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Dr. A Mounika

Veterinary Surgeon, Happy Tails

Pet Care Clinic, Anantapur,

Andhra Pradesh, India

Therapeutic management of TVT in dog

A Mounika

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Abstract

An eight year old intact female Labrador dog was presented to the clinic with history of vaginal bleeding, prolonged oestrous, decreased appetite since one month. Upon complete physical examination the dog was noticed with palpable mass at the level of vagina. FNAC confirmed as TVT. Dog treated with vincristine sulphate at weekly intervals for two weeks. Although severe side effects observed after second dose of vincristine, dog made an uneventful recovery.

Keywords: TVT, vincristine, fine needle aspiration cytology

1. Introduction

Canine transmissible venereal tumour is common round cell tumour that spreads from one dog to other during coitus. Young sexually active especially stray dogs are more commonly affected. Affected dogs mostly exhibit pain, loss of appetite and serosanguinous discharge from external genitalia and also show Cauliflower like mass, red to flesh coloured in appearance ^[1]. Definitive diagnosis of disease can be made by cytological and histological findings. Treatment options include chemotherapy, surgical excision and radiotherapy. Objective of current paper is to review the therapeutic management of TVT case presented to the clinic.

Case history and clinical observations

A six years old intact female Labrador dog presented to the clinic with complaint of prolonged vaginal bleeding, decreased appetite since one month. Physical examination revealed reddish round nodular mass hanging at the level of vagina with sero sanguineous discharge, offensive odour and swollen vulval lips (fig 1). FNAC of the mass confirmed numerous round cells with neoplastic features and neutrophilia might be due to inflammation at the affected site (fig. 2 & 3).



Fig 1: Dog with round round nodular mass at vulval lips.

Corresponding Author:

Dr. A Mounika

Veterinary Surgeon, Happy Tails

Pet Care Clinic, Anantapur,

Andhra Pradesh, India

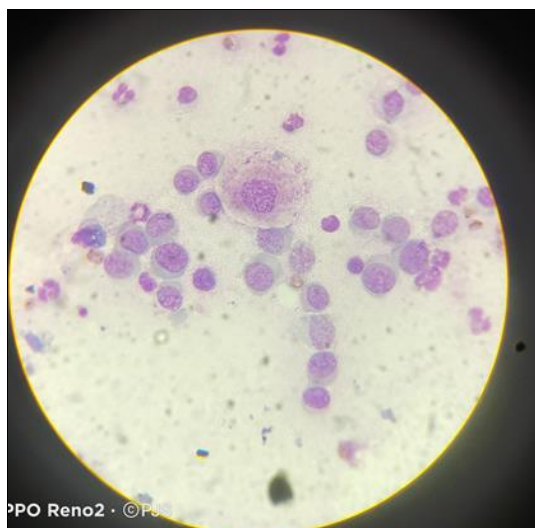


Fig 2: impression cytology of mass depicting round cells with cytoplasm having vacuoles.

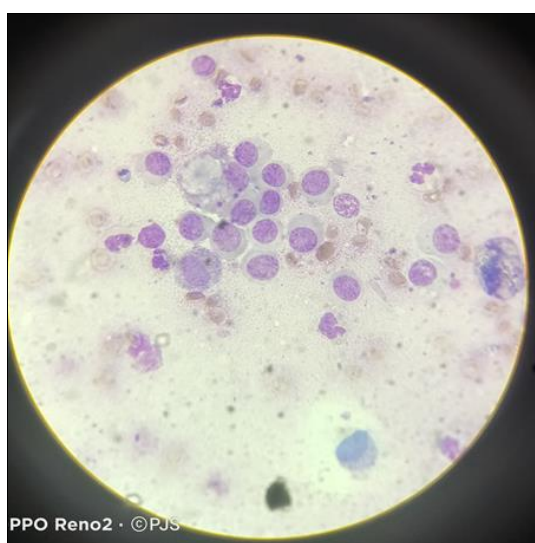


Fig 3: cytology showing numerous round cells and mitotic figure.

Treatment and Discussion

Upon confirmation and consent from owner treatment with vincristine sulphate was started @ 0.025mg per KG bodyweight intravenously at weekly intervals along with inj: Amoxicillin @11mg per KG bodyweight for 5 days.

Almost 70% regression of tumour mass was noticed within one week after chemotherapy. Complete regression was noticed after second dose administration of vincristine. Side effects like diarrhoea, vomiting, and appetite loss was reported after second dose administration and no recurrence was noticed after chemotherapy.

Clinical history, signalment and cytological features are often obvious for establishing a diagnosis though biopsy and histological examination may be needed in atypical cases [2].

FNAC is a rapid and practical diagnostic procedure in veterinary clinical setting with accuracy of cytological diagnosis is substantially higher in round, mesenchymal cells compared with other types of cells and also yields high sensitivity, positive predictive values for diagnosing malignancy; that would be sufficient for veterinary clinicians to schedule further treatments [3].

Dogs do tolerate Vincristine administration well and considered as the treatment of choice, with the majority of them being cured. Fewer than 15% of treated dogs experience drug-related side effects as seen in present case, in accordance

with findings of [4]. Even in the case of metastasis, the cure rate is over 90% [4].

Disadvantages of chemotherapy like nausea, weight loss, anorexia and vomiting are potential, but uncommon, side effects. Death, although a rare occurrence, has been reported [5].

Conclusion

Trans vaginal tumour is common round cell tumour in canines. FNAC is simple reliable tool that is sufficient to start the chemotherapy. Treatment with vincristine sulphate alone yields better result at field level as the surgical excision has certain limitations with anatomical location of tumour masses. Although certain side effects are common with chemotherapy but that can be managed medically as a supportive therapy along with the treatment.

Conflict of Interest

Not available.

Financial Support

Not available.

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