

# PORT PERRY VETERINARY SERVICES

## -QUARTERLY-

### CORNEAL ULCERATION AND HORSES

Given the large size of horse's eyes and their location on their face, they are in a vulnerable position for injury. Scratches on the outer layer of the horse's eye, called the cornea can be caused by hay, straw, burs, or any number of things! These scratches or defects in the cornea, can be large or small, superficial or deep, and are called ulcers.

Corneal ulcers can often be diagnosed based on the appearance of the eye. Horses with a corneal ulcer are seen squinting and tearing and sometimes their eyelid is swollen. A depression where the ulcer is present may also be seen. Depending on the severity of the ulcer, the eye may appear blue from inflammation (edema), the pupil may be very small (miotic) from pain, there may be blood vessels present trying to help heal the ulcer, or the cornea may appear white/yellow which could be evidence of an abscess developing, or a better case scenario is a white appearance indicating a scar is emerging. Horses with corneal ulcers also usually avoid bright light, called photophobia.

Ideally whenever a horse is showing any of the signs described above, it should be seen by a veterinarian. A misdiagnosis of an eye condition or the severity of an eye problem by a horse owner could lead to more lengthy and costly treatment than if the condition was

seen earlier and in some cases, the horse may lose the eye.

When we go to look at an eye case, it is easiest for us to look at the eye in a dark area. To facilitate a thorough exam, some horses may need sedation or nerve blocks to limit their ability to hold their eyelid shut. In nearly all cases of suspected ulceration we apply a stain to the cornea which helps to confirm the presence of the ulcer because the ulcerated area holds the yellow stain showing us the extent of the scratch. We also may perform additional tests such as cytology and/or culture to help identify what antibiotics are best suited to treat the ulcer and to

rule in or out concurrent fungal infection.

Treatment of mild ulcers involves the use of antibiotic ointment and often a substance to dilate the pupil, as well as a pain medication such as bute or flunixin (Banamine). If you are not familiar with which eye ointments are acceptable for ulcers versus other eye conditions, we recommend you consult with us before trying to treat an eye on your own, as certain ointments can actually delay healing of the cornea. Treatment of ulcers can take only a few days or as long as over a month! More advanced cases will take longer to heal, and will

#### WHAT'S NEW AT THE CLINIC?

On Wednesday October 7, we hosted another client education seminar. This year's seminar was entitled, "A Day in the Life of a Large Animal Vet" and featured a compilation of interesting routine and emergency cases. Thanks to everyone that joined us! We had an excellent turnout and there was a lot of great questions and discussion.

Starting this month, Dr. Allison Doherty will be leaving to begin her maternity leave. We wish her all the best on the arrival of first little one and look forward to seeing her back on the road this spring! We also have a new staff member to introduce; Meaghan has been working part-time with us for the past few months.

In September, Dr. Stephanie Cukier attended the American Association of Bovine Practitioners (AABP) Annual Conference, held in New Orleans. Some of the lectures she spent time at focused on foot rot, breeding programs, and a particularly interesting study showing that contrary to the common belief, students performing rectal palpations on cattle did not adversely affect the cow's pregnancy!

require more intensive treatment. Sometimes in order to save the eye a special tubing system called a subpalpebral lavage may be required and is placed under the eyelid and onto the cornea with the tubing running through the horse's mane. This system allows frequent administration of medications and ensures the meds actually make it

onto the horse's eye. We all know how hard it can be to put ointment into an unwilling horse's eye! Horses with severe enough ulcers to warrant this type of treatment are usually sent to referral hospitals for management because of how labour intensive it is to treat these eyes.

Fortunately, most of the corneal

ulcers we see are mild in nature and heal uneventfully with early treatment. However, because eye issues can turn bad very quickly, we are always happy to look at your horse or speak with you about concerns you may have when your horse is experiencing an issue with its eye!

## BLOAT IN RUMINANTS

Bloat in cattle, and occasionally sheep, is one of the easiest conditions to recognize as it has a characteristic "papple" shape to the abdomen. When viewed from the back the cow will have half a pear shape to her right abdomen and half an apple shape to her left because of the shape and location of the rumen, the largest of the four stomachs and the one affected in bloat. Bloat can take two forms: frothy bloat and gas bloat. In frothy bloat, the rumen fills up with foam, whereas in gas bloat it is full of free gas. We will look at the causes and treatment for both kinds.

### Clinical Signs

Along with the enlarged abdomen, cattle exhibit signs of discomfort such as kicking, pawing and lying down, they are off feed, there is decreased to absent rumen movement and increased respiratory efforts and rate.

### Frothy Bloat

Frothy bloat is caused by gas getting entrapped within a foam and the bubbles not being able to combine together to be eructated out of the rumen as free gas. The foam is formed by ingestion of high protein leafy forages that when broken down in the rumen form a layer around the gas bubbles thus stopping them from forming free gas. Alfalfa and clover are two of the forages implicated most often

in this disease. As more protein is broken down, more foam forms thus increasing the intraruminal pressure and causing the rumen to become distended. Frothy bloat also occurs in feedlot cattle on fine-particle high-grain diets that are low in roughage. The foam in this case is caused by slime produced by bacteria in the rumen that have proliferated due to the fine particle feed entrapping the gas in bubbles. It usually occurs after 14 days on the feed. Treatment for frothy bloat involves getting an emulsification agent into the rumen to break down the foam into gas and allow the animal to eructate it off normally. Vegetable oils will do this as does dioctyl sodium sulfosuccinate, found in Anti-Gas. If found early enough, the animal can be tubed and have one of these agents with water put into the rumen through the tube. If the animal's breathing is severely compromised, putting a tube down her throat may stress her enough that she dies, so a trochar will be placed into the rumen through the flank. The agent can then be put into the rumen through this hole and free-gas can be let off this way also.

### Free gas bloat

Gas bloat is caused by many different diseases. Grain overload causes an increase in fermentation and more gas production and decreased pH of rumen contents.

This will cause an esophagitis or rumenitis that will interfere with normal eructation so gas gets entrapped in the rumen. Esophageal obstruction (either from something stuck within the esophagus or a lump pressing on it from the outside of the esophagus) also blocks the normal eructation of gas. Interference with the nerve pathways involved in rumen movement or eructation (such as with vagal indigestion or hardware) can also lead to a build up of free gas in the rumen. The build up of gas causes an increase in intraruminal pressure and then ruminal distention. Treatment for gas bloat simply involves removing the gas and hopefully determining the cause of the bloat. The animal can either be tubed or have a trochar placed to remove the gas and then additional treatment (such as anti-inflammatories, antibiotics or laxatives) are given which are aimed at correcting the cause of the bloat. Understanding the causes of bloat can assist you in preventing it in your herd through appropriate dietary management. Early detection and quick treatment can be the difference between a live animal and a dead one, so monitoring cattle in high-risk situations (ie on alfalfa grass, in feed lots, grazing corn fields) closely is an important part of preventing this disease.