FOX VALLEY EQUINE PRACTICE

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Equine Recurrent Uveitis

What is ERU?
ERU, also known as moon blindness, iridocyclitis, or periodic ophthalmia is a chronic immune-mediated disease characterized by recurrent inflammation within a portion of the eye called the uvea.

What are the clinical signs of ERU?
During acute episodes of inflammation, the eye will be painful, and you may observe periocular edema (eyelid swelling), blepharospasm (involuntary blinking of the eyelids), epiphora (tearing), corneal edema (a bluish color to the front of the eye) , and most commonly miosis (a small pupil). In other cases, the inflammation is more insidious and can go unnoticed. Chronic cases may exhibit cataract formation, dyscoria (an abnormal shaped pupil), or a host of other intra-ocular abnormalities.

What causes ERU?
ERU involves immune dysregulation occurring after an initial episode of acute uveitis. Not all horses will develop ERU after a single bout of acute uveitis however they do become more at risk. The exact pathogenesis of ERU is very complex and not completely understood. There appears to be a variety of things that can trigger ERU. Leptospirosis is one of the more commonly suspected infectious triggers. Furthermore, a genetic component involving the major histocompatibility complex (a segment of DNA important for immune function) has been linked to an increased susceptibility to ERU in Appaloosas, Warmbloods, and draft breeds.

How is ERU treated?
Common treatment during an acute episode includes systemic anti-inflammatories (i.e. banamine), topical corticosteroids (i.e. neo/poly/dex), and topical mydriatics (i.e. atropine). If Leptospirosis is suspected to play a role, also treat for that. There are more invasive treatment options available as well that have reports of producing more favorable outcomes in certain cases. One of these treatments is a cyclosporine implant, a sustained release immunomodulatory drug that aids in decreasing frequency and severity of episodes as well as long-term vision loss. The other therapy is injection of the antibiotic, gentamicin, into the eye which has been anecdotally reported to minimize episodes of ERU and maintain ocular quiescence.

What is the expected outcome/prognosis?
Common ocular sequelae of horses with ERU include permanent changes to the cornea, iris, and/or lens. Glaucoma may develop in some cases secondary to the inflammation. The response to treatment is variable. While many horses respond very well to traditional treatment, about 50% of horses lose vision over time. In certain cases, cyclosporine implantation or intravitreal gentamicin injection may be pursued to improve a horse's chances of long term quiescence and maintenance of vision.