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Therapeutic management of cutaneous transmissible venereal tumour in two non-descript dogs

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Abstract

Two non-descript dogs were presented with a non-healing ulcer on the skin. On examination multiple lumps were presented all over the body. Fine needle aspiration cytology was performed from the subcutaneous mass. Cytology revealed round tumour cells with vacuolated cytoplasm. The case was diagnosed as canine cutaneous transmissible venereal tumor. Both the dogs were treated with vincristine sulfate @ 0.5 mg/kg per m². Both the dogs showed a uneventful recovery.

Keywords: Dog, cutaneous, TVT, vincristine

Introduction

Canine TVT is a naturally-occurring round cell tumour (Goldschmidt and Hendrick, 2002) [1], contagious neoplasm that primarily affects the genital mucosa but has also been reported in the conjunctiva, the oral, nasal, and anal mucosae, and the skin, with or without involvement of the genitalia (Rogers, 1997 [2] and Cohen 1885) [3]. The aim of the study is to present the clinical signs, laboratory assessment and treatment of an atypical presentation of TVT in dogs.

Materials and Method

Two dogs with a history of a non-healing ulcer on the skin and subcutaneous multiple tumour growth of size measuring from 3mm to 1 cm in diameter (Fig 1) which were presented to Veterinary Clinical Complex, Veterinary College and Research Institute, Salem were selected for the study. Fine needle aspiration cytology was performed on the subcutaneous masses. Multiple cauliflower like growth was also seen in the preputial region also. Vital signs were all within normal limit and the body condition score was 3/5.

Laboratory Assessment

The hemato-biochemical parameters were within the normal limits. Fine needle aspiration cytology was highly cellular with mild anisocytosis. The nucleus was round and cytoplasm contained multiple vacuoles suggestive of transmissible venereal tumour (Fig 2).

Treatment and Discussion

Das and Das, 2000 [4] reported that Transmissible venereal tumour is a naturally occurring allograft. Exfoliation and transplantation of neoplastic cells occurs during mating or licking of affected genitalia. These physical contacts provide the main mode of transmission onto the genital mucosa, and also onto nasal or oral mucosa (Cohen, 1985) [3]. In the present study the localisation of the mass in the subcutaneous may be attributed to the oxidative stress and impaired endogenous antioxidant defence mechanism by the action of free radicals and exogenous factor as reported by Behera *et al.*, 2012 [5]. The hemato-biochemical parameters were within the normal range in these dogs which was in agreement with Das *et al.*, 1991 [6]. The dogs were treated with vincristine sulfate @ 0.5mg/kg per m² intravenously along with fluids at weekly intervals for four weeks. Haematology and biochemical parameters were taken before every chemotherapeutic protocol and they were within normal limits (Das *et al.*, 1991) [6]. The mass completely regressed after 3 doses (Fig 3), but as a precaution the animal was given the 4th dose also. Both the dogs went into remission without any relapse after four doses. This atypical cutaneous TVT responded to single agent chemotherapy as quoted by Rogers, 1997 [3].

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Fig 1: Subcutaneous masses and ulcerated nodule

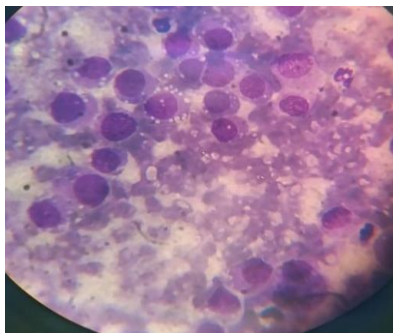


Fig 2: Fine needle aspiration cytology



Fig 3: After treatment complete remission of the mass

Conclusion

A atypical presentation of transmissible venereal tumour and its management is reported

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