

Case Report

**MANAGEMENT OF CUTANEOUS CANINE TRANSMISSIBLE VENEREAL
TUMOUR IN A DOG- A CASE REPORT**

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Abstract: A 6 year old female Daschund was presented with cutaneous multiple disseminated growth at the neck, flank and dorsum regions which were not responding to conventional line of treatment for a month. Radiological examination of the thorax showed the presence of subcutaneous soft tissue masses without any indication of metastasis. Fine needle aspiration cytology of the cutaneous nodule stained by leishman giemsa confirmed the condition as canine transmissible venereal tumour. Inj. Vincristine sulphate was administered intravenously for four sessions along with hematinics and multivitamins. The animal showed complete regression of lesions within a month.

Keywords: Dog, Cutaneous multiple disseminated growth, Vincristine sulphate.

Introduction

Canine transmissible venereal tumor (CTVT) is a naturally occurring contagious round cell tumor that primarily affects the genital mucosa but has also have affinity to the conjunctiva (Boscos *et al.*, 1998), nasal (Balagopalan *et al.*,2016), and the skin (Bahera *et al.*, 2012), with or without involvement of the genitalia of both sexes within the Canidae family (Marcos *et al.*,2006). It is broadly classified into two groups, based on their locations as genital TVT and extragenital TVT (Das and Das, 2000). The CTVT is transmitted to susceptible dogs by transplantation of viable tumor cells during coitus, can also affects the skin via the direct implantation of tumor cells during social contact like sniffing or licking, (Stockmann *et al.*,2011). It affects all dogs irrespective of age, sex and breed (Birhan and Chanie, 2015). It has been reported that social interaction between dam (carrying the tumor) and puppies plays a major role to transmit by contaminating the mucous membranes (nasal, oral, ocular, or anal) and tegument of the puppies (Varela *et al.*,2013). The present case discusses the occurrence of Cutaneous Canine Transmissible Venereal Tumour and its management.

Case History and Observations

A 6 year old female Daschund was presented to the small animal surgery unit of Teaching Veterinary Clinical Campus, Rajiv Gandhi Institute of Veterinary Education and Research, Pondicherry with a history of cutaneous multiple disseminated growths at the neck, flank and dorsum regions for a period of one year, which were not responding to conventional line of treatment for a month. On clinical examination, the lesions were found to be flexible, nonpainful, nonulcerated and nodular in nature measuring 2-5cm in diameter (Fig.1). Physiological and haematological parameters were within normal range. Radiological examination of the thorax did not show any indication of metastasis (Fig.2). Fine needle aspiration cytology using a 22G needle and 10ml syringes of the cutaneous nodule (Rocha *et al.*,2014) stained by leishman giemsa revealed the presence of uniform round cells with cytoplasmic vacuolations, (Fig.3) which was characteristic for canine transmissible venereal tumour and the confirmatory diagnosis was made.

Treatment and Discussion

The animal was administered with Inj. Vincristine sulphate (Vincristine Sulphate – Cytocristin[®], Cipla Limited) @ 0.025 mg/kg b.wt. in normal saline once in a week for four sessions along with hematinics (Dexorange[®] Syrup, Franco-Indian Pharmaceuticals Pvt Ltd) and multivitamins (Multistar Pet[®] Syrup, Pet Mankind Pvt Ltd) during the period of treatment. After four sessions of chemotherapy complete regression of all the lesions had been observed with no signs of vincristine toxicity (Fig.4). Recurrence was not noticed till six months.

The Fine Needle Aspiration Cytology of the nodule revealed the presence of round cells with large nuclei, prominent nucleolus and frequent cytoplasmic vacuolations which is in agreement to the reports of Lopes *et al.* (2015).

Treatment protocol with Inj. Vincristine sulphate @ 0.3mg along with 50 ml of 0.9% normal saline intravenously was found to be effective as single agent chemotherapy at weekly interval for four sessions (Marcos *et al.*,2006; Said *et al.*, 2009 and Lopes *et al.*,2015). The expected undesirable effects of vincristine administration viz., decreasing in appetite, vomiting, diarrhoea, neutropenia and diffuse alopecia as reported by Said *et al.*(2009) and Marcos *et al.*(2006) were not reported in the present case that might be due to supplementation of oral Hematinics and Multivitaminsyrups. After four weeks of vincristine administration a drastic reduction of the lesions were noticed without any relapse within six months.

Cutaneous Canine Transmissible Venereal Tumours are rarely reported in dogs. The response to the treatment will be based on differential diagnosis, the present case was responded very well to administration of Inj. Vincristine sulphate @ 0.025mg/kg I/V for 4 sessions.

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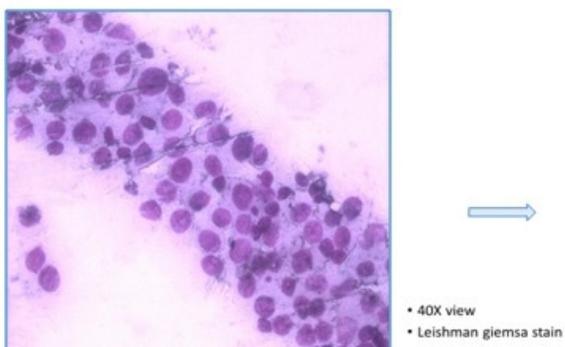
Figures:



**Fig. 1 Dog with Cutaneous Nodular Lesions
On the day of presentation**



**Fig. 2 Lateral Survey radiograph of
thorax showing absence of metastatic
lesions**



**Fig. 3 FNAC showing cytoplasmic
Vacuolations**



**Fig. 4 Dog Showing complete
regression of cutaneous lesions
by 4th week**