

EQUINE CUSHING'S DISEASE

by Tom Hutchins DVM, DABVP

The average age of Cushing's horses is late teens with an age range from 7 to 40 years. There is no sex predilection; mares, geldings and stallions seem to be at equal risk. Incidence in ponies appears increased compared with horses but population analysis hasn't been done. No specific horse breed appears to be affected more than another.

Because of the slow onset of the disease and the complex metabolic changes that occur, a wide variety of clinical signs are seen. Hirsutism or excessive hair growth is the clinical sign most commonly noticed. Approximately 85% of affected animals exhibit coat abnormalities, including the classic thick, long, curly coat that is sometimes not shed. Less striking coat changes are also seen, including slightly heavier than usual winter hair coat; shedding later in the spring and regrowing winter coats earlier in the fall than other animals housed under similar conditions; and patchy, slow shedding sometimes associated with transient patchy hair loss. Early in the course of the disease, many animals do not exhibit striking coat abnormalities.

Chronic or recurrent acute laminitis is seen with moderate frequency in horses with Cushing's disease. Laminitis is assumed to be the result of excessive cortisol levels in circulation similar to the effects of excessive grain consumption causing laminitis. Sole abscesses are a common problem in Cushing's horses and are probably the most common cause of euthanasia. Cushing's disease should be considered or suspected in any horse over 15 years of age with recurrent foot/sole abscess formation or laminitic episodes with no apparent cause, even if hair coat changes or other clinical signs are not evident.

Polyuria (PU) [increased urination] and polydipsia (PD) [excessive drinking] are commonly present in Cushing's horses. There is a multifactorial cause of this resulting in significant hor-

mon imbalance and reduction of antidiuretic hormone (ADH) secretion. Hyperglycemia also causes an osmotic diuresis. Increased cortisol levels can also affect and increase urine production. Other differentials for PU/PD include kidney disease, diabetes, psychogenic diabetes, and hyperglycemia.

Hyperhidrosis (excessive sweating) is observed in many Cushing's horses, but the specific mechanism is not understood. Differential diagnosis for excessive sweating is a rare adrenal gland tumor known as a pheochromocytoma; however, hyperhidrosis in these cases is usually associated with anxiety, elevated heart rate, and dilated pupils.

Muscle wasting is also a common complaint and is probably primarily related to disuse and aging. Although weight loss is a common complaint, it is not necessarily directly related to Cushing's disease. The vast majority of the horses studied has been of normal weight or are obese. Those horses that are thin or debilitated typically have a heavy parasite burden, severe dental problems, or lacked teeth, requiring special diets that had not been provided. Cushing's horses must be carefully assessed for condition of teeth, diet, and gastrointestinal parasitism, because they easily acquire heavy parasite burdens. Thin, debilitated Cushing's horses should be fed meal or softened alfalfa pellets with vegetable oil to increase caloric intake. When provided in moderation, pelleted, all-in-one type rations are also excellent for these horses. Deworming should be performed at least every 8 weeks, particularly if the horses have any exposure to other horses through common pastures or dry lots.

Elevated respiratory rates are observed in many horses with Cushing's disease. Causes may include chronic or intercurrent pulmonary disease (e.g. pneumonia, chronic obstructive pulmonary disease) that may or may not be specifi-

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cally associated with the Cushing's disease. Pneumonia should be handled aggressively, especially fungal pneumonia.

Detailed attention to animal husbandry and feeding practices and careful management of secondary complications are the least expensive and the most successful approaches to "treatment" of the horse with Cushing's disease. Horses have been successfully treated for as long as ten years with this method. Prognosis can be predicted to a limited extent based on the degree of hyperglycemia. Affected horses with normal glucose levels have an excellent long-term prognosis with appropriate management. Horses that are mildly hyperglycemic also generally have a good prognosis but can be more susceptible to concurrent infectious problems. Horses that are

moderately to severely hyperglycemic have a poor to guarded prognosis. They are the most appropriate cases to consider for therapeutic intervention.

The most important consideration in long-term maintenance of the Cushing's horse continues to be excellent management with regular deworming, nutrition, hoof care, and rapid response to any potential infections (e.g. wounds, sole abscesses, pneumonia). Horses with normal glucose levels often do well with only careful stable management. There is a recently FDA-approved medication for use in horses with Cushing's disease called Prascend®. If you are suspicious your horse may have this condition, talk to your veterinarian and see if it is right for your horse.

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ABOUT: Tom Hutchins DVM

Silverado Equine Performance, LLC was established in 2013. With 15 years experience in the performance horse industry, Dr. Hutchins' goal was to create a practice that fulfilled a special niche: provide the absolute best care available for each horse with all necessary diagnostic tools available for your equine athlete and be able to bring it to you in the comfort of your farm or stable. The scope of the practice is primarily lameness and sports medicine although other services are available upon request. This allows Dr. Hutchins to stay on the leading edge of performance medicine. It takes a team to keep a finely tuned athlete going, so when necessary, recommendations and referrals to the most qualified professionals for a given condition are made.



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