PORT PERRY VETERINARY SERVICES -QUARTERLY-

The Lowdown on Strangles

Strangles is a highly contagious disease affecting horses, ponies, mules and donkeys caused by the bacterium Streptococcus equi subsp. equi. It can affect horses of any age, but younger horses (<6 years) seem to be affected more commonly.

Transmission occurs via direct contact with an infected horse or when a horse comes in contact with a contaminated area such as stall or paddock (the bacteria can live in the environment up to two weeks!) Caretakers can also carry the bacteria on their hands or clothes, although humans will not get sick from it. Sometimes a horse may be present in a group that doesn't show outward signs of strangles but could be a carrier animal that intermittently sheds the bacteria affecting other horses.

A horse will start showing signs of sickness within a few days to up to two weeks after exposure. Usually the earliest sign is fever, and this progresses to depression, nasal discharge, and enlarged and abscessed lymph nodes in the throat and jaw areas. Depending on the severity of the condition in a particular horse they may experience difficulty breathing (hence the name strangles), loud breathing, or difficulty swallowing. Other complications of having strangles can include "bastard strangles" where abscessation occurs elsewhere in the body, purpura hemorrhagica (inflammation of blood vessels due to an abnormal immune...

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What's New at the Clinic?

Congratulations to Dr. Rachel Stadnyk and Jamie Risebrough on the arrival in April of their beautiful baby, Alexa Rae! Everyone is doing well and little Alexa has already made it out to the farm to see the cows!

Many of you have already met Lisa Sharko, as she has been travelling with the vets working as a technician until her veterinary licensing requirements for Canada have been met. We are excited to announce that she passed all of her tests and is fully licensed to work as a veterinarian so you can expect to see her on your farm all by herself now!

During the months of May to August you will be meeting many students who will be riding along with us. We have four veterinary students completing their fourth year externship placements, Nicole, Karen, Sarah, and Gillian. We are also hosting several students working hard to gain experience to apply for veterinary college. We thank you all for allowing these students to visit your farms and learn from you and your animals.

Until July 31, 2015, Boehringer-Ingelheim is offering a promotion to encourage clients to perform more milk cultures on their cows. When you purchase one of their 12 pack boxes of mastitis treatment products (Cefa-Lak, Cefa-Dri or Dry-Clox) you will be given a voucher for one free milk culture. When the pails of 144 syringes are purchased, vouchers for 12 free milk cultures will be given. If you have any questions about this promotion, feel free to discuss them with one of the staff members by calling 905-982-1243.

In May, Dr. Allison Doherty attended an Advanced Equine Dentistry course in Alberta, where she attended lectures and learned some new techniques including performing dental nerve blocks, extractions, and jaw fracture repairs.

The Lowdown on Strangles - continued

response), or the development of dried up pus (chondroids) in an area of the horse's head called the guttural pouches, where the horse can develop that carrier state we mentioned earlier.

Strangles is usually diagnosed by clinical signs, but it is a good idea to confirm the diagnosis with a nasal swab or swab of the abscess material followed by culture. Quick diagnosis is important so measures can be put in place to minimize the spread of the disease. Endoscopy of the horse's guttural pouches may be needed to confirm carrier horses (using a flexible tube with light and eyepiece to look in the horse's head).

Treatment is mostly supportive involving flushing the abscesses, applying warm compresses, and often using anti-inflammatories to help control the fever. Antibiotics are reserved for certain cases because they can delay maturation of the abscesses and ultimately their resolution. If a horse is experiencing difficulty breathing a procedure called a tracheotomy may be needed where an incision is made into the trachea ("windpipe") to allow the horse to breathe better (this is not commonly required).

If there is a possible case of strangles at your farm, aside from involving a veterinarian, it is important to separate the affected horse(s) from the others, and caretakers looking after those animals must use separate equipment and clothing. Temperatures should be taken on all horses daily. There are many other things to do in the event of an outbreak and we can advise you further on all of the steps involved in managing strangles should you have to deal with it in the future.

Given how contagious this disease is, prevention is very important. Although horses that have been infected have good immunity to strangles for several years, it's obviously better if your horse doesn't become infected in the first place! Vaccination with the intranasal product has been shown to help prevent disease as long as it is boostered appropriately. Practicing good biosecurity when travelling with your horse is also important, as is quarantining new arrivals to the farm for two weeks.

Polioencephalomalacia

Polioencephalomalacia, also known as polio or PEM, is a condition common in ruminants. Disturbances in minerals and vitamins causes a deficiency in thiamine which leads to the death of brain tissue. It is most commonly seen in young adult or weanling small ruminants, dairy calves, or beef cattle. Intensive management, such as feedlot animals, and those fed a high concentrate diet are at a higher risk.

Thiamine, or vitamin B1, is produced in the rumen by the bacteria normally present there. A change in the flora, for example from a sudden change in fed or a high concentrate diet, can cause a decrease in the production of thiamine or an increase in an enzyme (thiaminase) which uses up the store of thiamine. Thiaminase is also found in some plants such as horsetail and bracken fern, which can cause decreased thiamine concentrations when ingested. A low concentration of thiamine in the brain cells causes metabolic changes leading to cell death. High sulfur intake can also cause polio. High sulfur can be found in concentrates, molasses, some forages like alfalfa, and water sources. A high concentrate diet lowers the rumen pH and in turn increases the hydrogen sulfide production in the rumen which affects the brain tissue.

Animals with polio are initially depressed and anorexic, then start to show neurological abnormalities (elevated head, circling, tremors, apparent blindness). In the final stages the animal may experience convulsions, muscle rigidity, and coma. Polio must be differentiated from other neurological diseases such as: lead or salt toxicity, water deprivation, listeria, Clostridium diseases, pregnancy toxemia, CAE, and tetanus. Polio is treated with supplemental thiamine, steroidal anti-inflammatories and supportive care. Severe cases often die despite treatment due to severe brain damage so early detection and treatment is key. Polio can be controlled by balancing concentrates and roughage, proper pre-weaning management to promote rumen flora development, and by being aware of mineral and vitamin concentrations in your feeds, additives and water.

If you are having any problems with polio or have any questions about prevention please feel free to call us at the clinic at 905-982-1243.