



Equine Parvovirus-Hepatitis Virus (EqPV-H)

Disease Name: Equine Parvovirus-Hepatitis Virus (EqPV-H)

This disease was formerly known as Theiler's disease (liver disease)

Disease Type: Viral

Transmission: Biologic transmission: Transmission occurs through the administration of parvovirus positive (PCR positive) biologics including tetanus antitoxin (TAT), botulinum antitoxin, *Streptococcus equi* antiserum, pregnant mare's serum, and equine plasma.

Non-biologic transmission: Healthy horses that are in contact with affected horses sometimes develop this disease. The exact transmission mechanisms are not known but, the seasonal incidence in the fall and early spring (March to October, when the insects are active) suggests a vector-borne mode of transmission. The virus has also been found to be shed in nasal secretions and feces but transmission by these routes has not been documented.

Frequency: Young horses: 2-4%

Older horses: 13%

Incubation Period: The incubation period can range from 4 to 13 weeks

Carrier Status: Horses with acute or subclinical EqPV-H may become silent chronic carriers. The percentage of horses that become chronic carriers is unknown, however, these horses may serve as reservoirs for infection to other horses. The mechanism and likelihood of transmission from a chronic carrier to a healthy horse is unknown.

Clinical Signs:

- Acute fulminant hepatitis:
 - Clinical signs are consistent with the horse's severity of liver disease.
 - Neurologic signs: head pressing, staggering, behavior changes, blindness
 - Lethargy
 - Anorexia
 - Jaundice
 - Discolored urine
 - Colic
 - Recumbency
 - Death (usually within 72 hours)
- Subclinical hepatitis:

- No clinical signs of liver disease
- Mild to moderately elevated liver enzymes
- Healthy horse (chronic carrier):
 - No clinical signs of liver disease
 - No abnormalities in liver enzymes

Diagnosis: Horses clinically affected by hepatitis viruses will have increased liver enzymes and abnormal liver function tests. PCR testing for EqPV-H can be performed on liver biopsies, serum, plasma, or EDTA whole blood at the Animal Health Diagnostic Center at Cornell.

Treatment: The treatment of equine hepatitis relies primarily on supportive care measures. Referral to an intensive care facility is usually needed.

Prognosis: The morbidity rate in EqPV-H infected horses is low (considering that many horses may not show clinical signs) but the mortality rate in symptomatic horses is described as being between 50-90%.

Prevention:

There is no vaccine for Equine Parvovirus-Hepatitis Virus.

Biologic transmission: At this time, the only means of preventing biologically transmitted clinical cases of viral (EqPV-H) hepatitis is to administer biologics that are confirmed free of hepatitis viruses. Unnecessary administration of biologics should be avoided, which can be achieved through appropriate vaccination of horses for tetanus to reduce the need for antitoxin administration during injury or surgical procedures.

Non-biologic transmission: The route of transmission to horses that have not received biologic products is not known.

Biosecurity: Clinically affected horses with acute fulminant disease may have a higher viremia and should be isolated from other horses. Specific biosecurity guidelines have not been created yet as routes of transmission of non-biologic cases are currently being researched. See EDCC's biosecurity information.

<https://www.equinediseasecc.org/biosecurity>

Risk to Humans and Other Animals: Currently there is no known risk to humans or other species