

Equine viral Rhinopneumonitis (Equine viral abortion)

Equine rhinopneumonitis or Equine viral abortion is caused by infection with equine herpes virus EHV (mostly type 1) which causes rhinopneumonitis, abortion, neonatal mortality and occasionally encephalomyelitis in horses and donkeys.

Etiology

EHV type 1 subtype 1: cause abortion and subtype 2 cause respiratory signs

EHV type 4: outbreak infection

EHV type 2

EHV type 3

EHV type 1 and 4 are more common

Epidemiology

- EHV1 occurs world-wide, in all countries with significant horse industries. Equine rhinopneumonitis is quite common in Australia and New Zealand although abortions are less commonly seen.
- It has never been recorded in Iraq.
- Transmission between horses and by mediate contagion.
- Lifelong latency of infection with putative periodic reactivation of virus shedding.
- Respiratory disease occurs as sporadic disease and as outbreaks.
- Younger animals more commonly affected by disease.
- Immunity following vaccination or infection is apparently short lived

Source of infection

nasal discharge & aborted fetus are the main source of infection ,the virus can survive outside animal body about 14-45 days

Transmission

- EHV infection spreads mainly by the respiratory route, although infection by ingestion and transmission by fomites is also thought to occur.
- Aborted fetuses contain large amounts of virus and may be responsible for the introduction of the abortogenic strain to previously uninfected premises.
- Previously infected adult horses may undergo subsequent subclinical infection, although it is unclear whether this is due to re-infection or re-activation of a latent infection.

Clinical Signs

1. Congestion and clear nasal discharge
2. Mild to server ataxia or paresis (slight of incomplete paralysis) of hind quarters
3. Fever for two to three days
4. Rhinitis with coughing

5. Abortion after three to 12 weeks of exposure and most commonly in the eighth to 11th month of gestation.
6. Septicemia and viremia in neonatal foals.
7. Nervous signs in adult horses or paralysis syndrome there is ataxia, paresis, recumbence, and death ,this syndrome occur in outbreak
8. The main complications secondary bacterial invasion result in pneumonia

Diagnosis

- Clinical signs
- Necropsy and histology
Sever pulmonary congestion ,focal hepatic necrosis ,intraneuclear inclusion bodies and pneumonia.
- Viral isolation from aborted fetus using tissue culture and immunofloracent tech.
- Serology. By using direct florescent Ab test and ELISA
- Hematology: Leukopenia

Differential diagnosis: Other infectious causes of abortion in horses include:

1. Equine influenza
2. Step. pyogenes equi
3. Contagious equine metritis
4. Brucella abortus
5. Leptospirosis
6. Coital exanthema
7. Equine viral arteritis
8. Fungal infections (e.g. Mucor spp., Aspergillus spp.)

Treatment

There is no specific treatment but administration of antibiotic for secondary bacterial invasion and treatment should be considered.

Control

- Isolation of all infected animals.
- Aborted fetus should be disposed
- Vaccination for suckling foals and mares by using: killed vaccine or live attenuated vaccine. (hamster adapted and cell culture adapted).