

An unusual case of Cutaneous Histiocytoma in a dog – A case report

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ABSTRACT

A 3 years old Pug was presented with a chronic wound on the skin at the perineal region for a month and infested with maggots. The wound was found to be extensive with everted edges without any abnormal discharge. Histopathological evaluation was done which confirmed the condition as histiocytoma with acute inflammatory reaction. Inj. Vincristine sulphate diluted in normal saline was administered intravenous once in a week for two sessions along with supplementation of haematinics and multivitamins during the period of treatment. The animal showed complete regression of the wound edges within two weeks period.

Keywords: Pug, Chronic extensive wound, Perineal region, Histiocytoma

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INTRODUCTION

The canine cutaneous histiocytoma (CCH) is a benign nodular lesion which occurs predominantly in young animals [6]. They are the most common skin tumor of dogs [3]. In general, cutaneous histiocytomas arises as a solitary lesion in young dogs of age group less than 4 years. The breeds predisposed to CCH include brachycephalic breeds, such as boxers and bulldogs, although Scottish terriers, Doberman pinschers, and cocker spaniels were also reported to be overrepresented as well [2]. Orkinm and chwartzmarn [9] and Smith and Jonest [11] opined histiocytoma as an extragenital form of the canine transmissible venereal tumour. The present case discusses the occurrence of canine cutaneous histiocytoma in a pug and its successful management.

MATERIALS AND METHODS

A 3 years old female Pug was presented to the small animal surgery unit of Teaching Veterinary Clinical Complex, Department of Veterinary Surgery and Radiology, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry with a history of a chronic wound on the skin at the perineal region close to the upper commissure of the vulva which was not responding to conventional line of treatment for a month. On clinical examination, the wound was found to be extensive with everted edges, measuring 3.5 cm in length and 2-5 cm in width. The wound was wet without any abnormal discharge (Fig.1). Physiological and haematological parameters were within normal range. Following routine treatment for maggots using maggocide spray (Dmag® Spray, Intas Pharmaceuticals Pvt Ltd) for two days, a punch biopsy of 4 mm in size and impression smear were taken (Fig.2). The tissue sample fixed in 10% neutral buffered formalin was processed by routine paraffin-embedding technique and 4-5 µm thick sections were prepared and stained by routine Haematoxylin and Eosin (H&E) for detailed histopathological studies [7]. The cytological and histopathological evaluation was suggestive of histiocytoma with acute inflammatory reaction (Fig.3).

Fig.1 Showing Extensive wound at the perineal region infested with maggots



Fig.2 Showing Punch biopsy technique

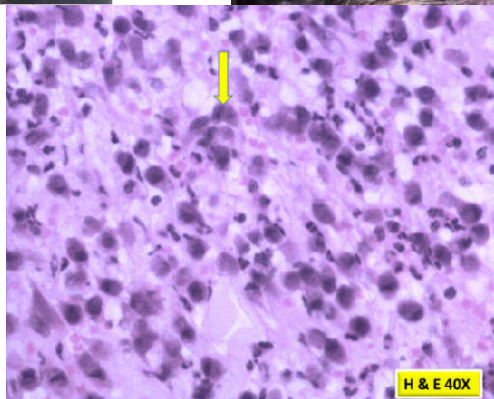


Fig.3Histiocytoma- showing large round to oval cells with eosinophilic cytoplasm.H & E 40x

RESULTS AND DISCUSSION

Inj. Vincristine sulphate (Vincristine Sulphate-Cytocristin®, Cipla Limited) @ 0.025 mg/kg b.wt. in normal saline was administered intravenous once in a week for two sessions along with supplementation of haematinics (Hemobest® Syrup, TTK health care Pvt Ltd) and multivitamins (Tonin® syrup, SihilPharma Pvt Ltd) during the period of treatment. The animal showed complete regression of lesions within two weeks (Fig.4 and Fig.5).

Fig.4 Showing wound contracture after 1st week



Fig.5 Showing Complete regression of lesion at the end of 2nd week



Cutaneous histiocytomas are generally diagnosed by cytopathologic examination, but histopathological examination with immunohistochemical staining provides a confirmative diagnosis [2]. In the present

case, the diagnosis was made by cytological examination of the impression smear and histopathological examination of the biopsy specimen.

Vincristine, a plant alkaloid, is a chemotherapeutic agent that is widely used to treat various neoplastic disorders, such as lymphomas, leukemias and sarcomas in dogs and cats [1, 4]. This alkaloid exerts cytotoxic activity by disrupting cellular microtubule formation [5]. Fulmer and Mauldin [2], stated that the dog with disseminated cutaneous histiocytic sarcoma that temporarily responded to multiple protocols that included vincristine, cyclophosphamide, prednisone, mitoxantrone, dacarbazine, and etoposide. The present case shown complete regression of the growth with the administration of Inj. Vincristine sulphate @ 0.025mg/kg along with 0.9% normal saline intravenously once in a week for two sessions. The expected undesirable effects of vincristine administration viz., decreasing in appetite, vomiting, diarrhoea, neutropenia and diffuse alopecia as stated by reported by Marcos *et al.*[8] and Preamsairam *et al.* [10] were not reported in the present case that might be due to supplementation of oral Hematinics and Multivitamin syrups.

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