Equine Recurrent Uveitis (ERU) FAQs

UTCVM OPHTHALMOLOGY

What is uveitis?
Uveitis means inflammation inside the eye. Causes of uveitis include trauma, infection, and immune-mediated disease. Some signs of uveitis include cloudiness, swelling, tearing, squinting, and redness.

Obtaining measurements of the intraocular pressure helps determine if a patient has uveitis (associated with low pressure) or glaucoma (associated with high pressure).

What is Equine Recurrent Uveitis (ERU)?
Equine Recurrent Uveitis (ERU), also called moon blindness, is diagnosed when a horse has two or more separate episodes of uveitis in the same eye. ERU is an immune-mediated form of uveitis influenced by both genetic and environmental factors. In some horses the immune reaction is preceded by a leptospirosis infection. ERU can affect one eye or both eyes.

Uveitis can also affect the back of the eye. A thorough examination of the fundus (retina and optic nerve) can be performed with a panophthalmoscope, as demonstrated here.

What are long term complications of ERU?
ERU can cause devastating complications; more than 50% of horses affected with ERU go blind from the disease eventually. Blindness occurs from secondary scarring, cataracts, retinal degeneration or detachment, or secondary glaucoma. Some eyes also shrink due to chronic inflammation. Secondary corneal mineral deposits can lead to corneal ulcerations that are challenging to heal and painful.

There is also a specific type of ERU called insidious uveitis that leads to persistent, low grade inflammation without signs of pain (no squinting and minimal to no tearing). Unfortunately, insidious uveitis can still lead to blindness as well.

How is ERU treated?
Treatment is focused on reducing the severity and number of episodes of inflammation and decreasing pain. Topical anti-inflammatories, topical mydriatics (atropine), as well as injectable or oral steroids or NSAIDs (banamine or bute) are critical treatments.

Some horses have flare-ups of uveitis following stressors such as transportation, deworming, or vaccination and may benefit from "pre-treatment" with a systemic and/or topical anti-inflammatory during these times. A UV protective fly mask is also recommended as UV light may exacerbate immune-mediated uveitis.

What is the expected prognosis?
Early intervention is associated with the best prognosis. Long-term prognosis is guarded, but some horses can retain vision for a long time (many years) with aggressive treatment and careful monitoring.

What are the surgical options for ERU?
Horses with confirmed ERU that have little to no active inflammation and are still visual are appropriate candidates for surgical placement of a cyclosporine (CsA) implant. Approximately 75% of horses respond to a CsA implant, meaning the inflammatory episodes decrease in number and severity. CsA implantation requires general anesthesia and approximately 1 month of layup.

For horses that do not have the option of a CsA implant, an injection of an antibiotic into the vitreous (back of the eye) under sedation may be an option and has been shown to be beneficial for many horses. Risks of injections into the vitreous include bleeding, toxicity of the drug to the retina, retinal detachments, and worsening of cataracts. Long term success rates are not yet available.

How do I know if my horse's eye worsens and what do I do?
Signs of a flare-up may be different for every horse but usually include squinting, ***increased*** cloudiness, or tearing. Please call your veterinary professional if you are concerned your horse is having a flare-up of ERU.

What else should I look out for?
The long-term use of oral anti-inflammatories (NSAIDs) such as bute or banamine are essential for treatment but can lead to secondary complications including colic from gastrointestinal ulcers or kidney disease. The use of oral steroids can lead to a higher risk of laminitis. If your horse is on oral medications monitor for these risks and notify your veterinarian immediately with concerns.

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