Effects of Ophthalmic Disease on the Acute Phase Proteins Fibrinogen and Serum Amyloid A

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Horses are frequently presented for emergent ocular disease. Before general anesthesia for a vision-saving surgical procedure, the systemic health of the patient must be evaluated. In patients with ocular disease, elevations in the acute phase proteins fibrinogen and serum amyloid A are more likely to be associated with a non-ophthalmic inflammatory focus. Authors’ addresses: Department of Veterinary Clinical Medicine, College of Veterinary Medicine, University of Illinois Urbana-Champaign, Urbana, Illinois 61802 (Labelle, Hamor, MacNeill, Lascola, Breaux); and Bluegrass Veterinary Vision, Louisville, Kentucky 40067 (Tolar); e-mail: amberlabelledvm@yahoo.com. © 2010 AAEP.

1. Introduction
The purpose of this study was to investigate the relationship between ocular disease and the serum acute phase proteins fibrinogen and serum amyloid A (SAA).

2. Methods
Serum samples were obtained from 19 adult horses with corneal disease and no systemic disease, 19 adult horses with uveitis and no systemic disease, 9 adult horses with no evidence of ocular or systemic disease (negative controls), and 10 adult horses with systemic inflammatory disease and no evidence of ocular disease (positive controls). Samples were assayed for the acute phase proteins fibrinogen and SAA.

3. Results
Serum fibrinogen and SAA levels were not statistically significantly different between the negative control horses and horses with corneal disease or uveitis. Fibrinogen and serum amyloid A were significantly elevated in positive control horses (p < 0.001) compared with horses with corneal disease or uveitis and negative control horses.

4. Discussion
Ophthalmic disease does not cause serum elevations in the acute phase proteins fibrinogen and SAA. When the clinician is confronted with a patient with ocular disease and elevated serum fibrinogen or SSA, a non-ocular inflammatory focus should be suspected.