What is Equine Herpes Myeloencephalopathy

Equine Herpes Myeloencephalopathy (EHM) is a neurologic disease of horses linked to the Equine Herpes Virus (EHV-1). EHV-1 in horses can cause respiratory disease, abortion, and neonatal death. Neurological signs appear as a result of damage to blood vessels in the brain and spinal cord.

EHV-1 is easily spread and usually has an incubation period between 2-10 days. Respiratory shedding of the virus generally occurs for 7-10 days, but may continue longer in infected horses. For this reason, a 21-day isolation period of confirmed positive EHM cases is suggested.

Clinical Signs

Clinical signs of EHM in horses may include:
- Fever of 102°F or greater. Fever most often comes before neurologic signs
- nasal discharge
- lack of coordination
- hindquarter weakness
- leaning or resting against a fence or wall to maintain balance
- lethargy
- urine dribbling
- head tilt
- diminished tail tone
- penile paralysis

Consult your veterinarian if your horse exhibits any of these signs.

Emergence of EHM

There has been an increase in the number of EHV-1 cases and several outbreaks of EHM at large horse events and facilities in recent years. The increasing numbers of EHM outbreaks support the designation of EHM as an “emerging disease.”

How the EHM is Spread

Horse-to-horse contact, short distance aerosol transmission and contaminated hands, equipment, tack and feed all have a role in disease transmission. Direct and indirect contacts are most important for transmission since the size of the virus limits capacity for airborne transmission to distances of less than 30 feet.

Horses exposed to EHV-1 and incubating the virus can shed virus via nasal secretions. Horses with severe clinical signs consistent with the neurological form of EHV-1 most often have a large viral load in nasal secretions and present the greatest risk for disease spread.

Diagnosis of EHM

Contact your private veterinarian if your horse develops EHM-compatible clinical signs. Nasal swabs and whole blood collected from the symptomatic horse are essential for detection of horses positive for the virus. Recent advancements in EHV-1 diagnostic testing enable laboratories to differentiate the non-neuropathic and the neuropathic strains of EHV-1. Both strains may cause Neurologic signs, but the neuropathic strain is more likely to do so. Diagnostics for detection of antibodies to EHV-1 indicate past exposure to EHV-1 and not current infection.

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Vaccination
Currently, there is no USDA licensed EHV-1 vaccine with a label claim for protection against the neurological strain of the EHV-1 or EHM.

Prevention
Practice and enforcement of biosecurity measures on equine premises can help prevent the spread of EHV-1. Consistent biosecurity practices must be taken to reduce the risk of disease spread.

Key to disease control is the immediate separation and isolation of identified suspect cases. Ideally, a person caring for a sick horse should not also work with healthy horses. If this is impractical, always handle healthy horses first and sick horses last.

People can easily transmit this virus on their hands and clothing. Individuals should wash their hands thoroughly with soap and hot water between contacts with horses to reduce risks of disease spread. Wearing disposable gloves and changing them between horses or use of hand sanitizers between horse contacts are other alternatives. When handling any sick horses suspected to have EHV-1 infection, it is imperative that halters, bridles, and other tack not be shared with stablemates. Feed and water buckets should also be dedicated to sick horses and not be shared within a stable.

Disinfection
Herpes viruses can be treated by many disinfectants. A 1:10 dilution of bleach in water is effective against EHV-1. All areas must be thoroughly cleaned of dirt, plants, and animal waste before the use of these products. Use soaps or detergents to clean the area before applying a disinfectant.

In barn environments, where organic material (dirt, plants, animal waste, etc.) cannot be completely rid of, it is suggested to use a disinfectant that retains activity in the presence of organic matter. Phenolics, such as 1 Stroke Environ® or SynPhenol-3®, and accelerated hydrogen peroxide products, such as Accel®, have this property. Be sure to follow manufacturers’ recommendations and label instructions for all disinfectants.

Additional Resources


American Assoc. of Equine Practitioners: http://www.aaep.org/info/equine-herpesvirus-rhinopneumonitis

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