Treatment

Treatment for uveitis in general depends upon the underlying cause as well as the severity of the symptoms. In most cases, the eye is treated with topical anti-inflammatories and a pupil-dilating agent to decrease the pain and inflammation. Oral anti-inflammatories such as Banamine® (Flunixin meglumine) are also instituted, and in select cases bodily injections of steroids may be necessary. While these treatments are helpful in subsiding the inflammation and pain - they’re not ideal for long-term use. If infectious disease is suspected to be the cause, laboratory tests should be performed followed by medical treatment if recommended.

If a horse responds favorably to medical therapy, Cyclosporine Implants may be an option for long-term management. This is the surgical implantation of a small Cyclosporine medicated disc that’s placed deep within the pink tissue surrounding the eye (sclera), it slowly releases medication over a period of several years. This medication modifies the reaction to the immune system and reduces inflammation.

ABOUT THE COLLEGE OF VETERINARY MEDICINE

Ranked third in the nation among colleges of veterinary medicine by U.S. News & World Report, NC State’s College of Veterinary Medicine is a driving force in veterinary innovation. From our leadership in understanding and defining the interconnections between animal and human health, to groundbreaking research in areas like equine health, and our commitment to training the next generation of veterinary health professionals, we are dedicated to advancing animal and human health from the cellular level through entire ecosystems.

NC STATE Veterinary Hospital
Equine Recurrent Uveitis (ERU)
Moon Blindness; Periodic Ophthalmia

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What is Uveitis?

The term “uveitis” comes from the word “uvea,” which refers to the inner tissues of the eye, including the iris (colored part of the eye). The “-itis” part of “uveitis” means inflammation, so uveitis is a name for a group of diseases that cause inflammation inside of the eye.

Equine recurrent uveitis (ERU), or “moon blindness,” is the most common cause of blindness in horses. ERU is caused by an overreaction of the horse’s immune system, which causes inflammation in the eye. Typically this occurs after an initial ocular injury or infection. Exposure to a bacteria, virus, parasite or other irritant will trigger the immune system to turn on and the inflammation the body produces starts a cycle of damage. Leptospirosis, a bacterial infection caused by coming in contact with Leptospira contaminated water, is a known trigger for ERU.

**SYMPTOMS**

Uveitas can be divided into two varieties based on symptoms. The first type being a more gradual progression, which is difficult for owners to spot until their horse begins to show symptoms of vision loss. This type involves low grade, consistent inflammation that causes damage over time and leads to vision loss- but is not painful for the horse. Owners become concerned when their horse begins running into things, spooking more often, or having trouble navigating the ground.

This gradual progression type of ERU is more common in Appaloosa horses.

The second type of uveitis is more obvious sooner to owners. The horse’s eye(s) produce tears, a mucous discharge, and the normally white/pink tissue around the eye turns bright red. The horse may also squint or rub their eyes, and the eyelid could become puffy or swollen. These symptoms may vary, and appear seasonally, at times of stress, or after vaccinations and deworming. The periods of discomfort occur when inflammation peaks, and are followed by periods of comfort when the inflammation subsides or is gone.

**DIAGNOSIS**

Diagnosis of ERU is done by a complete ophthalmic examination, we recommend a full examination by a board-certified veterinary ophthalmologist. The exam includes utilizing specialized equipment to look at a microscopic view of all parts of the eye, a fluorescein dye test to evaluate the health of the cornea, tonometry to check for glaucoma, and if possible pupil dilation and a retinal exam. Sometimes an ocular ultrasound is necessary to view the back chamber of eye if the pupil will not dilate well, or a cataract is present. The ultrasound can offer more information about any damage present in the back of the eye, such as a retinal detachment, allowing a more accurate prognosis for vision.

Mature cataract induced by ERU; horses that lose vision from cataracts caused by ERU are poor candidates for cataract surgery.

Corneal disease caused by steroid use and iridal damage due to ERU; horses that develop corneal disease from ERU pose further medical treatment challenges.

The 6mm diameter non-dissolvable cyclosporine implant developed by Dr. Brian Gilger’s Ocular Immunology, Toxicology and Drug Delivery Laboratory.