



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; SP-11(6): 183-184
© 2022 TPI
www.thepharmajournal.com
Received: 26-04-2022
Accepted: 30-05-2022

Ajjanagi Bhimappa
Senior Veterinary Officer,
Department of Animal
Husbandry and Veterinary
Services, GOVT of Karnataka,
Veterinary Hospital, Satti,
Athani, Belagavi, Karnataka,
India

Vijay Kumar
Senior Veterinary Officer,
Department of Animal
Husbandry and Veterinary
Services, GOVT of Karnataka,
Veterinary Dispensary,
Salebeeranahalli, Karnataka,
India

Mallikarjun
Senior Veterinary Officer,
Department of Animal
Husbandry and Veterinary
Services, GOVT of Karnataka,
Veterinary Dispensary,
Nagaidlai, Karnataka, India

Corresponding Author
Ajjanagi Bhimappa
Senior Veterinary Officer,
Department of Animal
Husbandry and Veterinary
Services, GOVT of Karnataka,
Veterinary Hospital, Satti,
Athani, Belagavi, Karnataka,
India

Surgical management of third eyelid tumour in a cross-breed cow: A case report

Ajjanagi Bhimappa, Vijay Kumar and Mallikarjun

Abstract

A case of cross-breed cow was presented to Veterinary hospital, Satti, Tq: Athani Dist: Belagavi, Karnataka with the complaint of hard mass on border of the upper eyelid. Detailed history revealed that the mass was medium in size and was increasing gradually. Physical examination revealed pain on palpation. All clinical and hematological parameters were within the normal limit. Based on physical and clinical examination, the mass was diagnosed as third eyelid tumour and it was decided to remove surgically. The animal was restrained in standing position pre-operative antibiotic was given and growth was excised under local anaesthesia. The operated animal was administered with streptopenicillin 2.5g and meloxicam @0.3mg/kg bwt intramuscularly for four days. Eye drops consisting of ciprofloxacin and dexamethasone was administered 2 times a day for 7 days. The animal recovered uneventfully within 20 days and no recurrence was noticed after 3 months follow up.

Keywords: Third eyelid, squamous cell carcinoma

Introduction

Third eyelid tumour is a common type of tumour in bovines. Histopathologically it is characterized by epithelial cell tumour ie squamous cell carcinoma (Goldschmidt and Hendrick, 2002) [2]. Nutrition, heredity, ultraviolet rays and viruses (Tsujita *et al.*, 2010) [6] are the main etiological factors for squamous cell carcinoma of eye in bovines. Treatment depends on the location of the lesion and the degree of invasion with adjacent tissue. Eyelid tumours are best removed by surgical excision.

Tumours which are present on limbus and cornea can be treated with surgical excision followed by cauterization of tumour bed with silver nitrate or cryosurgery (Bhaskar *et al.*, 2010) [5]. However, initial stages like plaques and papillomas can be treated with intra-lesional injection of BCG vaccine at weekly interval (Rajmane *et al.*, 2007 and Ajjanagi *et al.*, 2013) [3, 7].

Case history and Observation

A six year old cross-breed HF cow was presented to Veterinary Hospital, Satti, Tq: Athani, Dist: Belagavi, Karnataka, with the history of medium sized growth on the third eyelid of right eye from past 4 month and was slowly increasing in size day by day. On clinical examination the growth was ulcerated and was approximately 8cm in diameter. Tentatively the growth was diagnosed as squamous cell carcinoma and for further confirmation the tissue was collected in 10% formalin for histopathology. On histopathological examination the growth was confirmed as squamous cell carcinoma.

Treatment and Discussion

The animal was restrained in standing position under xylazine sedation @ 0.05mg/kg intramuscularly. The eyelashes and hairs around the eye were clipped and the site was prepared aseptically for surgery. Anaesthesia achieved with 2% lignocaine hydrochloride by auriculo-palpebral, Peterson's, retrobulbar and supraorbital nerve blocks. Surgical excision of the growth was done by clamping two artery forceps at the root and the growth was excised completely. After checking the extent of bleeding artery forceps removed and site was cleaned with normal saline. Post-operatively streptopenicillin @ 2.5g and meloxicam @ 0.3mg/kg given intramuscularly.

Ocular squamous cell carcinoma or cancer eye is the most common malignant neoplasm of epithelial origin affecting cattle and leading to heavy economic loss to the farmer (Fazili *et al.*, 2001 and Sivaseelan *et al.*, 2008) [1, 4]. Surgical excision with cauterization of tumour bed with silver nitrate or liquid nitrogen is better than surgery alone (Bhaskar *et al.*, 2010) [5].



Presence of growth on third eyelid



No recurrence of growth after 30 days



Aseptic preparation for surgical excision



Surgical excision of tumour growth



Excised mass



Post-operative image of right eye

References

1. Fazili MR, Buchoo BA, Darzi MM, Hussain SS. Ocular squamous cell carcinoma in a cow. *Indian Journal of Veterinary Surgery*. 2001;22:130-132.
2. Goldschmidt MH, Hendrick MJ. Tumours of skin and soft tissues. Meuten, DJ. (ED.) *Tumors of Domestic Animals*, 4th ed. Iowa State Press, 2002.
3. Rajmane SU, Aher VD, Bapat, Karpe AG. Immunotherapy and surgical treatment of eye cancer in bovines. *Intas polivet*. 2007;8(1):182-184.
4. Sivaseelan S, Balasubramaniam GA, Srinivasan P, Balachandran P, Thangathurai R, Dharmaceelan S. Squamous cell carcinoma of eye in a she buffalo. *Tamilnadu Journal of Veterinary and Animal Sciences*. 2008;3:117-118.
5. Bhaskar RP, Shivaprakash BV, Dilipkumar D, Usturge SM. Vision saving techniques for eye cancer involving a portion of cornea in bullocks. Large animal surgery session, proceedings of XXXIV Annual congress of ISVS and international symposium, 2010, pp 123.
6. Tsujita H, Plummer CE. Bovine ocular squamous cell carcinoma. *Veterinary Clinical Food Animal Practice*. 2010;26:511-529.
7. Ajjanagi Bhimappa, Shivaprakash BV, Dilipkumar D, Suguna Rao, Usturge SM. Comparison of superficial keratectomy and silver nitrate application with BCG vaccine for the treatment of initial stages of eye cancer in bullocks. *Indian journal of natural science*. 2013;6(34):603-607.