Equine Subpalpebral Lavage (SPL) Installation

Supplies Needed

MILA Subpalpebral lavage system with 5’ tubing
Detomidine
Proparacaine
Carbocaine
Betadine solution
Sterile saline
Latex gloves
Porous tape (tear pieces for butterflies and thin strips for mane braids, etc)
Catheter injection cap
2 5 gauge needles
1 ml TB syringes
+/--- twitch

Preparation

- Sedation (eg. detomidine 0.01-0.02 mg/kg IV)
- Make 3-4 thin braids in mane and secure each with tape.
- Auriculopalpebral nerve block (Inject 2-3 cc carbocaine subcutaneously via 25 gauge needle over the caudal zygomatic arch)
- Supraorbital nerve block (Inject 2-3 cc carbocaine into the supraorbital fossa)
- Clip and prepare skin with dilute betadine solution (“weak tea” concentration)
- Topical anesthetic (proparacaine) sprayed into superior fornix (0.5 ml; repeat once)
Installation Procedure

- Insert plastic eyelid lifter from kit completely into superior fornix of eyelid to use as a safety guide to pass needle.
- Pass the SPL needle with attached tubing into the eyelid lifter and through the skin at the highest point in the superior fornix at the level of the middle of the dorsal orbital rim.
- Pull SPL needle with attached tubing until footplate is seated flush with the conjunctiva in the fornix.
- Disconnect needle from tubing.
- NOTE FOR THE NEXT TWO STEPS: Be sure to leave some laxity in tubing between butterflies to prevent overstretching/breakage when horse stretches neck.
- Place tape butterfly at the exit point of tubing and suture to skin with 2-0 PDS on a straight needle (make sure tubing is dry and use porous tape to prevent slippage).
  - Make a mark with a Sharpie at the point the tubing exits the butterfly to monitor for slippage.
  - Use of the green “retainer” in the MILA kit is optional and should not replace the butterfly at this location.
- Place 2nd tape butterfly at poll.
- Pass tubing between ears.
- Weave tubing loosely through braids in mane.
- Insert one of the IV catheters provided into the open end of tubing with stylus tip withdrawn slightly into catheter to prevent perforation of tubing.
- Screw an injection cap onto the catheter end.
- Tape catheter and tubing to a tongue depressor and tape tongue depressor to a braid in the mane.
- Check function of the SPL:
  - Draw up 0.05---0.1 ml ophthalmic medication with 25---gauge needle on a TB syringe.
  - Inject ophthalmic medication through injection cap.
  - Disconnect needle from syringe, fill syringe with air and reattach needle.
  - Slowly inject air into tubing until all medication passes into the eye (see horse blink and fluid in inferior fornix). Usually takes 1---2 ml air.
- Wait 5 minutes between administration of drugs.
Subpalpebral Lavage System Use and Maintenance

- Check daily to make sure tubing is not slipping through the tape butterfly into the fornix (inner pocket) of the eyelid.
  - Typically you will see increased squinting, tearing +/- superior corneal ulceration if tubing slips.
  - If tubing is slipping through the tape, you can pull it back up and pinch the tape on the tubing to re-secure it. The tape butterfly should be replaced by your veterinarian ASAP.

- Stand on side of horse with the eye problem to administer medications.
  - Draw up 0.05--0.1 ml ophthalmic medication with 25-gauge needle on a TB syringe.
  - Inject ophthalmic medication through injection cap.
  - Disconnect needle from syringe, fill syringe with air and reattach needle.
  - Slowly inject air into tubing until all medication passes into the eye (see horse blink and usually fluid drips from eye). Usually takes 1--2 ml air to push all medication through.

- Wait 5 minutes between administration of drugs.

- Once daily, inject 0.5 cc of weak betadine solution (provided) into tubing. Follow with 1cc air until tubing is cleared of fluid.
- Change injection cap at least once weekly.
- SPL system can remain in place for 2---6 weeks or more, as long as it is not damaged and is kept clean.

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