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Surgical management of recurrent squamous cell carcinoma in a cattle - A case report

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Abstract

A cross bred cow was presented with history of recurrent growth in the eye. On histological examination growth was diagnosed as squamous cell carcinoma and it was successfully managed by extirpation of the eye.

Keywords: extirpation, squamous cell carcinoma, cattle

Introduction

Bovine ocular squamous cell carcinoma is one of the common neoplasms of the eyelids and the eye ball of cattle [4]. Squamous cell carcinoma (SCC) alone accounted for 80.3% of all diagnoses, while all neoplastic lesions made up for 85.0% of the lesions diagnosed in cattle [3]. The cause of ocular SCC is still poorly understood; however, there are several factors including genetic susceptibility, nutrition levels, age, UV light, circumocular apigmentation and viruses that may contribute to its development [6].

Enucleation is indicated in severe cases of irreversible trauma, squamous cell carcinoma, lymphangioma, proptosis etc. The incidence of ocular diseases justifying enucleation included squamous cell carcinoma (85%), retro bulbar lymphosarcoma (4%), proptosis of globe (4%) and rupture of globe (2%) cases [5].

History and Diagnosis

A cross bred cow was presented at teaching veterinary clinical complex, Hyderabad with a history of an extensive growth on the eye (fig.1), the growth was previously managed surgically but it was reoccurring. Clinical examination revealed all physiological parameters to be normal and the eye was severely inflamed, edematous and tumour like growth was noticed.

A small mass from the growth was removed and fixed in 10% formalin for histopathology. On histological examination irregular cords of neoplastic squamous epithelial cells surrounded by connective tissue stroma was noticed. The tumour was well differentiated with formation of keratin pearls in the centre of cords and presence of few mitotic figures. (Fig.2). Thus the growth was diagnosed as a squamous cell carcinoma in the present case.

Treatment and Discussion

The surgery was performed in the standing position after proper restraining of the animal was done. The hair around the eye was clipped and the skin was disinfected with betadine, anesthesia was achieved by auriculo palpebral nerve block using 5ml 2% lignocaine hydrochloride. A circumferential skin incision was made on the eye lid 2 cm away from their edges. The medial and lateral canthal ligaments were cut to access the caudal aspect of the orbit. Haemorrhage was controlled and blunt dissection was done around the globe and transection of the optic nerve was done to the extent possible. The globe along with orbital fat and extra ocular muscles were removed. Orbital cavity was packed with gauze and the eyelid margins were opposed with simple interrupted sutures (Fig.3) by leaving a gap near the medial canthus for dressing. Gauze was removed after 48 hours. The animal was administered DNS 3 litres i.v., Inj. Ampicillin sodium 1.5g, Dicloxacillin 1.5g (AC-VET Forte D 3g) i.m., Inj. Meloxicam 0.3 mg/kg b.wt i.m., Chlorpheniramine maleate 200 mg i.m., B complex injection 15 ml i.m., and Vitamin AD3E injection 5ml i.m. for 5 postoperative days. Antiseptic dressing was done on alternate days with tincture iodine for 2 weeks. Sutures were removed on 14th postoperative day after complete healing.

Enucleation remains a feasible, simple, inexpensive option of treatment for many types of

severe ocular pathology It has the potential to resolve chronic pain, infection, and neoplastic disease. Extirpation can be performed with routine restraint and surgical equipment at minimal cost to the client. Post-operative complications of the operative site are minimal [2]. Similar findings were noticed by [1] in recent publications.



Fig 1: squamous cell carcinoma of the eye

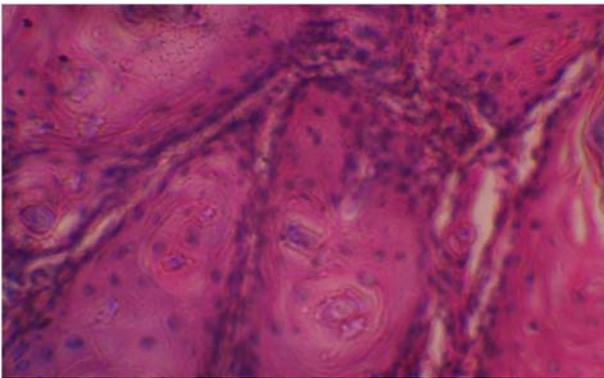


Fig 2: keratin pearl appearance of cells



Fig 3: closure of eye orbit after extirpation

References

1. Kamalakar G, Devi Prasad V, Mahesh R, Devaratnam J, Suresh Kumar RV. Surgical Management of Irreparable Orbital Disorders in Ruminants - A Report of Two Cases. *International Journal of Livestock Research*. 2014; 4(5):48-51.
2. Magda Mahmoud Ali, Madeh Adel Sadan and Ahmed Ibrahim Ocular Field Surgery in Ruminants,” *International Journal of Veterinary Medicine: Research & Reportss*. 2015, 1-8.

3. Martins TB, Barros CSL. Fifty years in the blink of an eye: A retrospective study of ocular and periocular lesions in domestic animals. *Pesq. Vet. Bras*. 2014; 34(12):1215-1222.
4. Radostits OM, Gay CC, Blood DC, Hinchcliff KW. *In Veterinary Medicine*, 9th edition, W.B. Saunders, Elsevier science ltd., Philadelphia, USA. 2003; 1813:7.
5. Schulz KL, Anderson DE. Bovine enucleation: A retrospective study of 53 cases (1998-2006) *Can. Vet. J*. 2010; 51(6):611-614.
6. Tsujita H, Plummer CE. Bovine ocular squamous cell carcinoma. *Vet. Clin. Food Anim*. 2010; 26:511-529.