OCULAR SQUAMOUS CELL CARCINOMA IN A BUFFALO: A CASE REPORT

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ABSTRACT

A four and half year old female murrah buffalo was referred to the Teaching Veterinary Clinical Complex (TVCC) with the history of growth on the nictitating membrane of the left eye near the medial canthus since one month. Animal showed little discomfort due to the growth but have normal vision. Neoplastic outgrowth was excised after ligating its base with 3-0 chromic catgut and lavaged with normal saline solution. The animal was recovered uneventfully within 15 days.

Keywords: buffalo, eye, squamous cell carcinoma

INTRODUCTION

Squamous cell carcinoma is a tumour of epidermal cells in which the cells show differentiation to keratinocytes. Squamous cell carcinoma is the most commonly occurring neoplasm afflicting the bovine eye (Fazili *et al.,* 2001; Kohlirn and Mashadi, 2008; Sivaseelan *et al.,* 2008). The most common areas affected are limbus (junction of the cornea and the sclera), third eyelid, and on the upper and lower eyelid margins primarily at muco-cutaneous junctions (Goldschmidt and Hendrick, 2002). The malignant tendency of this disease makes early recognition critical. The etiology of the disease is multifactorial. However, prolonged exposure to sunlight (ultraviolet light) also seems to be a driving force for the disease (Anderson and Badzioch, 1991).

This report communicates a case of ocular squamous cell carcinoma in a female buffalo, which was successfully treated by surgical intervention.

CASE HISTORY AND CLINICAL EXAMINATION

A four and half year old female Murrah buffalo was referred to the Teaching Veterinary Clinical Complex, LUVAS, Hisar with the history of growth on the left eye near the medial canthus (Figure 1). There was watery discharge from the affected eye since one month. The animal was treated with parental administration of antiobiotic and topical eye drop since last 15 days but no significant improvement was noticed.

Clinical examination revealed a hard growth on nictitating membrane near the medial canthus of the left eye. The animal had normal vision with mild opacity of cornea. The rectal

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temperature, heart rate, pulse rate and respiratory rate were within the normal physiological limits. Blood and serum biochemical values were also within the normal reference range. The surgical excision was decided and the site was prepared for asepsis.

RESULTS AND DISCUSSION

Animal was sedated with Injection Xylazine at the rate of 0.05 mg/kg body weight intravenously and regional anaesthesia was achieved by performing Peterson nerve block using 10 ml 2% lignocaine hydrochloride. Neoplastic outgrowth was excised after ligating its base with 3-0 chromic catgut (Figure 2). The eye was lavaged with normal saline solution.

Post operatively parental antibiotics Enrofloxacin at the rate of 5 mg/kg body weight and analgesic Meloxicam at the rate of 0.5 mg/kg body weight were administered intra muscularly, daily for five consecutive days. Eye ointment was applied topically in the affected eye (thrice per day) for 10 days. The animal was recovered uneventfully within 15 days and no complication has been reported since one month after operation.

On histopathological examination, proliferating epithelial cells with concentrating layer of keratin forming cell nest was found. The tumourous growth was diagnosed as a squamous cell carcinoma as similar finding reported by Patel

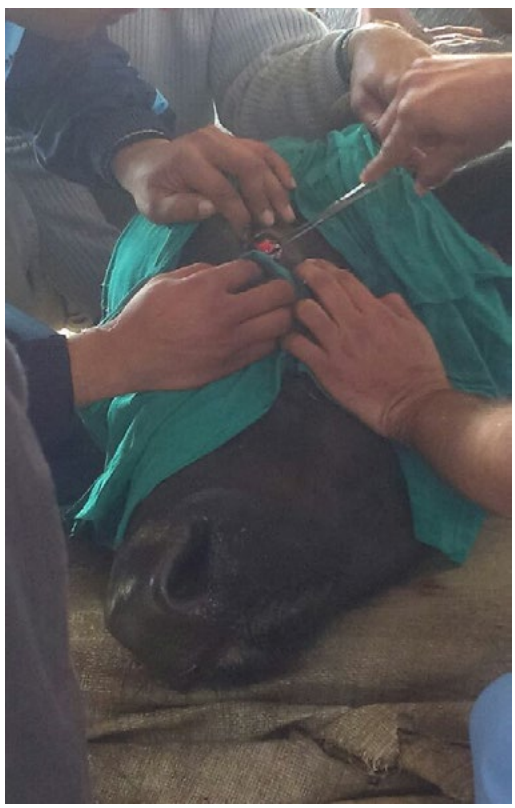

Figure 1. Growth near the medial canthus of the left eye.

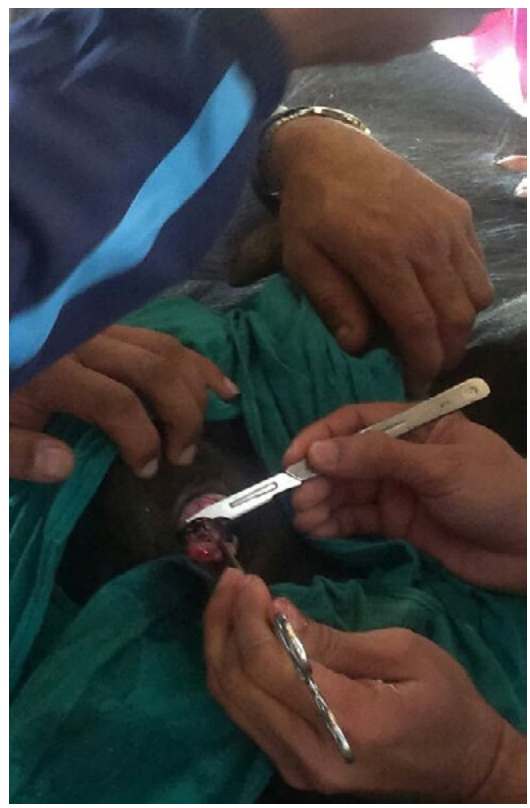

Figure 2. Excision of neoplastic growth.

et al. (2009) in buffalo, Al-Asadi (2012) in Iraqi dairy cows and Fazili *et al.* (2001) in jersey cow.

CONCLUSION

Early recognition and evaluation of squamous cell carcinoma is necessary and easily be removed successfully without much complication.

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