

## A RARE CASE OF CUTANEOUS FIBROMYXOMA IN A MARE

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### SUMMARY

A two year old mare was presented with growth on the skin above the right upper eyelid at the level of dorsal border of the orbit since two months. The growth was consistently increasing in size and making animal uncomfortable with right eye. Estimates of physiological and haematological parameters were within the normal range. The growth was surgically excised under xylazine-ketamine anaesthesia in left lateral recumbency and animal showed uneventful recovery. Histopathology of the excised mass revealed fibroblast cells arranged in interwoven bundles and slender to stellate shape pale staining spindle cells in lightly basophilic myxoid matrix content suggestive of cutaneous fibro-myxoma.

**Key words:** Fibro-myxoma, Upper eyelid, Equine, Tumour.

Tumours are one of the major causes of morbidity and mortality among animals. In equines, more than 80% of the neoplasia is reported in the skin (Theon, 2006). The common types of cutaneous tumours in equines include the squamous cell carcinoma, papilloma, sarcoid and melanoma. Rare benign neoplasms in the horses which arise from dermal or subcutaneous fibroblasts known as fibroma, when associated with focal areas of mucinous degeneration are referred to as fibromyxoma (Scott and Miller, 2003). Cutaneous myxoma is a rare myxoid tumour of the skin and subcutaneous tissue in domestic animals (Derakhshanfar *et al.*, 2007) and considered to be a benign neoplasm that normally stem from subcutaneous or dermal fibroblast. Its predilection site includes the head, neck, trunk and lower extremities (Vissa *et al.*, 2011). On palpation, either hard, elastic or soft like consistency may be felt and largely noted in middle-aged adults or elderly animals with no discrimination to sexual factors (Rani *et al.*, 2013). Genetics, environmental factors, carcinogenic drugs or miscellaneous toxic substances are among the probable causes of this neoplasm (Yeruham *et al.*, 1999). The present article reports successful surgical management of cutaneous fibromyxoma in a mare.

A two years old white coated mare was presented with the complaint of two distinct but adjoining growths on skin above the dorsal rim of the orbit and consistently increasing in size since last two months (Fig.1). One of the growths was ulcerated and discharging pus while the other growth appeared as a roundish mass arising from the skin. Physiological and haematological parameters were within the normal range. The animal was active, had normal appetite and, a localized area of skin and subcutaneous tissue near the dorsal margin of orbit were involved. It was decided to excise the growth surgically.

The surgical site was prepared for asepsis and tetanus toxoid (5ml, IM) was administered preoperatively. Xylazine hydrochloride @ 1.1mg per kg body weight followed by dissociative anaesthetic ketamine hydrochloride @ 2.2mg per kg body weight was injected intravenously and animal was secured in left lateral recumbency on soft bedding. An elliptical skin incision was made around the growth, skin was separated from basal region and the growth was surgically excised including its subcutaneous attachment. Postoperatively, streptopenicillin @ 2.5g bid and ketoprofen @ 2.2 mg per kg were administered intramuscularly for three days. Owner was advised to dress the wound daily using povidone iodine solution and to apply fly repellent spray. The skin sutures were removed on 12<sup>th</sup> day postoperatively. The recovery was uneventful.

A portion of surgically excised mass was collected in 10% buffered formal saline solution for histopathological examination. Histopathology revealed the features of both fibroma with myxoma having fibroblast cells arranged in interwoven bundles and whorls along with slender to stellate shape pale staining spindle cells in lightly basophilic myxoid matrix. This was suggestive of fibromyxoma (Fig. 2).

A fibroma is a benign neoplasm rarely seen in mature horses and accounts for 2.1–17.1% of all skin neoplasms (Scott 2007). There is no breed predisposition for fibromas. Fibromas most commonly occur on the extremities, ventral body wall or on the head (Baker and Leyland 1975; Colitz *et al.*, 2000; Scott and Miller 2003). The myxoblastic change is mainly supposed to be due to metaplasia (Rao, 2004). When considering a therapeutic approach, one must consider not only the method of choice depending on feasibility, availability and financial constraints, but also possible complications postoperatively. In the present case, since the enlargement was big enough over the upper eyelid of

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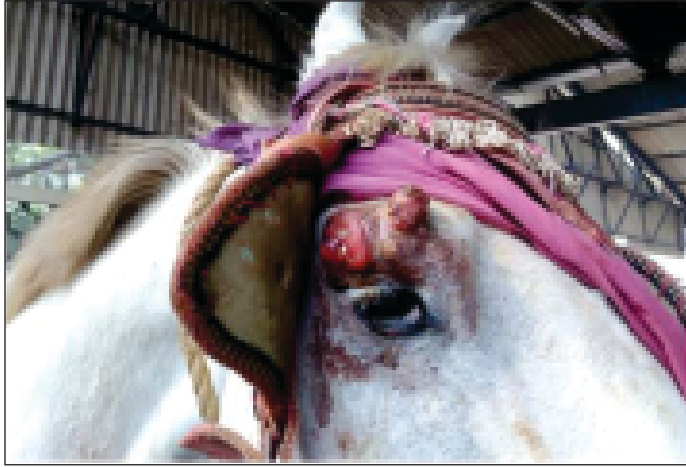


Fig 1. Mare with growth on skin above the right upper eyelid.

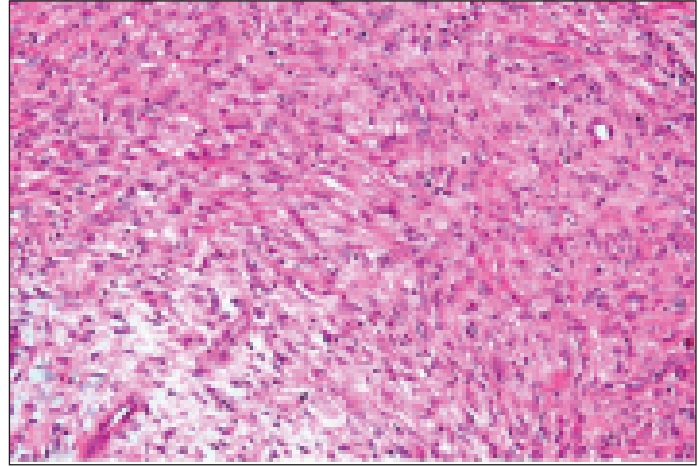


Fig 2. Fibromyxoma showing fibroblast cell and stellate cells sparsely dispersed in mucinous ground substance.

eye interfering with vision, so skin of eyelid was saved up to maximum to maintain its natural functions of eyelid postoperatively. Cutaneous tumour near dorsal margin of orbit may be fibromyxoma in equines which responds well to early surgical excision without any postoperative complication.

## REFERENCES

- Baker, J.R. and Leyland, A. (1975). Histological survey of tumours of the horse. *Vet. Rec.* **96**: 419-422.
- Colitz, C.M.H., Gilger, B.C. and Davidson, M.G. (2000). Orbital fibroma in a horse. *Vet. Ophthalmol.* **3**: 213-216.
- Derakhshanfar, A., Rafie, S.M. and Nazem, M.N. (2007). Myxoma in terrier dog. A case report. *Iran J. Vet. Surg.* **2**:79.
- Rao, D.G. (2004). A Textbook on Tumours of Domestic Animals. (1st edn.), International Book Distributing Co.
- Rani, R.U., Pazhanivel, N. and Balachander, C. (2013). Surgical management of an uncommon cutaneous myxoma in a dog. *Int. J. Vet. Sci. Tech.* **2**: 72.
- Theon, A.P. (2006). Equine Dermatology. Higgins, A.J. and Snyder, J.R. (edt). (2<sup>nd</sup> edn.), Elsevier. Pp 731-35
- Scott, D.W. (2007). Color Atlas of Farm Animal Dermatology, Blackwell Publishing, Ames. pp 84-85.
- Scott, D.W. and Miller, W.H. (2003). Equine Dermatology, W.B. Saunders, St Louis. pp 731-732.
- Vissa, S., Baddukonda, A.R.K., Nandam, M.R., Raji, S.R., Poorna, B.H., Sekhar, C. and Chenna, V.H. (2011). Superficial angiomyxoma with epithelial component- a rare Cutaneous myxoid tumour. *J. Bio. Sci. Tech.* **2**: 328-323.
- Yeruham, I., Perl, S. and Orgad, U. (1999). Congenital skin neoplasia in cattle. *Vet. Dermatol.* **10**: 149-156.