

GENERAL CONSIDERATIONS - EYE SURGERY

GENERAL CONSIDERATIONS:

Surgical interventions:

- **Periocular:** Orbit, eyelids, lacrimal apparatus, conjunctiva and 3rd eyelid.
- **Ocular:** Cornea, iris, lens or other deeper structures.

Anaesthetic techniques:

- Topical anaesthesia for minor surgical intervention.
- Sedation with Eye blocks (AP, Peterson, Retrobulbar etc.) in large animals.
- Sedation with general anaesthesia in small animals.

Preparation of patient:

- Clipping of eyelid hair or lashes with hair clipping scissors after application of vaseline to avoid dropping of hair into eyes.
- Thorough cleaning of eyes and surroundings with NSS.
- Instillation of antibiotic ointment in the cul-de-sac.
- Use mydriatics if cataract surgery.
- Use 20% Mannitol (6 ml/kg, IV at time of induction of anaesthesia) if surgery (removal of lens or intraocular tumor) is for relief of glaucoma.
- Restrain the patient in lateral recumbency with eye to be operated uppermost.

Instruments and sutures:

- Routine general surgical instruments for periocular surgery.
- Special ophthalmic instruments for ocular surgery e.g. eye speculum, Strabismus scissors, lacrimal canula, iris hook, corneal scissors, small dressing forceps, small tissue forceps, lens loop, lens spoon, irrigating bulb, air injection canula, keratome etc.
- Use medium sized non absorbable synthetic sutures varying between 4/0 to 6/0 and smaller depending upon the animal.

Ocular therapy:

- Depends upon the nature and type of ocular affection.
- Eye collyria is used to flush conjunctival sac to remove secretions, dust, dirt etc. Commonly used medicaments are NSS, 2% boric acid, rose water or ZAB solution (zinc sulfate 4g, boric acid 2g and rose water 200ml).
- Astringents (1% silver nitrate and 2% alum) are used to cause precipitation of proteins.
- Cauterizing agents (1-2% silver nitrate) is used to denude and freshen the borders of corneal ulcers and for better penetration of the antibiotics as well as

to increase the blood supply for better healing of ulcerative wounds of cornea.

- Atropine sulfate is used to cause mydriasis whereas pilocarpine (1 to 4%) is used to constrict the pupil.
- Chloramphenicol, gentamicin, neomycin and sulfonamides are the antibiotics of choice for ocular therapy.
- Nystatin and amphotericin B are commonly used antifungal drugs to treat certain fungal affections of the eye.
- Corticosteroids are commonly used anti-inflammatory drugs.
- Methyl cellulose (0.5%) is used as artificial tears.