



Dawson Creek Veterinary Clinic

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Cushing's Disease in Horses

Have you ever seen an older horse that has a long hair coat even in the summer, is a little bit pot bellied and seems to have less muscle over his rump area?

Cushing's Disease, also known as Equine Cushing's Syndrome, is a disease that is most often seen in older horses. It is also called PPID (Pituitary Pars Intermedia Dysfunction). It is a disease caused by improper functioning of the pituitary gland (a small gland at the base of the brain), specifically the pars intermedia. It may be due to a small slow growing tumour in the gland or just as a result of dysfunction of the gland. The gland starts to produce and send out too much of the hormones it generally produces in low levels including adrenal cortical stimulating hormone (ACTH) and alpha melanocyte stimulating hormone (MSH). This results in the horse's adrenal glands producing too much glucocorticoids (steroids). Produced in normal levels glucocorticoids have useful functions in the body such as helping decrease inflammation, affecting nerve tissue function and muscle tone, and helping to regulate the metabolism of carbohydrates, proteins and fats. When glucocorticoids are produced in abnormally high levels they can wreck havoc in the body.

The results of the disease are generally very typical symptoms with the earliest symptom being seen (but not always recognized by the owner) of increased drinking (as much as 2 times normal amounts of water may be drunk) and increased urination. The horse will often lose some muscle mass and have fat put down on neck, head and abdomen resulting in a pot bellied appearance. The tumor can also push on the hypothalamus (another important area of the brain that controls thermoregulation and it is thought that this is why horses with this syndrome typically have a very long wavy haircoat and fail to shed out in the summer. They will often sweat excessively as well.

Horses with Cushing's syndrome are often more at risk of getting infections (tooth root infections, skin infections, pneumonia) because the glucocorticoids suppress their immune system. They are also more at risk of developing laminitis (or founder) and becoming very lame.

There are several tests that veterinarians can perform on a horse to determine if he/she has Cushing's syndrome. The two tests most commonly performed involve checking for cortisol (glucocorticoid) or ACTH levels in your horse's blood. Your veterinarian will be able to determine which type of test will be best for your horse. Generally it is recommended that horse's be tested in the late winter or spring for the disease for the greatest accuracy in testing.

Unfortunately there is no cure for the disease. Fortunately though there are medications available which can help to treat the disease and control the symptoms. Generally Pergolide, a daily medication is given in the horse's feed or by mouth to treat the disease and will need to be given for life. Weight control and diet modifications may also be needed to help decrease the risk of the horse developing laminitis.

If you have any questions about this disease or suspect you may have a horse with the syndrome and would like to know more about testing or treatment, please feel free to contact one of our veterinarians.