

Equine Cushing's Disease

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What is Equine Cushing's Disease?

Have you ever noticed a horse with a long curly hair that does not shed out in spring? This may be an early sign of Equine Cushing's Disease. Pituitary pars intermedia dysfunction, often referred to as Equine Cushing's Disease, is a common disorder in older horses and ponies. Research shows that it can occur in up to 25% of aged horses. The typical age of a horse diagnosed with PPID is 18-23 years. Early diagnosis is often difficult, but can lead to a better prognosis for treatment. The most common, and often earliest, clinical sign is an abnormal haircoat that does not shed out in the spring.



Photo: <http://www.horsetalk.co.nz>

What causes Equine Cushing's Disease?

This endocrine disease begins with a deficiency of dopamine within the brain. This deficiency is caused by degeneration of dopamine-producing neurons in the brain and is similar to the disease process that occurs in human Parkinson's disease. In normal horses, dopamine acts to inhibit the pars intermedia of the pituitary gland. Without dopamine's inhibitory effect, the pituitary gland enlarges and begins producing an overabundance of hormones. These hormones affect many different body systems, including causing the adrenal gland to overproduce its own hormone: cortisol. PPID is slowly progressive, and may occur in up to 25% of aged horses.

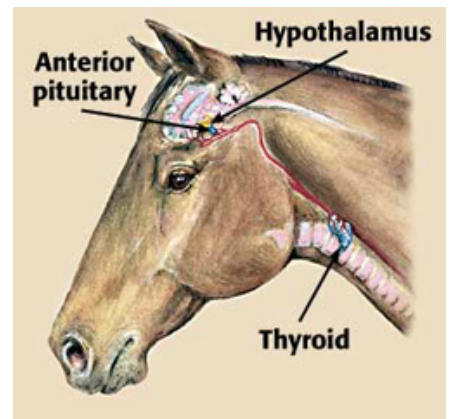


Photo: <http://www.novobrace.com/>

Common clinical signs

Besides an abnormal haircoat, other common clinical signs of PPID include weight loss and/or muscle wasting, abnormal distribution of body fat, lethargy and hyperhidrosis (excessive sweating). The excessive production of cortisol can often lead to chronic laminitis. Depending on the progression of the disease, the laminitis can become severe and life-threatening. Chronic laminitis often appears externally as divergent rings in the hoof capsule. Since cortisol is immunosuppressive, horses with PPID are more prone to chronic or recurrent infections. If you notice any of these clinical signs, you may consider getting your horse tested for PPID.



Photo: <http://barefoothoofcare.net/>

Testing

There are several different tests that can be performed to diagnose PPID. All of these tests involve drawing at least one blood sample from the horse and measuring the levels of various hormones in the bloodstream. The two most commonly used tests are baseline ACTH and the TRH stimulation test. All horses with suspected Cushing's disease should have their insulin levels evaluated as well because insulin resistance is commonly associated with PPID.

Treatment

The drug pergolide (Prascend) is the treatment of choice for PPID. This drug works by mimicking the action of dopamine in the brain, which inhibits the pituitary gland and prevents the overproduction of pituitary hormones. In addition to pergolide treatment, proper management and nutrition is important for treating horses with PPID. Since PPID horses are at risk for developing insulin resistance, they should be fed a diet that is low in soluble carbohydrates. This can include a complete feed, such as a senior feed, that is high in fiber but low in starch. Grazing should be limited due to the high carbohydrate content of lush pasture. PPID horses should have dentals performed twice a year, and should have regular fecal floats performed in order to develop an appropriate deworming program. Proper trimming/shoeing is vital for managing horses with chronic laminitis due to PPID.

Prognosis

With pergolide treatment and proper management, horses with PPID can live many years with a good quality of life. Pergolide is a life-long treatment for affected horses, and often the dose will need to be increased in order to continue controlling the signs of the disease. Early diagnosis and treatment can improve the prognosis. Good management practices are equally as important as pergolide in maintaining a good quality of life for horses with PPID.