb(s) is also a common cause of a fat leg, but is much less severe and can be differentiated because there was no pain or heat and usually simple increased movement will resolve it.

Treatment for the more mild cases of cellulitis can be uncomplicated and effective, but with the more severe, recurring lymphangitis cases, it can often be frustrating and less responsive to regular treatment. Antibiotics, anti-inflammatories and cold therapy are all always used. If cold hosing is used, care must, however, be taken to dry the leg well, as leaving skin wet can further compromise the skin as a barrier. Steroids and diuretics are also often used in more severe cases to try and further reduce swelling. It is important to try and get the horse moving as soon as it is comfortable enough to do so. With movement, the fluid can start to be moved out of the limb again, helping to reduce the fluid accumulation in the limb. Trotting is even more effective in getting fluid moving, so should be incorporated as soon as it is tolerated. The idea of wrapping the leg is controversial. Often, when the leg is at its most swollen, it is best to avoid wrapping, as swelling can continue above the bandage. It is, however, sometimes advisable to wrap the leg to help continue with the reduction of swelling, especially if a full limb, overlapping bandage is used.

The idea of prevention is always more appealing than reactive medicine and some precautions can be taken to decrease the risk of having a horse develop cellulitis/lymphangitis. Keeping the environment clean and dry, free of any dangerous debris can help. Cleaning and drying the legs well as often as possible is also recommended. However, even when steps are taken to reduce the risk, lymphangitis can occur. Frustrating is definitely a good description of this sometimes career ending disease!