

Equine Recurrent Uveitis (ERU)

Equine Recurrent Uveitis (ERU), an immune-mediated disease, is one of the most common causes of blindness in horses. ERU is commonly referred to as "moon blindness" and is believed to have several possible causes including bacteria, parasites, viruses, trauma and immune system disorders. ERU is characterized by increasingly frequent bouts of irritation and inflammation in the eye (uveitis).

Uveitis can be extremely painful. Common signs associated with uveitis are small pupils, discharge from the eyes, squinting, red eyes and conjunctiva, swelling around the eye, and sensitivity to light. Other signs may include corneal edema (cloudy cornea), loss of balance, abnormal gait or tripping, rubbing the eye, or even pus inside the eye.

The most common bacteria associated with uveitis is *Leptospira*. Horses with Leptospirosis may have acquired it from drinking water or eating feed contaminated with urine from another infected animal. Leptosporosis can also be spread from animal to animal by human contact. Horses with a *Leptospira* infection may also have a fever, become anorexic and have abnormal milk production in addition to eye related problems.

Onchocera Cerviculis is a common parasite associated with ERU. This *Culicoides* fly, also known as the "biting midge" or "no-see-um," is believed to be the primary means of transmission. Horses affected by *Culicoides* may show sores on the abdominal midline and along the base of the mane or withers. ERU occurs when the horse mounts an immune response to the parasite and the eye has enough of the parasite antigen (substance from the parasite that the immune system attacks) that it becomes irritated.

Eye trauma is another important cause of equine uveitis. Any blunt or penetrating injury, eye surgery, corneal ulcers, or infection may cause trauma to the eye and subsequent inflammatory irritation. Equine herpes and influenza viruses have been linked to uveitis in the horse. Allergies have also been implicated in cases of uveitis.

Topical atropine will dilate the eye and reduce pain associated with the constricted pupil. Topical antibiotic ointments will help fight or prevent any bacterial infections. Topical steroids may be indicated to reduce inflammation but the eye should be examined by a veterinarian prior to use of steroid. Non-steroidal anti-inflammatories such as Banamine can also help reduce inflammation. Wearing fly masks and keeping the horse out of direct sunlight will help relieve irritations from light, dust or insects.

When uveitis occurs frequently in a horse it becomes a case of ERU. One episode of uveitis may have cleared up but the same or another cause will stimulate a recurrence. These additional bouts of uveitis may become more frequent and less responsive to treatment. It is important to treat these horses aggressively when episodes first occur in order to have the best chance to avoid loss of vision. If your horse begins showing signs of uveitis, it is important to contact your regular veterinarian for an eye examination.

Contact Brandon Equine Medical Center at 813-643-7177 or email lkuebelbeck@brandonequine.com with any questions regarding this topic.