DETECTION OF LEPTOSPIRA INTERROGANS IN FIXED EQUINE EYES AFFECTED WITH END-STAGE EQUINE RECURRENT UVEITIS

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ABSTRACT

Equine recurrent uveitis (ERU) is the most frequent cause of blindness in horses worldwide. *Leptospira* has been implicated as an etiologic agent in some cases of ERU. The objective of this study was to determine the presence of *Leptospira* antigen and DNA in fixed equine ocular tissues affected with end-stage ERU. Sections of eyes from 30 horses were obtained. Controls included (1) ten normal equine eyes and (2) ten equine eyes with a non-recurrent form of uveitis. The experimental group consisted of 10 eyes diagnosed with ERU. Sections were subjected to immunohistochemical staining with rabbit anti-*Leptospira* polyclonal antibodies. Real-time PCR analysis was completed on extracted DNA. Two out of 10 test samples were positive for *Leptospira* antigen. Zero of 20 controls were positive for *Leptospira* antigen. All test samples and controls were negative for *Leptospira* DNA. *Leptospira* was detected at a lower frequency than that previously reported for fresh ERU affected aqueous humor and vitreous samples.