

SQUAMOUS CELL CARCINOMA OF NASAL PLANUM IN A DOG - A CASE REPORT

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ABSTRACT

An eleven years old Labrador Retriever was presented to Veterinary Clinical Complex, Warangal with a complaint of deformity of the nasal planum, epistaxis and sneezing. A biopsy was performed and histopathology confirmed the growth to be squamous cell carcinoma.

Keywords: Nasal tumor, squamous cell carcinoma

INTRODUCTION

Tumors of nasal cavity and paranasal sinuses are uncommon in dogs accounting for 1 to 2 per cent of all the canine neoplasms. Most of these tumors are locally invasive but rarely metastasize, however complete cure is difficult due to invasion into oral cavity, orbit and brain (Kondo *et al.*, 2008). Common clinical signs are ulceration, epistaxis, sneezing and nasal deformity (Malinowski, 2006). Commonly seen in middle aged to older, medium to large breed dogs with dolicocephalic or mesocephalic facial conformation (Beck and Withrow, 1985). Kondo *et al.* (2008) reported occurrence of nasal tumors in older dolicocephalic dogs of 10 to 15 years of age. Reif *et al.* suggested that, exposure to tobacco smoke is a potential cause of nasal tumors in pet dogs. Exposure of

dogs to sunlight for long hours especially during hot periods with non-pigmented nasal planum has also been reported to cause nasal tumors in dogs. A combination of surgery, radiation and chemotherapy is the current standard of treatment for nasal tumors in dogs (Kondo *et al.*, 2008). Osaki *et al.* (2009) suggested photodynamic therapy can be a promising method for canine oral and nasal tumors. Langova *et al.* (2004) stated that chemotherapy with alternating doses of doxorubicin, carboplatin and oral piroxicam resulted in complete remission in four of the eight dogs treated for nasal tumors. Beck and Withrow (1985) stated that these tumors metastasize late in course of the disease, so aggressive surgery and radiation therapy is the treatment of choice to control local disease. Radiation therapy alone was also advised as the most effective treatment (Henley *et al.*, 2010).

CASE HISTORY AND OBSERVATIONS

An eleven years old Labrador Retriever was presented to Veterinary Clinical Complex, Warangal with a complaint of deformity of the nasal planum, epistaxis, sneezing and difficulty in breathing. The growth was reported to be present since three months. Physical examination revealed an aggressive lesion of the nasal

planum obliterating the external opening of nares to be the cause of the deformity. A biopsy was done under general anaesthesia with Inj. Xylazine @ 1 mg/kg and Ketamine @ 5 mg/ kg body weight after premedication with Atropine @ 0.04 mg/ kg body weight. The histopathology of the biopsy specimen revealed the growth to be squamous cell carcinoma.



Fig.1. Dog with squamous cell carcinoma of the nasal planum.

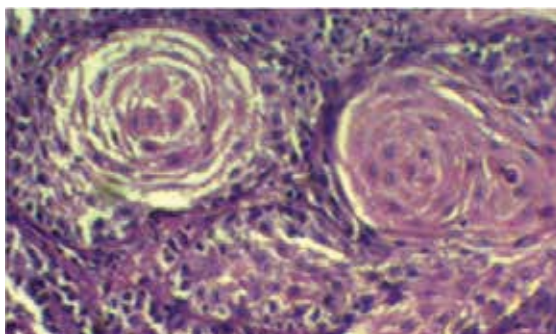


Fig. 2. Photomicrograph showing well differentiated squamous cell carcinoma with pearl like structures. (H and E, $\times 100$)

TREATMENT AND DISCUSSIONS

Euthanasia was advised as there was severe deformity which was not amenable for surgical resection and chemotherapy was declined by the owner because of the deteriorating condition of the animal and non-availability of radiation therapy facility.

Tumors of the nasal planum should be considered as one of the differentials in cases with clinical signs of ulceration, epistaxis, sneezing and nasal deformity, especially in older middle to large breed dogs and those with non-pigmented nasal planum (Langova *et al.*, 2004). A biopsy should be performed without delay, as these tumors are known to metastasize late in course of the disease and aggressive surgery and/or chemotherapy can be used to prolong the life of the animal though complete cure may not be possible. Aggressive surgical procedures like nasal planectomy or anterior maxillectomy can be performed, if the disease is detected in the early stages. The owners of the dogs with non-pigmented nasal planum may be advised to keep their pets indoors especially during hot periods of the day as exposure to sunlight for prolonged periods is known to cause squamous cell carcinomas.

SUMMARY

The present case report puts on record a case of squamous cell carcinoma of nasal planum in an eleven years old Labrador Retriever, which should be considered as one of the differentials in cases with clinical signs of ulceration, epistaxis, sneezing and nasal deformity. An early diagnosis may help in prolonging the life of the dogs, if treated early and aggressively with surgical procedures such as nasal planectomy, partial maxillectomy and chemotherapy.

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