Rabies

Definition

Rabies is a fatal viral disease of mammals. Its occurrence is relatively rare in horses (as compared to other infectious neurologic diseases). The Centers for Disease Control and Prevention report that equids account for less than 1% of all rabies cases in the USA; the total number of equine cases has ranged from 42-82 annually. www.**cdc**.gov/ncidod/dvrd/**rabies**/

Clinical Signs

Highly variable

Disease is rapidly progressive with the interval from onset of symptoms to death approximately 5-7 days. Unvaccinated horses usually demonstrate a shorter interval.

Insidious onset is the hallmark of equine rabies with reported initial clinical signs of lameness, colic, dysuria, priapism in addition to overt neurologic disease.

Physical signs may include:

- Fever
- Anorexia
- Blindness
- Dysphagia
- Hyperesthesia—manifested as self-mutilation
- Muscle twitching
- Lameness
- Paresis and/or ataxia
- Incontinence
- Paralysis--ascending
- Sudden death

Behavioral signs:

- Dumb form: depression/stupor
- Furious form: mania—these horses are extremely dangerous

Rabies should be included as a rule-out in all neurologic patients.

Incubation

Typically 2-6 weeks, although longer incubations have been reported.

Transmission

Exposure occurs primarily through a bite wound from an infected animal.

Diagnostic Testing

Saliva and other body tissues become virus positive at the time of clinical signs but there remains no reliable ante-mortem diagnostic test for rabies.

Personnel involved in the necropsy of a rabies suspect should have had rabies prophylaxis.

Note: Post-mortem sample collection requires appropriate precautions to avoid exposure.
Click here for necropsy procedures.

Submit fresh tissue (1/2 brain)—Click here for guidelines on brain removal.
Do NOT freeze brain tissue samples; ship bagged sample on cold packs.

It is appropriate to fix the remaining brain for eventual histological examination.

Note: Some veterinary diagnostic laboratories will test for rabies on necropsy only when specifically requested to do so. Be sure to request rabies testing when submitting the carcass of any neurologic case for necropsy.

Shedding Time of Organism Past Resolution of Clinical Signs

N/A

Environmental Persistence

Rabies virus is sensitive to drying, ultraviolet radiation, and detergent. Rabies is inactivated and removed by standard decontamination practices which includes washing instruments and environment with common disinfectant or quarternary compounds. Instruments should be autoclaved for sterilization.

Specific Control Measures

Rabies-suspect cases

- Minimize number of personnel in contact.
- When possible, limit personnel to those having undergone pre-exposure immunoprophylaxis (vaccination).
- Gloves and protective eyewear must be worn by all in-contact personnel.
- Establish record of all individuals having handled horse beginning 48 hours prior to onset of clinical signs.

Prevention

Vaccination should be administered to horses annually after an initial series**.**

Previously vaccinated horses: Post-exposure prophylaxis should be performed promptly once exposure is suspected and the animal observed for 3 to 6 months.

Post-exposure vaccination of previously unvaccinated horses is of dubious value.

Feeding and/or housing of wild animals (as pets) is discouraged.

Risk factors:

- Unvaccinated status
- Pasture housing
- Contact with enzootic species that carry rabies virus
- Residing in, or recent travel to, areas of high rabies activity in wildlife

Release of Animals from Isolation

N/A

Biosecurity Issues for Receiving Animals

N/A

Zoonotic Potential

Yes. Identification of potential rabies-suspect cases is essential and should be promptly reported to public health authorities.

Link to *A Review of Equine Zoonotic Diseases: Risks in Veterinary Medicine (J.S. Weese)*:
http://www.aaep.org/proceedings/02proceedings/910102000362.pdf