EXTIRPATION OF EYE BALL

Indications: Neoplastic growth of the eyeball and adjacent tissues, penetrating wounds of the eye associated with evacuation of ocular contents, irreparable injury and suppurative destruction of the eye.

Surgical Anatomy: Removal of eye ball along with muscles is known as extirpation of eye ball and is done by trans palpebral ablation technique. The eye ball is situated in the anterior part of the orbital cavity. It is protected in front by the upper and lower eye lids and bulbar and palpebral conjunctiva. The eye ball consists of three tunics namely the fibrous tunic (sclera and cornea), vascular tunic (choroid, ciliary body and iris) and the nervous tunics (retina, aqueous and vitreous humor, lens)

The movements of eye lids are governed by orbicularis oculi and levator palpabrae superioris muscles. The movement of the eye ball is controlled by four straight i.e. rectus dorsalis, rectus ventralis, rectus medialis and rectus lateralis, two oblique i.e. oblique dorsalis superior and oblique ventralis and a retractor oculi muscle.

Sensory innervation is by the branches of ophthalmic and maxillary nerves while motor innervation is by facial, oculomotor and sympathetic nerves.

Control and Anaesthesia: The animal is controlled in lateral recumbency with the affected side up. Sedation and auriculopalpebral and rertrobulbar nerve block.

Site: Between palpebral border of eye lid and orbital rim through the skin of both eye lids and about 0.5 cm from the palpebral border.

Surgical Procedure: The upper and lower eye lids are sutured together with continuous suture using cotton thread as suture material. Two ends of at least 15-20 cm long are left on either side for grasping and applying traction during the operative procedure. An incision completely encircling both the eye lids are made approximately 0.5 cm away from the palpebral borders. The incision is extended around the entire circumference of the lid margins between the orbital rim and eye ball by blunt dissection, taking care that conjunctiva is not punctured. If, any hemorrhage is encountered during dissection it is controlled either by ligation or with artery forceps. Conjunctiva from the lid back to its attachment to the orbit is separated leaving its

attachment to the border of the lids. All the muscles of the eye attached with the orbital rim are separated by blunt dissection and then excised with scissors. Once the eye ball is lifted from its base the optic cord is isolated and optic vessels palpated. The whole optic cord along with optic vessels is grasped with the help of curved artery forceps and then trans fixation sutures are applied below the artery forceps covering the whole optic cord in order to control the hemorrhage. After applying transfixation sutures the eyeball is severed from its base, just above the artery forceps.

Once the eyeball is removed the hemorrhage in the cavity is controlled with the help of gauge piece soked in Tincture Benzoin, if any present. After controlling haemorrhage the blood clots from the cavity are removed and then cavity is packed with providone iodine soaked gauge piece leaving one end of the gauge out side the eye incision on the dependent part of the eye. The edges of the lids are sutured using simple interrupted sutures, leaving an opening towards the dependent side from were the gauge piece comes out. Following complete suturing, dressing with antibiotic ointment and bandaging is done.

Post Operative Care:

1. A pressure bandage should be applied for 24 hours, after the operation followed by daily or alternate day dressing depending upon the healing of the wound.
2. Course of parenteral and oral antibiotic for 5-7 days post operatively.
3. Parenteral analgesic for 2-3 days.
4. Removal of sutures 8-10 days after the operation or after the completion of healing.