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EQUINE CUSHING'S DISEASE

EAST LANSING, Mich. --Horses are living longer than ever before, and with that rise in longevity has come an increase in the reported cases of Cushing's disease.

Equine Cushing's disease is caused by a tumor in the pituitary gland, which is responsible for the production and regulation of hormones. While the tumor itself is benign, the cells within the tumor produce excess hormones, creating an imbalance in the horse's body. The cause of the tumor itself is not known.

Cushing's disease is most common in horses over 20 years old, although the youngest documented case was found in a seven year old. It is equally prevalent in both genders and is found more often in Morgans than in any other breed. Ponies may also have a slightly higher predisposition.

The most notable symptom of Cushing's disease is the growth of a long, shaggy, coat of hair. This irregularly long and sometimes wavy hair often persists throughout summer months and is a critical signal that a horse may have Cushing's disease.

Other symptoms are caused by the hormonal imbalance in the adrenal gland. These symptoms include excessive drinking and urination, laminitis, a tendency for recurring infections in the hoof (foot abscesses), and a loss of muscle mass, especially along the topline and rump.

Dr. Hal Schott, a veterinarian and associate professor of large-animal clinical sciences at Michigan State University, is no stranger to Cushing's disease. Last year, he completed the Michigan Cushing's Project, a study designed to better understand Cushing's disease and the effectiveness of treatment.

"Realistically," said Schott, "with Cushing's disease, it's almost a visual diagnosis. When you see the animal, you're highly suspicious it has the disease." After identifying the visual symptoms, clinical testing can confirm the diagnosis.

"Generally, we consider the overnight dexa-methasone suppression test to be the gold standard test," said Schott.

The dexamethasone suppression test, or DST, requires that the horse gives a small sample of blood, then be administered cortisone, and a follow-up blood sample be taken the next day. The blood samples are then compared to determine the horse's response to excess cortisone. Once a horse has been diagnosed with Cushing's disease, there are treatments available that may improve the horse's condition, and in some cases, even return it to normal health.

Pergolide or cyproheptadine are the two most commonly used drugs that have shown positive results in combating the effects of Cushing's disease. However, until the Michigan Cushing's Project, no study had ever been conducted to determine which drug was most effective.

"We just did a simple project and asked the question, 'Which drug is better for treating this condition?'" said Schott.

From late 1996 until 2001, Schott and his colleagues at Michigan State University tracked and compared the progress of horses treated with pergolide, those treated with cyproheptadine, and those with no treatment at all.

"We found clearly that pergolide was a much better treatment," Schott reported. "It seems to help them quite dramatically. It improves their clinical signs, as well as reverses or makes their dexamethasone tests return to normal in some, but not all cases."

Treating a horse with Cushing's disease does, however, come with a cost. An average dose of pergolide for an average horse costs approximately $60 a month. It also requires owners to administer the drug daily and schedule regular appointments with their veterinarian for further follow-up blood work. If treatment is abandoned, symptoms can reappear as quickly as two or three weeks later.

Once on treatment, however, the prognosis is optimistic for horses with Cushing's disease. According to Schott, more than 75 percent of horses are expected to improve in response to pergolide treatment.

After treatment has begun, Schott reported that, "Many people have commented that their horses seem three to five years younger." Because most horses with Cushing's disease are already at an advanced age, three to five years can be a significant amount of time to prolong their lives and continue to enjoy their companionship.

"The goal is to make these horses as healthy as possible and as comfortable as possible in their retirement ages," Schott said.

If owners suspect their horse may have Cushing's disease, they should continue to watch for symptoms, especially the long shaggy hair, and schedule an appointment with their veterinarian to explain their concerns.

Reporting symptoms and using the DST test are the most effective ways to diagnose the disease early and maintain the horse's quality of life.
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