Leptospirosis - Lepto

Leptospirosis is a disease found worldwide that affects many species, including horses and people. The source of the bacteria is the urine of wild animals, including mice, squirrels, fox, skunks, opossums, and deer. Other domestic species such as cattle, dogs, and pigs can also be a source of infection.

Leptospires are bacteria. They are quite different from other bacteria in that they are spiral-shaped and are motile. As a result of their shape, they are classified as spirochetes. Other spirochetes of medical importance are Treponema and Borrelia. Treponema pallidum causes syphilis in humans. Borrelia burgdorferi is the bacteria that causes Lyme disease.

Horses are infected when bacteria enter through the skin or mucus membranes of the eye or mouth by contact with blood, urine, or tissues from infected animals, either direct contact or contamination of feed or water.

The spirochetes invade mucous membranes and/or damaged skin and migrate to various organs in the body. Infections can cause

- Abortion
- renal (kidney) failure
- ocular (eye) problems
- stillborn or sick foals

The kidney infections and neonatal disease caused by leptospirosis are not common. However, the eye problems of recurrent uveitis or moon blindness are suspected to be more frequent and can become a chronic problem and can result in blindness. The renal infections can occur in any age horse. The disease in foals causes weak foals that might be term or premature. They might have fevers, clinical evidence of infection, and/or hematuria (bloody urine).

There is not an approved vaccine for the horse against leptospirosis. Maintaining as hygienic an environment as possible, and isolating mares with confirmed leptospiral abortions, might prevent spread of the disease.

The disease is not common and varies in distribution depending on environmental conditions.

Antibiotics can be effective in treatment of some forms of leptospirosis. Newborn foals with leptospirosis have been treated successfully with penicillin intravenously. Older foals and adult horses with renal disease have also been effectively treated with antibiotics. The ocular disease is not likely a result of direct infection in the eye, therefore antibiotics might not be effective. Treatment of uveitis usually consists of topical, symptomatic therapy that will vary depending on ocular examination by your veterinarian.

Unfortunately, mares infected with leptospirosis usually abort without premonitory signs. Mares which abort often have very high titers to one or more leptospira serovars. These mares often shed the organism in urine, which is a possible source of infection for other individuals, as is the aborted fetus and placenta (mares walk up and sniff the contaminated aborted fetus or placental fluids and become infected through the mucous membranes).

Leptospirosis is a zoonotic disease, which means it can affect many types of animals, including humans. Human exposure to uterine fluids and to urine should be minimized when leptospiral infection has been identified.