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Brazos Valley Equine Hospitals

Equine Herpes Myeloencephalopathy

Equine Herpes Myeloencephalopathy (EHM) outbreaks occur across the country annually. The most concerning outbreaks for the horse industry are those occuring during shows, as there is the potential for them to become widespread. Outbreaks lead to show cancellations, farm quarantines, and potential closure of veterinary hospitals.

Five different Equine Herpes Viruses (EHV) are found in domestic horses. EHV infection is ubiquitous in the equine population and most horses are infected early in life. Following infection with an EHV, the virus can essentially hide from the immune system in lymphoid or neurologic tissues; horses are then said to have a "latent infection", which can become reactivated during times of stress. EHV-1 is the primary cause of the EHM and can infect any age, breed, or gender.

Infection develops following exposure to a horse shedding the virus, although infection can occur by reactivation of latent virus in rare cases. While EHV also causes respiratory disease, there is typically minimal respiratory signs in horses with EHM. Neurologic disease appears suddenly and is rapidly progressive reaching its peak intensity in 2-3 days. The degree of neurologic signs depends on the degree of damage to the spinal cord. In horses infected with EHM, clinical signs may include fever, nasal discharge, incoordination, hind end weakness, recumbency/ paralysis, lethargy, urine dribbling, decreased tail tone, and/or head tilt.

Horses that show a fever and/ or any of these signs should be isolated and examined on the farm. Definitive diagnosis of EHM may only be possible with post-mortem examination. A presumptive diagnosis can be made when EHV-1 is isolated from nasal secretions or blood in combination with appropriate clinical signs. Once exposed and infected with EHV-1 the virus may be detected in blood and nasal swabs for 21 and 14 days, respectively. Horses can develop clinical signs as early as one day after exposure to the virus, but clinical signs can be delayed up to 10 days after exposure. Nasal shedding typically peaks within 24 to 48 hours of EHV-1 infection and quickly becomes undetectable.

Horse-to-horse transmission of the herpes viruses is significant because infected horses will excrete and aerosolize the virus in respiratory secretions. However, contaminated equipment can be a source of infection and people can transmit the virus on their hands or clothes. All horses with clinical signs are expected to be contagious, although horses not showing clinical signs can shed EHV-1. The virus is estimated to be viable for up to seven days in the environment but may remain viable for a maximum of 30 days, and is easily killed in the environment by most disinfectants.

Preventing exposure is the greatest value, as vaccination is not fully protective. Boostering well vaccinated horses during an outbreak is not helpful. Vaccinations 14 days prior to exposure is not likely to be harmful and may help limit the spread of the disease. Having horses examined for health certificates prior to a show will help limit outbreaks.

Cases of EHM should be isolated for > 28 days, with strict hygiene and biosecurity measures implemented. Exposed horse must be isolated to control spread of the virus. Personnel should wear protective clothing and adhere strictly to hand sanitation. Rectal temperatures should be taken on every exposed case twice daily.

Any horse with a fever should be tested by both nasal swab and whole blood PCR. In the absence of clinical disease, the risk of exposure decreases with time.

EHM is preventable with common sense. A veterinarian should be consulted early with any suspected cases. Horses that develop EHM have a chance of survival if treated correctly. For more information you can review a detailed document at **bveh.com.**

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