Anhidrosis in Horses

The Educated Horseman: Disease Series

Increased heat and humidity across the Southeast has caused a rise in an equine condition known as anhidrosis. This condition impairs the horse's ability to regulate its body temperature by sweating. A normal horse loses approximately 65 to 70 percent of its body heat from evaporation of sweat, while only 15 to 25 percent of heat is lost through respiration; therefore, the inability to sweat in hot, humid climates can become a serious health threat.

The prevalence of anhidrosis is higher in the Gulf South; however, there have been reports of horses suffering from this condition in the desert states of the Southwest. Research suggests that inadequate temperature acclimation may be a factor that predisposes horses to the condition. However, whether imported or native, horses raised in hot, humid conditions, are both at risk for developing anhidrosis. One study suggests that horses moved from Midwest and western states into the South are two times more likely to develop the condition. Horses of all breeds, sex, age and color are equally at risk for developing this condition.

The most common indication that a horse is developing anhidrosis is its inability to cool down after exercise. When a horse with anhidrosis is exposed to conditions that would cause a normal horse to sweat, the affected horse will have small, patchy areas of sweat under the mane, saddle and in the flank, along with increased respiration rate and temperature.

As the condition progresses, the horse may develop dry flaky skin, hair loss, loss of appetite, fatigue and decreased water intake. If the horse is forced to exercise in hot environments, respiration, temperature, heart rate and blood pressure can rise to dangerous levels and, in extreme situations, may cause death. Although most veterinarians will diagnose anhidrosis as a result of clinical symptoms, a more quantitative test is available.

Currently, no research finds a treatment that will reverse this condition. The only known successful therapy is moving the affected horse to a cooler climate. A horse affected with this condition must be managed carefully to prevent overheating:

- Provide climate-controlled areas during the day (fans, misters, AC).
- Provide access to cool drinking water.
- Reduce concentrate (grain) feed.
- Reduce exercise during extreme conditions.
- Provide electrolytes.

Many supplements have been used in an attempt to control the symptoms of anhidrosis, but these have varied results. Additional methods of treatment and prevention are currently under investigation. Until a more reliable treatment option becomes available, make sure to manage a horse with anhidrosis carefully.

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