

Clinical Article

SURGICAL MANAGEMENT OF TRAUMATIC PROPTOSIS IN A KID

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Abstract: This paper reports surgical management of traumatic proptosis in a kid. On ophthalmic examination, symptoms like protrusion of the eyeball outside the orbit, periorbital swelling and menace and dazzle reflexes were absent. Hence, it was surgically managed by enucleation using auriculopalpebral nerve and retrobulbar block, ketamine and diazepam anesthesia. No postoperative complications were observed.

Keywords: traumatic proptosis auriculopalpebral nerve, retrobulbar block, enucleation.

Introduction

Ocular disease and injury remain a common occurrence in ruminants. In many instances, medical management is sufficient for the resolution and amelioration of clinical signs. In selected cases surgical intervention is required (Irby, 2004). Proptosis is displacement of the eye ball out of the orbit so that the eyelids are trapped behind the globe. Traumatic proptosis may follow trauma resulting in secondary orbital hemorrhage and swelling displace the globe further from the orbit (Anoop et al., 2016). In small ruminants injury to the eye may take place during browsing or fighting with fellow animal. This paper communicates surgical management of traumatic proptosis in a kid by enucleation of eye.

Case History and Observations

A 3 months old kid was presented to the clinics with a history of trauma to the left eye (OS) by butting of the fellow animal on three days back. On Clinical and ophthalmic examination revealed proptosis with periorbital tissue swelling, dryness of the contents of the left eye ball (Fig: 1), menace and dazzle reflexes were absent. The physiological parameters like temperature, respiratory and pulse rate were within the normal range. Medical treatment with Amoxicillin-Cloxacillin and Melonex for three days resulted in decreased periorbital swelling, but no improvement in the vision of the kid. Hence, enucleation of the left eye (OS) was planned.

Treatment and Discussion

The left eye was prepared for aseptic surgery using diluted povidone iodine solution at a concentration of 1:50, after complete fasting of the animal for six hours. The kid was placed on right lateral recumbency and anesthetized by using Ketamine and Diazepam @ 6mg/kg body weight and @ 0.2mg/kg body weight respectively through intravenous route. Local analgesia was achieved by auriculopalpebral nerve and retrobulbar block using 2% lignocaine hydrochloride. For easy maneuver during surgery applied a retention suture to the globe. The globe was dissected out from the periorbita by transecting medial, lateral canthal ligaments and extra ocular muscle insertions. After application of ligature using 1-0 chromic catgut, the optic nerve and associated blood vessels were transected near the globe and practiced tamponing. The eye lid margins were excised and performed permanent tarsorrhaphy by simple interrupted sutures using 1-0 black braided silk by leaving a small gap near the medial canthus for regular dressing. Postoperatively the kid was administered with Amoxicillin-Cloxacillin-500mg for 5 days and Meloxicam @ 0.2 mg/kg body weight for 3 days besides daily dressing of the wound. The wound healed without any postoperative complications and skin sutures were removed on 12th postoperative day (Fig:2) .

Auriculopalpebral nerve and retrobulbar nerve block was given satisfactory local analgesia by blockage of sensory and motor nerve supply of the orbit and periorbital tissue. Similar nerve blocks were practiced for enucleation in ruminants by Ali et.al, (2015). Mandell (2005) opined that the ocular emergencies can be treated with enucleation or replacement with tarsorrhaphy depending on the viability of the extra ocular tissues of the eye. Mitchell (2008) reported that enucleation is most often carried out in blind, painful eye which are unresponsive to the treatment. In accordance with the above authors enucleation of the eye was performed as it was irreparable, blind and unresponsive to the medical treatment. Ali et.al, (2015) reported complications of intraoperative hemorrhage for enucleation, but in the present case no such complication was observed as ligation was practiced for optic nerve and associated blood vessels along with tamponing of the orbit. Traumatic proptosis of globe is an ophthalmic emergency which requires proper medical and surgical management to prevent further complications.

Summary

Successful treatment of traumatic proptosis in a kid with enucleation resulted in satisfactory results.

References

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Fig 1. Photograph showing proptosis and periorbital swelling following trauma to the left eye (OS)



Fig 2. Photograph showing healing of the wound with puckering of the skin edges on 12th postoperative day