

Surgical Excision of Squamous Cell Carcinoma in dogs a Report of Two Cases

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Abstract

The present communication reports the surgical excision and management of squamous cell carcinoma in two dogs.

Keywords: Squamous cell carcinoma, neoplasm and dogs

Introduction

Squamous cell carcinoma (SQCC) is one of the most common neoplasms of the dogs constituting 41% of canine cancers. SQCC are more prevalent in large breed dogs (Garrett, 2009). A squamous cell carcinoma is a type of cancer that originates in the squamous epithelial cells located in the skin, kidneys, reproductive tract, intestines (oral to rectal) and mucosal surfaces of most organs, although the skin, oral cavity and digits are the most common sites in dogs (Withrow., 2001). The mean age of the affected dogs is 8-9 years (Marino1995). It may appear to be a white skin mass, or a raised bump on the skin which may necrotize in the centre and ulcerate, with occasional bleeding.

Case History & Observations

Two dogs were presented to the Dept of Surgery & Radiology, College of Veterinary Science, Tirupati with a history of masses grown at the medial side of right thigh in a mongrel dog (Fig.1) and medial aspect of the right hock in a Greatdane dog (Fig.2) and were increasing in size, for the past one month. On palpation the growths were hard. Fine Needle Aspiration Cytology revealed the presence of malignant cells and it was decided to excise the growths surgically.

Treatment and Discussion

The dogs were sedated with Inj. Atropine Sulphate @ 0.04 mg per kg body wt i.m and Inj. Xylazine @ 1 mg per kg body wt i.m 10 min prior to induction of general anaesthesia. The anaesthesia was induced with ketamine hydrochloride @ 10 mg per kg body wt intravenously and maintained with Ketamine and Diazepam mixture Intravenously. The surgical site was

prepared for aseptic surgery in routine manner. An elliptical incision was taken at the base of swelling and the mass was separated from skin by blunt dissection. Haemorrhage was controlled by electro cautery and ligatures. Obliteration of dead space was done by suturing subcutaneous tissue using chromic catgut No.1 in continuous manner and skin was closed by simple interrupted suture using silk No.1. Post operatively, inj. Ceftriaxone @ 10mg/kg bwt was given for 5 days and inj. Melonex @ 0.2mg/kg body wt for 3 days. On 12th post operative day, skin sutures were removed and animals recovered uneventfully. No reoccurrence of growth was observed over a period of 6 months. The excised masses were subjected to histopathological examination which revealed Keratin Pearls with concentric layers of Squamous cells (Fig 3).

Squamous cell carcinoma is a locally invasive malignant tumour that arises from a cell type known as the keratinocyte, the primary cell type found in the skin and mucous membranes. Cutaneous tumors are typically fast growing tumors that get bigger with time and resist healing (Hargis et al.,1987). Despite their common cell of origin, SQCC tumors display different characteristics in dogs and cats . A combination of surgery and radiation therapy may be successful and result in excellent control, but this is typically on the case, if cancer is detected early on (Withrow.,2001),

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Fig. 1 Photograph showing Mass at the medial side of Right thigh - Dog



Fig. 2 Photograph showing Growth at the hock region - Dog

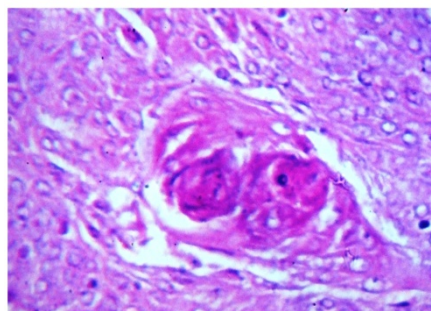


Fig.3 Photograph showing Keratin Pearls with concentric layers of Squamous cells