Ultrasound Findings in Horses With Severe Eyelid Swelling: Nine Cases

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Severe unilateral blepharedema is often suspected to be trauma related; however, ultrasonography may show lacrimal gland inflammation (dacryoadenitis) or eyelid abscessation. Such non-traumatic causes are an important differential diagnosis. They were frequently found in this study and had an excellent prognosis with appropriate treatment. Authors' address: Rood and Riddle Equine Hospital, PO Box 12070, Lexington, Kentucky 40580-2070; e-mail: jreimer@roodandriddle.com. © 2009 AAEP.

1. Introduction
Visual inspection of the globe is not often possible in horses with severe blepharedema. Ultrasonography provides a means to evaluate the globe, eyelid, and periorbital region. This paper describes the sonographic findings, diagnosis, treatment, and outcome for horses with severe blepharedema. Dacryoadenitis as a previously undescribed cause of acute blepharedema is discussed.

2. Materials and Methods
Case records of nine horses with severe blepharedema that presented for ultrasonographic evaluation of the globe and periorbital region were reviewed. Ultrasonography was performed as described previously and included evaluation of the eyelids and periorbital region.

3. Results
All cases were unilateral and acute. Ultrasonography showed profound enlargement of the lacrimal gland (dacryoadenitis), eyelid abscessation, fractures, or globe collapse with fractures. Dacryoadenitis and eyelid abscessation accounted for >50% of cases and responded quickly to medical treatment. One case of traumatic origin sustained loss of the affected eye.

4. Discussion
Although trauma is often suspected in horses with blepharedema, infections or inflammation, in particular dacryoadenitis, were found to be equally common. The lacrimal gland is located beneath the orbital rim and is normally difficult to image. The enlarged gland was visible arising from beneath the supraorbital rim as a well-delineated mass of mixed echogenicity.