Case Study: Fuzz – April 18th

- 33 year old Quarter Horse
- Had been battling corneal ulcer for several weeks before seeing us
- No foreign debris found
- Culture and cytology were taken.
- Started on topical antibiotics, anti-fungals, Atropine, serum, and Banamine
Fuzz – April 22nd

• Eye getting difficult to medicate
• Opted to place subpalpebral lavage system (SPL) to deliver liquid medications SIX TIMES DAILY.
Fuzz – Subpalpebral Lavage System
Fuzz – April 28th

- Ulcer holding its own, if not slightly bigger
- Neovascularization (new vessels) starting
- Diagnosed horse with Cushings Disease and started him on Pergolide.
- All other medications were kept the same.
Fuzz – May 4th

• Finally healing!
• Vessels have reached the ulcerated area.
• Small area of ulceration still present.
• All medications were continued, unchanged.
Fuzz – May 23rd

- The ulcer has fully healed.
- Some scarring present (white areas).
- Lavage was removed and Fuzz could finally go out!
- Success was due to his owners’ dedication!
Superficial Corneal Ulcer Review

- Banamine or Equioxx – Full dose initially, then taper as needed
- Topical antibiotic (eg. NPB)
- Atropine
- +/- Serum
- +/- Anti-fungal medication
- Stall rest
- Fly mask on to protect from light and prevent rubbing
- Wipe all discharge from the horse’s face.
- Confirm it is fully healed before stopping treatment
- NO STEROIDS!
How to apply eye ointment
Equine Recurrent Uveitis

Also known as:
• Periodic ophthalmia
• Moon Blindness
• Iridocyclitis
• ERU

Most common cause of blindness!

Primary ERU is immune mediated.

Secondary ERU is due to a primary trauma.

Linked to Leptospirosis – submit titers
Equine Recurrent Uveitis

• Clinical signs include squinting, tearing, miotic pupil, corneal edema
• Most common in Appaloosas
• Must rule out a corneal ulcer!
• Irreversible blindness due to retinal detachment, cataract formation or severe inflammation in the retina.
ERU Treatment

- Goals are to preserve vision, decrease pain and prevent reoccurrence.
- Must be aggressive & prompt.
- Some horses require lifelong therapy!
- Prognosis is usually poor to preserve vision, but disease can be controlled.
ERU Treatment

- Steroids to control inflammation (NeoPolyDexamethasone, Prednisolone acetate)
- Atropine
- +/- Non-steroidal topical medications (if ulcer is present)
- +/- Cyclosporine A
- Banamine, Equioxx, Bute, Aspirin
- Treatment should be continued for several weeks after resolution of clinical signs.
- Flymask on at all times for light protection (Guardian)
ERU – Treatment

- Subconjunctival corticosteroids
- Sustained-release intravitreal cyclosporine A implants
- Vitrectomy – surgery to remove vitreous humor from eye, less beneficial in Appaloosas, post-operative cataracts & retinal detachment are complications
Cataracts

- Opacities of the lens
- Most often congenital in foals
- Can form secondary to trauma & uveitis
- Cause varying degrees of blindness as they mature
- Surgical removal (phacoemulsification) recommended for foals less than 6 months of age without uveitis
- Surgical results in adults with ERU is usually poor.
Cataracts

Foal with cataract

Phacoemulsification
Glaucoma

- Increased intraocular pressure (IOP)
- Secondary to trauma & uveitis
- Corneal edema, mydriatic pupil, striations, IOP > 30mmHg, buphthalmos, generally non-painful, blindness, lens luxation, optic nerve atrophy
Measuring Eye Pressure

- Tonometry
- Normal IOP 23 to 30mmHg
- Will be elevated with glaucoma
- Usually low with uveitis
Glaucoma - Treatment

- Goal is to reduce IOP & preserve vision
- Treat Glaucoma: Timolol, Dorzolamide (topicals that reduce IOP)
- Treat uveitis: NP Dexamethasone
- Cyclocryotherapy & Laser cyclophotocoagulation: reduces aqueous production by partial ciliary ablation
- Enucleation = surgical removal of the eye.
Traumatic Eyelid Lacerations

• Must be corrected accurately to prevent scarring and secondary corneal drying and ulceration
• Very vascular & heal well
• Never cut the flap off!
• Protect the lid from self-trauma with a hard cup mask.
• Bucket hooks!
Scarring Post Lid Repair
Preserve the Eyelid!
Squamous Cell Carcinoma

• Can affect the cornea, sclera, third eyelid or eyelids
• Seen more often in white-faced horses
• Treat with surgical debulking & chemotherapy
Preventing SCC

- Use Guardian flymasks for best sun protection.
- Use hypoallergenic sunscreen.
- Eye tattooing
- Keep out of bright sunlight.
Interesting Case – Ocular Habronemiasis

Inflamed Third Eyelid from Ocular Habronemiasis

Inspissated Sulfer Granules from the Parasites
Interesting Case - Entropion in a Foal
Interesting Case – Retrobulbar Mass

- Appointment to perform dentistry on patient, noticed that one eye was more prominent than the other.
- All ocular findings were within normal limits.
- Ultrasound of the eye could visualize the mass.
- CT showed margins of mass.
- Mass (and eye) were removed.
Eye Ultrasound
Management of Blind Horses

• Keep them in familiar surroundings.
• House with a companion animal (horse, mini, donkey, goat, etc) with a bell.
• Do not change routine.
• Many can still be ridden if the bond between horse and rider is strong.