

EXTIRPATION OF EYEBALL IN DOGS

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Four cases of dogs suffering from unilateral/ bilateral damage, irreparable injury and tumors of eyes were presented for treatment at different occasions. The dogs were examined clinically and also with the aid of different equipments including ultrasonography. These cases were diagnosed as loss of vision due to damage to the eyeball. In order to preventing the spreading of infection, it was decided to go for extirpation of eye ball as a remedial measure in all cases and surgery was done under general anaesthesia with post operative measures.

Keywords: Dog, Eye ball, Extirpation, Wound.

Removal of eye ball is the most commonly performed surgical procedure for irreversibly blind and painful eyes in primary care and referral practice. Enucleation and blindness are tolerated well by dogs and cats. Unilateral enucleation is generally practiced in dogs and cats. It may also be recommended for ocular diseases resulting in irreversible ocular pain and blindness, such as trauma or severe corneal perforation (Ledbetter and Gilger, 2013). However, bilateral enucleation should be recommended as an end stage solution for primary or secondary glaucoma that are not responsive to medical management (Plummer and Regnier, 2013; Spiess and Pot, 2013).

Case history and Observations

Four cases of dogs suffering from unilateral/ bilateral blindness with irreparable

injury of optic globe were presented to the Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry, OUAT, Bhubaneswar at different occasions. In all the cases, physical and clinical examinations with the aid of slit lamp, tonopen, fundus camera, both direct and indirect ophthalmoscopy along with ultrasonography were performed. Haematological parameters like TEC, TLC, DC and haemoglobin were examined. From the above said examinations, the dogs were diagnosed to be suffering from as blindness to trauma related causes (Table – 1). In two cases, there were pain on eyeball and in one case, it was looking ugly with spreading of tumour like growth (Fig.1) and in the fourth case, there was prolapse of the eye ball (Fig. 2). Hence it was decided to perform extirpation of eye ball in all the four cases.



Fig.1- Eyeball tumor in case No. 3



Fig.2- Proptosis in case No. 4

Table – 1. PATIENTS - DATA

Sl.No	Breed	Age	Gender	Body weight	Type of injury	Eye affected
1	German Spitz	7 years	Male	12 kg	Cornea and eye ball injury	Right eye
2	Doberman	8 years	Male	25 kg	Whole mass of eyeball	Right eye
3	Labrador retriever	3 years	Female	32 kg	Tumor on eye ball	Left eye
4	Pomeranian	4 years	Male	11 kg	Proptosis	Right eye

Surgical Treatment

Following routine preanaesthetic care, all the dogs were preanaesthetized with inj. Glycopyrrolate at the dose rate of 0.01 mg/kg body weight intramuscularly and inj. dexmedetomidine –at the dose rate of 5.0 mcg/kg body weight intravenously, inj. butorphanol at the dose rate of 0.2 mg/ kg body weight. Induction of anaesthesia was done using inj. Propofol at the dose rate of 4.0 mg/kg body weight. Anaesthesia was maintained using inhalation of 1.5 % isoflurane. Under standard operative procedure the site was prepared for surgery. The eyeballs were cleaned with povidone iodine. One curved needle with vicryl no. 2-0 suture was introduced at external canthus, simultaneously dragging the eye ball. The

suture was slipped down slowly towards the base of Tenon’s capsule and the knot was placed tightly in order to constrict the blood vessels supplying the eye ball. The eye ball was extirpated using scalpel blade and curved scissors above the stump. The site was flushed using normal saline mixed with povidone iodine. The gap was packed with sterile gauge after ligating the bleeding blood vessels. Tarsorrhaphy was done using trulon no 1-0. (Fig. 3) The dogs were administered with inj. ceftriaxone –at the dose rate of 25 mg/ Kg body weight, meloxicam –at the dose rate of 0.2 mg/kg body weight for seven days. The owners were advised to use E-collar. After two days of surgery, the sterile packed gauge was changed with liberal introduction of chloramphenicol ointment

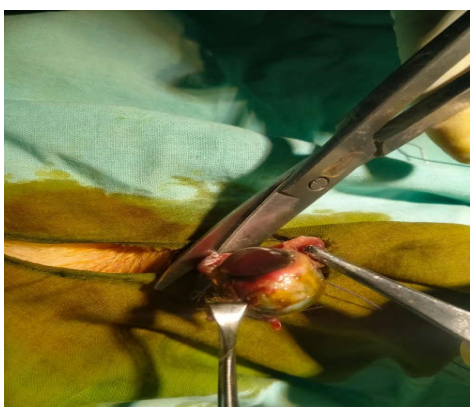


Fig.3- Removal of eye ball

Results and Discussion

After 10 days, the sutures were removed. There was no post operative complication in any of the cases. During three to four months of extirpation, the orbital fossa was seen filled with granulation tissue.

Enucleation seems a feasible, simple, inexpensive option of treatment for many types of severe ocular pathology, including tumorous eye as also recommended by Thakur *et al.*, 2018. Enucleation surgery offers a humane alternative to constant pain,

the threat of neoplasia metastases or euthanasia of an otherwise healthy animal. In the reported cases, there were irreparable eye ball injury, eyeball tumor and proptosis condition. The unilateral eye enucleation may be well accepted by the owner and even the stray dog may survive with one normal eye. However, bilateral eyes enucleation may not be acceptable by the owner but it should be totally contraindicated in stray dogs and cats as also narated by Shah, 2022. In the reported cases, unilateral extirpation was done. Enucleation surgery resulted in minimal postoperative complications and has the potential to resolve chronic pain, infection, and neoplastic diseases–In the reported cases no postoperative complication was seen.

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