Visual outcome after corneal transplantation for corneal perforation and iris prolapse in 37 horses - DTU Orbit (11/02/2019)

Visual outcome after corneal transplantation for corneal perforation and iris prolapse in 37 horses: 1998-2010

Reasons for performing study
We wanted to investigate the visual outcome of horses presented with iris prolapse and treated with corneal transplantation.

Objective
To evaluate the visual outcome of horses with iris prolapse treated with penetrating keratoplasty alone and penetrating keratoplasty in combination with overlying conjunctival or amniotic membrane grafting.

Methods
A retrospective medical records study of horses presented to the University of Florida Veterinary Medical Center for iris prolapse and treated with penetrating keratoplasty in the period of 1998-2010. Data collected from the medical records included signalment, clinical descriptions of ocular lesions, treatments, and therapeutic outcome.

Results
Iris prolapses in this study were caused by corneal ulcers with keratomalacia (n = 37). All horses were treated medically for infection, hyperproteinase activity and iridocyclitis, and then surgically treated with either penetrating keratoplasty alone (n = 9) or penetrating keratoplasty with either a conjunctival pedicle flap (n = 22), amniotic membrane transplant (n = 5) or amnion membrane and conjunctival pedicle flap (n = 1). The eyes were visual postoperatively in a majority of the cases (n = 24; 64.9%). Limited vision was noted in 6 eyes (16.2%), 3 eyes became phthisical (8.1%) and 4 globes were enucleated (10.8%). Graft rejection manifested as some degree of donor corneal graft opacification in all cases. Anterior synechiae were present in 48.6% of the eyes. Wound dehiscence and aqueous humour leakage were also common as post operative problems.

Conclusion
Penetrating keratoplasty alone or in combination with an overlying graft of conjunctiva or amniotic membrane can achieve a successful visual outcome in a high percentage of horses with iris prolapse.

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