OCCURRENCE OF SQUAMOUS CELL CARCINOMA IN NON-DESCRIPT DOG

Mahesh. S. Bhandurge¹, Sahu Rajesh Kumar, G. Ramesh Naik, T. Usha, G.K. Sawale, Y. Ravikumar, D. Madhuri² and M. Lakshman

¹M.V.Sc. Student, ²Professor & Head, Department of Veterinary Pathology, College of Veterinary Science, PVNRT Veterinary University, Rajendranagar, Hyderabad - 500 030 (Telangana).
[Received: 13.1.2017; Accepted: 19.9.2017]

A nine years old non-descript male dog was treated at the Private Pet Clinic growth on the upper surface of eyelid. The growth was surgically removed. However, after 3 month of the surgery, again another growth appeared on skin near base of tail. The growth was removed and submitted for histopathological examination to our pathology department which revealed characteristics lesions of squamous cell carcinoma.

Key words: Histopathology, Non-descript dog, Squamous cell carcinoma.

Squamous cell carcinoma (SCC) is a malignant neoplasm arising from squamous epithelium. In dogs, SCC accounts for approximately 5% of cutaneous neoplasms. The most common cutaneous locations for SCC in the dog are the skin, oral cavity, nail bed, scrotum, legs, and various lightly pigmented areas (Goldschmidt and Hendrick, 2002; Withrow and Vail, 2007). Other locations reported to develop SCC in dogs include the conjunctiva, cornea, nasal passages, larynx, lung, esophagus, bladder, prostate, penis, cervix, vagina, and anal sac (Esplin et al. 2003). Present communication describe occurrence of SCC on the surface of eyelid and tail in a nine year old non-descript dog.

Case IIstory and Observations

A nine years old non-descript male dog was presented to the Private Pet Clinic with small nodular growth on the upper surface of eyelid which turned to somewhat cauliflower like structure after 15 days. It was removed surgically. However, after 3 month of the surgery again another nodular cauliflower like growth of 1.5 cm in diameter appeared on skin near base of tail.

The growth was surgically excised and preserved in the 10% buffered formalin solution. The tissues were submitted to the Department of Pathology, COVAS, Hyderabad for Histopathology. The fixed tissue samples were processed by paraffin embedding technique. Sections of 5 µm thick were taken and stained with hematoxylin and eosin (H&E) method.

Results and Discussion

The growths were confirmed as SCC by histopathological examination. The tumour showed rapid growth and metastasis with growth on skin at the base of tail. In literature, the most cases of SCCs are locally invasive and in certain areas of the body, exhibit bone invasion and osteolysis. Tumour spread to local lymph nodes may occur, but distant metastases are rare and usually do not occur until late in the disease process as also reported by Goldschmidt and Hendrick (2002) and Withrow and Vail (2007).

The age of dog in the present investigation was 9 year. In accordance to this Goldschmidt and Hendrick (2002) were also of the opinion that older dogs are at greater risk for developing SCC, with the average age of presentation being 8 to 10 years. Prolonged exposure to UV light, lack of skin pigment and a sparse hair coat all have been suggested for the development of cutaneous SCC. Histopathological examination of ocular growth showed characteristic lesions of well differentiated SCC. The neoplastic cells showed a wide range of maturation ranging from small immature type to highly keratinized cells with the number of latter being predominant. The section showed extensive keratinization with formation of keratin “pears” (Fig.1). The histological appearance was similar to that previously
Conclusions
SCC is typically a locally aggressive neoplasm with a variable potential for distant metastasis. SCC is a common tumour of dogs that vary in appearance, location, and biologic behavior; however, they are typically locally aggressive, with a reported low to moderate metastatic potential. Hence, early recognition, diagnosis and treatment are essential.

References