



Vesicular Stomatitis

Vesicular Stomatitis (VS) is a contagious disease that afflicts horses, livestock, wildlife and even humans. The disease is caused by a virus which although rarely life threatening, can have significant financial impact on the horse industry. Vesicular Stomatitis is a reportable disease; in a suspect case, state and federal animal health authorities will be contacted by your veterinarian.

When a case of vesicular stomatitis is confirmed, your state veterinarian's office will quarantine the affected farm or ranch. In an effort to minimize risk of spread of the disease, horses will be confined to that location for a specified period, usually for 30 days following resolution of the last case on that property. Equestrian event organizers may also choose to cancel horse shows, rodeos, and other equestrian activities in the surrounding area. Imports and exports of horses may also be restricted.

Clinical Signs & Diagnosis

When vesicular stomatitis occurs in horses, blister-like lesions develop on the tongue, mouth lining, nose and lips. In some cases, lesions also develop on the coronary bands, or on the udder or sheath. When VS is suspected, an exact diagnosis should be obtained by testing the blood for virus-specific antibodies. Testing is necessary to rule out the possibility that the lesions are caused by photosensitivity (sunburn), irritating feeds or weeds, or toxicity from non-steroidal anti-inflammatory medications like phenylbutazone. VS should not be confused with foot and mouth disease which does not affect horses, and which was eradicated from the U.S.A. in 1929.

The incubation period for vesicular stomatitis – meaning the time from exposure until the first signs appear – ranges from two to eight days.

A fever may develop initially as blisters form on the tongue, gums, or coronary bands. One of the most obvious clinical signs is drooling or frothing at the mouth. This occurs following rupture of the blisters that create painful ulcers in the mouth. The surface of the tongue may slough. Excessive salivation is often mistaken as a result of a dental problem just as a horse that is not eating well may be suspected as having colic. Weight loss may be a secondary effect, as a horse with mouth ulcers finds it too painful to eat.

If lesions form around the coronary band, inflammation within the foot may result in lameness or laminitis. In severe (but rare) cases, the lesions on the coronary band may cause the hoof to slough.

The disease generally runs its course within two weeks, although it may take as long as two months for the sores to entirely heal. Until the ulcers are completely healed, the horse remains infective and the potential remains for disease to spread.

Treatment

While a horse is suffering from vesicular stomatitis, feeding soft feeds may reduce mouth discomfort. Anti-inflammatory medications as supportive care help to minimize swelling and pain so a horse will continue to eat and drink. Secondary bacterial infection of ulcerated areas is another concern. If fever, swelling, inflammation or pus develops around the sores, treatment with antibiotics may be required. However, there is little an owner or veterinarian can do but wait for healing to occur and take appropriate precautions to minimize the risk of spread of the disease to other horses and livestock.

Disease Transmission

There are still many questions regarding how vesicular stomatitis is transmitted. The disease is distributed only in North and South America, with a greater incidence in warmer regions.

Due to the seasonal occurrence of VS during summer through early fall, it is believed that insects such as biting flies and gnats transmit the virus. Stable and houseflies are other possible but unlikely vectors. VS also seems to be passed from horse to horse by contact with saliva or fluid from ruptured blisters. Physical contact between animals, or contact with buckets, equipment, housing, trailers, feed, bedding or other items used by an infected horse can provide a ready means of spread.

Prevention

By observing the following guidelines you can help prevent the occurrence of VS:

- Healthy horses are more disease resistant so provide good nutrition, regular exercise, deworming and routine vaccinations.
- Isolate new horses for at least 21 days before introducing them into the herd or stable.
- Observe your horse closely. Immediately isolate any horse that shows signs of infection.
- Implement an effective insect control program. Keep stabling areas clean and dry. Remove waste and eliminate potential breeding grounds (standing water, muddy areas) for insect vectors.
- Use individual rather than communal feeders and equipment.
- Clean and disinfect feed bunks, waterers, horse trailers and other equipment regularly.
- Be sure that your farrier and other equine professionals who come into direct contact with your animals exercise due care so as not to spread the disease from one horse or facility to the next.
- On farms where VS has been confirmed, handle healthy animals first, ill animals last. Handlers should then shower, change clothing and disinfect equipment to prevent exposing others.

- Anyone handling infected horses should implement proper biosafety methods, including wearing latex gloves.
- If you are sponsoring an event during an outbreak, require a current health certificate on every horse entering the venue.

Vesicular Stomatitis In Humans

Humans can contract vesicular stomatitis from infected horses. Therefore, it is important to follow proper biosafety measures. Precautions should include wearing latex gloves and avoiding direct contact with the horse's saliva or blister fluids. Special care should be taken to keep mouth, eyes and any open wounds from being exposed to infection.

Vesicular stomatitis in humans tends to cause severe flu-like symptoms such as headache, fever, muscle aches, and extreme fatigue. People rarely develop blisters in their mouths. However, if you experience influenza-like symptoms after working with a VS infected horse, contact your physician immediately.

Vaccines And Disinfectants

Vaccines have been developed to help combat vesicular stomatitis. However, there is considerable debate over their efficacy in preventing or reducing the severity of an outbreak. The period of protection is thought to be fairly limited and once vaccinated, a horse will test positive thereby incurring travel restrictions. VS may recur once the antibodies within the horse's system wane. Contact your state veterinarian for information on the availability of vaccines and any permits that may be required.

Sunlight and heat are known to quickly destroy the virus that causes vesicular stomatitis. Commercial disinfectants such as chlorine bleach (0.645%), Wescodyne (4 %), Roccal (1:200), Septisol (1:50), and cresylic acids (1 %) are also effective.

Working With Your Veterinarian

By working closely with your equine veterinarian, you can develop strategies to reduce the likelihood of a vesicular stomatitis outbreak, or to minimize the effects should one occur.

Veterinarians and owners who suspect that an animal has vesicular stomatitis should immediately contact state or federal animal health authorities.

For more information, contact: USDA, APHIS, Veterinary Services, Emergency Programs, 4700 River Road, Unit 41, Riverdale, MD 20737-1231, (301) 734-8073.

This information is provided courtesy of the American Association of Equine Practitioners, 4075 Iron Works Parkway, Lexington, KY 40511, (859) 233-0147.