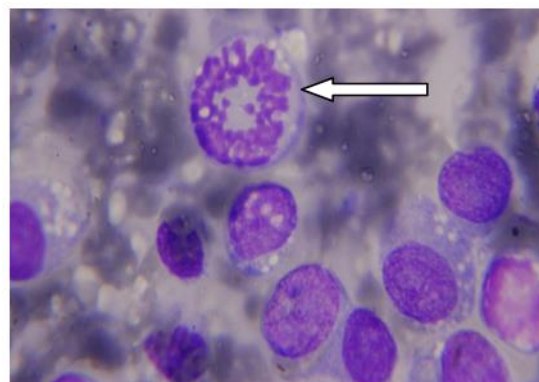


Genital and extra genital TVT in a bitch- a case reportM. Raghunath¹, Ch. Sudha Rani Chowdhary², P. Vidya Sagar³ and P. Ravi Kumar⁴¹Associate Professor & Head, Dpt. of. TVCC, ^{2,3}Assistant Professor, TVCC, ⁴Assistant Professor, Dept. of Surgery & Radiology, Teaching Veterinary Clinical Complex, N.T.R. College of Veterinary Science, SVVU, Gannavaram, Krishna (Dt), Andhra Pradesh, India -521301***Corresponding Author****Name:** P. Vidya Sagar**Email:** doctorpentyala@gmail.com**Abstract:** This communication reports cytological, histopathological findings and therapeutic management of genital and extra genital TVT in a four year old crossbred bitch.**Keywords:** Transmissible venereal tumor, genital, extra genital, cytology, Histopathology, Vincristin.**INTRODUCTION**

Transmissible venereal tumor is one of the most common round cell tumors occurring in canines. Transmissible venereal tumour (TVT), also known as infectious sarcoma, venereal granuloma, transmissible lymphosarcoma or sticker tumour is a reticuloendothelial tumour of the dog that mainly affects the external genitalia and occasionally the internal genitalia (Goldschmidt and Hendrick, 2002). In general, TVT is located on the penis or praeputium in males and in females present on the vagina or labia. The present paper describes a case of concurrent occurrence of both genital and extra genital forms of TVT in a dog.

CASE HISTORY AND CLINICAL OBSERVATIONS

A 4 year old crossbred bitch was presented to the Teaching Veterinary Clinical Complex, NTR College of veterinary science, Gannavaram with a history of vaginal bleeding since two months. Physical examination revealed a circumscribed, elliptical, soft growth in the vagina (2-3 cm in diameter) (Fig.1) and a smooth, soft, elliptical mass attached to the gingiva in the oral cavity (0.5-1cm diameter) (Fig.2).

**Fig-1: TVT mass in the vagina.****Fig-2: TVT mass in the oral cavity attached to the gum in the upper jaw.****Fig-3: Impression cytology of extra genital TVT mass showing neoplastic cells with punctuate cytoplasm and mitotic figure. Leishman's stain, 100X.**

Impression smears of both the tumor masses were collected and stained with Leishman's stain. Cytology revealed sheets of round to oval cells with intracytoplasmic vacuolation, cytoplasmic basophilia,

round nuclei with prominent nucleoli and mitotic figures (Fig.3). The cells were predominantly plasmacytic type with eccentric nucleus. Incisional biopsies of both the tumor masses were collected and processed for routine histopathology and stained with H& E. Histopathology revealed sheets of round individual cells containing round vesicular nuclei, the borders of which could not be easily differentiated. The cells were situated in an arborizing fibro vascular network. A distinct single nucleolus with dispersed chromatin and mitotic figures was noticed with scanty stroma. There was an infiltration of lymphocytes, plasma cells and few macrophages. Based on the cytology and histopathology, the case was diagnosed as genital and extra genital TVT.

TREATMENT AND DISCUSSION

The animal was administered Inj.Vincristine sulfate @ 0.025mg/kg b.w at weekly interval and inj. Ranitidine @ 0.2mg/kg bwt and inj. Amoxicillin @ 11mg/kg bwt for 5 days. Marked reduction in the size of both the tumors after 5 cycles of treatment was observed.

Complete surgical excision, radiation therapy, and chemotherapy are effective treatments FOR tvt but surgical excision often cannot be achieved because of the anatomic location of many of these tumors. Recurrence is likely in such cases unless adjunct radiation or chemotherapy is used. However, in the present case chemotherapy is considered as the treatment of choice and found to be effective. No reoccurrence was reported after the chemotherapy.

Transmissible venereal tumor (TVT) occurs naturally on the genitals of both male and female dogs. It is most commonly spread during mating but can also be spread during routine sniffing or other physical contact between an existing tumor on one dog and abraded skin on another resulting into development of extra genital TVT. In the present case, extra genital TVT might have occurred due to licking of its own genital TVT or may be from another animal. In the present case, plasmacytic type of cells were predominantly seen on cytological smears in extragenital TVT which is in accordance with findings of Amaral *et al.*, [1]. Extragenital TVTs were also reported in the nasal and oral cavities, skin[2], subcutaneous tissue[3] and mammary gland[4] in canines. Extra genital TVT occurs in the nasal or oral cavity, skin and conjunctival mucosa with genital TVT, probably as a consequence of social behaviors [1,5-7].

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