

Surgical management of Proptosis in a Tom Cat

Vani G^{1*}, Saibaba M², Sudarshan Reddy K³

¹Assistant Professor, Dept of Sur & Radiology, C.V.Sc, Tirupati-517502, Andhra Pradesh, India

²Teaching Assistant, Dept of Sur & Radiology, C.V.Sc, Tirupati-517502, Andhra Pradesh, India

³Ph.D Scholar, Dept of Sur & Radiology, C.V.Sc, Tirupati-517502, Andhra Pradesh, India

*Corresponding Authors

Name: Vani G

Email: vanigaddam@gmail.com

Abstract: Tom cat presented with a history of protruded and completely damaged right eye ball that occurred due to trauma was successfully enucleated in transpalpebral approach without any complications.

Keywords: Cat, Proptosis, Transpalpebral approach

INTRODUCTION

Feline ocular emergencies include any ophthalmic condition that has rapidly developed as a result of trauma to the eye or peri ocular structures [1]. Trauma to the eye such as an infected scratch injury or puncture to the eye during a fight, or hitting of the eye with sharp object, tumors of eye, glaucoma are said to be most common causes for creation of a painful, blinded eye [2]. Common feline emergencies include Proptosis, lid lacerations, corneal ulcers, foreign bodies. The present paper discusses about the successful surgical management of chronic traumatic proptosis by enucleation technique in a non-descript cat.

CASE HISTORY AND CLINICAL FINDINGS

A one year old non-descript tom cat was presented to Dept of Teaching Vety Clinical Complex, C.V.Sc, with the history of protruded right eye ball along with discharge of sero sanguineous fluid from the affected eye. Anamnesis revealed that the cat had a traumatic injury during a fight with another cat 10 days back, that leads to protrusion of eye ball. Attempts made by the local veterinarian to replace the protruded eye back into the orbital cavity, was not successful because of severe bleeding. Meanwhile in the course of time, eyeball became desiccated and infected leading to necrotic changes. Close examination of the patient revealed completely damaged eye globe, as evinced by completely black eye with pus discharges from the base of the eyeball. As all the clinical parameters such as respiration, temperature, heart rate, Hb profile were within normal limits, it was planned for enucleation of eye under general anaesthesia.

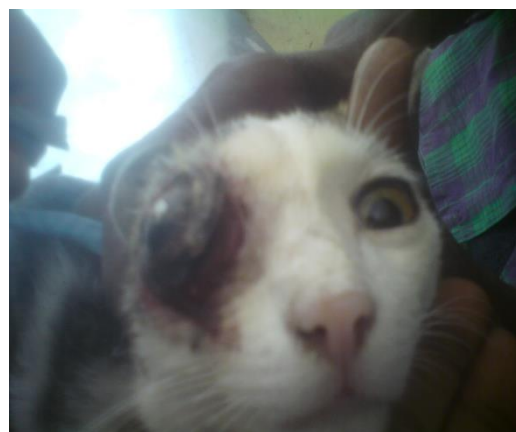


Fig-1: Proptosis of Rt eye ball - Tom cat

TREATMENT AND DISCUSSION

The cat was pre-anaesthetized with Atropine sulphate @0.04mg/kg bwt and sedated with Xylazine@1/kg bwt and maintained on Ketamine 10mg@ /kg bwt. The peri orbital area was prepared aseptically for the surgery. A lateral canthotomy was performed and eye lid margins posterior to the mucocutaneous junction was removed for better surgical exposure. The third eye lid and its gland were also removed. Bulbar conjunctival incision was made posterior to the limbus in 360° by blunt dissection. The extra ocular muscles were transected close to their insertion on the globe. The optic nerve and associated blood vessels were ligated with catgut no 1 avoiding excessive tension on optic chiasma. The eye globe was removed just above the ligature. The conjunctiva, subcutaneous tissue and the skin were closed in routine manner. Topical Betnosol and cebran eye drops were applied @ 2 drops QID for 7 days along with systemic antibiotic therapy. The cat had a good recovery without any post operative complications.

Enucleation is the most common orbital surgical procedure performed by veterinary ophthalmologists in patients with blind, painful eyes or patients with non respectable intraocular tumors [3]. The three most commonly described enucleation techniques are the subconjunctival, lateral and transpalpebral approaches. The main aim of sub conjunctival method is to preserve most of the soft tissue as much as possible to minimize subsequent orbital depression [4]. In lateral approach eye lids are excised partially for better operative exposure [5]. Transpalpebral approach involves removing the globe, nictitating membrane, and conjunctiva as one encased unit to prevent contact between the remaining ocular surface and orbital contents and suturing the palpebral fissure [6].

In present clinical case, trans palpebral method was performed as this method offers good visibility and access to the globe and extra ocular muscle. The optic nerve and ciliary blood vessels were tied with a ligature to reduce haemorrhage and to close the nerve sheath that directly communicates with CNS, preventing reflux of blood or leakage of CSF. Traction to the optic nerve was avoided as it may damage the contra lateral eye, which show fixed dilated pupil after surgery [7]. Transpalpebral method of enucleation is also indicated in patients with corneal ulcers and ocular infections [8].

REFERENCES

1. Elizabeth AG; Feline ocular Emergencies Clinical techniques in small animal practice, 2005; 20:135-141.
2. Gilger BC, Hamilton HL, Wilkie DA, van der Woerd A, McLaughlin SA, Whitley RD; Traumatic ocular proptoses in dogs and cats: 84 cases (1980-1993). *J. Am. Vet. Med Assoc.*, 1995; 206(8): 1186-1190.
3. Spiess BM; Diseases and surgery of the canine orbit. *In: Veterinary Ophthalmology*. Gelatt, K.N. (Ed.), 4th Edn. Blackwell Publishing, Ames, Iowa, 2007; 539-558.
4. Slatter DH; Orbit. *In: Fundamentals of Veterinary Ophthalmology*. Slatter, D.H. (Ed.), 3rd Edn. Saunders, Philadelphia, 2001; 496-530.
5. Bellhorn R; Enucleation technique: a lateral approach. *J. Am. Anim. Hosp. Assoc.*, 1979; 8:59-60.
6. Wolf ED; Enucleation of the globe. *In: Current Techniques in Small Animal Surgery*. Bojrab M.J. (Ed.), Lea & Febiger, Philadelphia, 1992; 119-123.
7. Mitchell N; Enucleation in companion animals. *Irish Vet. J.*, 2008; 61(2):108-114.
8. Singh J, Nath I, Settee S, Sahu T, Sahoo M, Pattnaik A; Enucleation for management of chronic case of traumatic proptosis in a cat. *Indian Journal of Canine Practice*, 2013; 5(1):154-156.