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Management of Third Eyelid Tumor by Chemo Reduction and Surgical Therapy in a Chippiparai Dog

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Abstract

Three years old female Chippiparai dog was reported with the history of having a reddish growth on the medial canthus of left eye for 20 days. Ophthalmic examination revealed soft friable reddish nodular lesion on the palpebral surface of the left third eyelid. Cytology of the biopsy sample revealed squamous cell carcinoma (SCC). In the presented case, Chemoreduction with topical Mitomycin C followed by surgical resection of the residual tumor with wide surgical margin resulted in successful management of the third eyelid tumor with no recurrence.

Key words : Squamous cell carcinoma, third eyelid tumor, third eyelid excision, mitomycin C

Third eyelid lies in the ventral medial orbit of dogs, cats and horses. It protects the cornea and acts like a windshield wiper to distribute pre-corneal tear film. It has T- shaped cartilage and a large sero-mucoid gland surrounding the base of the cartilage responsible for 25 % to 40% of tear production (Dennis, 2005).

Nictitans gland tumors are common and locally aggressive in dogs, cats and horses. Reported third eyelid gland tumors in dogs are adenoma (14.2 %), adenocarcinoma (85%), squamous cell carcinoma (0.8%), mastocytoma, papilloma, haemangioma, melanoma and lymphoma (Dees *et al.*, 2015). SCC may originate in the conjunctiva, limbus, third eyelid membrane, bulbar conjunctiva and eyelids. SCC is common in cats, cattle and horses rare in dogs (Karasawa *et al.,* 2008 and Aléssio *et al,* 2021).

Case History and Observations

The case was presented with the history of having a reddish growth on the medial canthus of left eye for 20 days. All physical parameters were normal. Ophthalmic examination revealed friable soft reddish nodular lesion on the palpebral surface of the left third eyelid with congested sclera and conjunctiva (Fig.1). All ocular reflexes were normal.

Diagnosis and Treatment

Haematology and serum biochemistry values were within the normal range. A presumptive diagnosis as SCC was made based on the gross appearance. Eye drops HPMC 1 drop thrice a day for 2weeks & Eye drops 0.04% Mitomycin C 1 drop twice a day for 2 weeks were administered. After two weeks, reduction in the size of the mass was noticed (Fig.2). Partial excision of the third eyelid with mass with margin of safety was opted. The animal was pre-medicated with Inj. Xylazine @ 1mg/kg B.wt IM, Inj. Tramadol @ 2 mg/kg B.wt IV. Induction and maintenance was done with Inj. Ketamine @ 5mg/kg B.wt IV and Inj. Diazepam @ 5mg/kg B.wt IV cocktail. Pre-operatively, antibiotic Inj. ceftriaxone at 10 mg/kg B.wt IV was given. Left eye was aseptically prepared. Curved mosquito forceps was placed below the mass with margin of safety (3mm normal third eyelid) and a second

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Fig. 1 Friable soft reddish nodular lesion on the palpebral surface of the left third eyelid

Fig. 2 Reduction of the size of the mass after two weeks of 0.04% Mitomycin C

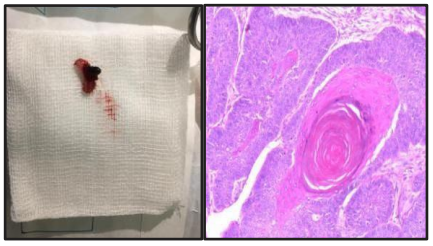

Fig. 3 partial excision of third eyelid with mass with margin of safety &malignant epithelial cells forming keratin pearls representing a squamous cell carcinoma at HPX 100x

Fig 4. Chemoreduction with topical MMC followed by partial excision of third eyelid with mass with margin of safety – 6th month follow up.

curved mosquito forceps was placed opposite to the first clamp. Monopolar electrocautery was used excision. Clamp was left for 2-3 minutes after nictitans removal. Bleeding was arrested through ligation with PGA 4-0. Histopathology of the excised mass revealed malignant epithelial cells forming keratin pearls representing a squamous cell carcinoma (Fig. 3). Postoperatively, chloramphenicol ointment was applied topically twice daily for 1 week. No recurrence was noticed for the 6 months of follow up (Fig. 4).

Discussion

Surgical removal of third eyelid is strictly reserved for tumors and severe injury. Surgical therapy of small nictitans tumors that involve only the margin, the free margin of the third eyelid alone may be removed (Dennis, 2005). SCC is an extremely aggressive tumor with low metastatic potential. Presumptive diagnosis can be made with FNAC and however histopathology is needed for confirmation. Topical Mitomycin C (MMC) is effective for the treatment of superficial or invasive SCC in the conjunctiva (Shields, 2002). Application of topical MMC usually results in complete regression of the tumor which are less than 4 mm in size and partial regression of tumors which are more than 4 mm in size (Shields *et al.,* 2005). In the presented case, Chemoreduction with topical Mitomycin C followed by surgical resection of the residual tumor with wide surgical margin resulted in successful management of the third eyelid tumor with no recurrence.

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References

Al**éssio,** B.C., Lordello, J.P., Gomes de Oliveira, G., Carmalac, S.M., Izabel de Souza, A., Poci Palumbo, M. I. and Babo-Terra, V. J. (2021). Squamous cell carcinoma in the third eyelid of a dog. *Acta Scientiae Veterinariae* **49 (Suppl 1):** 658.

Dees, D.D., Schobert, C.S., Dubielzig, R. and Timothy. (2015). Third eyelid gland neoplasm of dogs and cats: a retrospective histopathologic study of 145 cases. *Vet Ophthal.* **19 (2)**: 138-143.

Dennis, E. B. (2005). Removal of the third eyelid. *NAVC Clinician's brief* January **2005**: 47-49.

Karasawa, K., Matsuda, H. and Tanaka, A. (2008). Superficial keratectomy and topical mitomycin C as a therapy for a corneal squamous cell carcinoma in a dog. *JSAP* **49 (4)**: 208-210.

Shields, C.L., Naseripour, M. and Shields, J.A. (2002). Topical mitomycin C for extensive, recurrent conjunctival squamous cell carcinoma *Am J Ophthalmol* ***2002***; 133601-606.

Shields, C.L., Haken Demirci, Marr, B.P., Arman Masheyekki, Materin, M. and Shields, J. A. (2005). Chemoreduction with topical mitoycin C prior to resection of extensive squamous cell carcinoma of the conjunctiva. *Arch Ophthalmol.***123**: 109-113.

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Post-Partum Uterine Prolapse in a Goat: A Case Report

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Abstract

This study reports a case of uterine prolapse in a goat. The animal was brought to veterinary dispensary, Mangathotty, Idukki, Kerala with the complaint of prolapse of the uterus after kidding. The animal was recumbent. The everted uterus was cleaned by washing with potassium permanganate solution to remove the gross debris and placenta also removed. Sugar was applied to reduce the edema. Prolapsed uterus was then replaced back in to the pelvic cavity and retention suture was placed to prevent the recurrence. Antibiotics, anti-inflammatory and antihistamine were given.

Key words: Goat, Postp artum, Uterine prolapse

Uterine prolapse refers to the complete post-partum eversion of the gravid horn and it is very common in cow and sheep less common in goats and rare in mare (Nair *et al.*,2019). It is very common during the initial hours of parturition when the cervix is open and uterus lack tone (Hanie, 2006). The exact cause for the uterine prolapse is not completely known though several factors are found to be contributing to this condition. The condition was found frequently associated with dystocia and hypocalcemia which might result in increased straining and poor uterine tone (Youngquist, 1997). Hypocalcemia can result in myometrial stress and delays cervical involution. Regular contractions are essential for the expulsion of the placenta. Hypocalcemia can predispose to retention of placenta too. The weight of retained placenta as well as the constant pulling by the animal to get rid of retained placenta, increased estrogen content in the feed and conditions that increase abdominal pressure like tympany,can contribute to uterine prolapse (Wachida and

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