Effect of Detomidine Sedation on Equine Intraocular Pressure

Dana L. Holve, DVM

Detomidine sedation causes a decrease in intraocular pressure (IOP) in horses and is therefore a safe alternative when performing ophthalmological procedures in the horse when an increase in IOP is a concern. Author’s address: Eye Care for Animals, 3025 Edinger Avenue, Tustin, California 92780; e-mail: danaholve@gmail.com. © 2010 AAEP.

1. Introduction
Standing sedation and analgesia for ophthalmologic procedures is important in the horse. It is well known that certain medications can have a profound influence on intraocular pressure (IOP). This can negatively impact a compromised globe and can result in serious clinical consequences in the horse, such as globe perforation and glaucoma. Detomidine hydrochloride is commonly used to acquire adequate sedation and analgesia in the standing horse. The clinical effect of detomidine on equine IOP was evaluated using rebound and applanation tonometry.

2. Materials and Methods
Fifteen horses were used to compare the effects of detomidine sedation on IOP. IOPs were obtained using rebound tonometry at baseline and 10 min after IV administration of detomidine 0.02 mg/kg; 7 of the 15 horses were measured at an extended time point (20 min after sedation).

3. Results
Intravascular detomidine sedation caused a decrease in equine IOP. No statistically significant change in IOP was found between the 10 and 20 min post-sedation measurements.

4. Discussion
Detomidine causes a decrease in equine IOP. Given the many advantages of standing sedation and analgesia, detomidine is a safe alternative when performing ophthalmological procedures in the horse when increased IOP is a concern.

References
2. Trim CM, Colbern GT, Martin CL. Effect of xylazine and ketamine on intraocular pressure in horses. The Veterinary Record 1985;442–443.