

MAMMARY GLAND TUMOUR IN A 8-YEAR-OLD DOG- A CLINICAL CASE

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ABSTRACT

An 8-year-old female cross breed dog visited to Veterinary Clinical Complex, Rajendranagar with the history of gradual growth at 5th mammary gland and clinical signs of severe pain, pyrexia and inappetence for one month. Further, hematological, serum biochemical studies were carried out in the pet. Further, biopsy sample was collected from affected dog for confirmation of the tumour and the case was advised for surgical removal of the tumour and ovarian hysterectomy.

Key words: Histopathology, Mammary gland tumour, Ovarian Hysterectomy.

INTRODUCTION

The most prevalent canine neoplasms are tumors of the mammary glands. They make for 25–50% of all tumors found in bitches. Following excision, metastatic and recurrent cancers appear in roughly 35-70% of bitches. In cases of mammary gland cancers, the occurrence of

regional lymph node metastases is a significant determinant influencing prognosis and treatment [3]. With an increased risk between 8 and 11 years of age, mammary tumour often affect older and middle-aged canines. In addition, dogs between the ages of 7 and 9 are more likely to have benign tumors than malignant ones, but



examination from the affected bitch and sent for laboratory. The hematological and serum biochemical parameters were estimated by using VET-IDEXX equipment on the same day of collection.

Fig. 1. Presence of mammary tumor at the level of 5th mammary gland

older dogs are more likely to develop malignant tumors. The surgical techniques done, namely mastectomy and ovariectomy, have a considerable influence on the mortality of female dogs with mammary tumors. More than half of female dogs undergoing partial mastectomy for mammary tumors may develop a new tumor, however sterilization prior to surgery dramatically reduces such recurrences [1, 2].

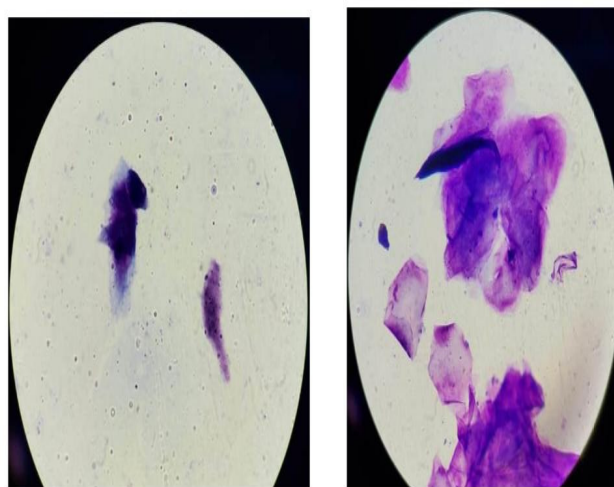
MATERIALS AND METHODS:

A female dog presented to private clinic with the history of mammary gland swelling formed as basis of the present investigation. Whole blood, Serum sample and biopsy samples were collected in investigation. About 2 ml of blood was taken from cephalic vein in a vacutainer with EDTA for complete blood picture analysis and 5 ml of blood was collected for serum extraction in clot activator vacutainer and 10 grams of the tumor tissue was collected for histopathological

RESULTS AND DISCUSSION

Hematological examination revealed elevated WBC counts and granulocytes while serum biochemical parameters revealed elevated ALT, AST and ALP levels while rest of the parameters being normal. Histopathology revealed large squamous epithelial cells which are polygonal and angular in shape with low nuclear cytoplasmic ratio and round hyperchromatic and centrally placed, which is suggestive of a papilloma.

Dog with mammary tumour revealed elevated WBC, AST, ALP, and ALT. Leukogram of



mammary tumour affected dog revealed insignificant elevation of WBC count, which

SL. No	Parameter	Healthy dog	Affecte d dog
1	Hemoglobin (G/DL)	37.5-55.0 (G/DL)	40.9
2	WBC (K/UL)	6.0-16.9 (K/UL)	24.80
3	%NEUTROP HILS	2.8-10.50	9.2
4	%GRANUL OCYTES	3.0-12.00	18.8
5	PLATELETS (K/UL)	175-500 (K/UL)	257
6	CREATININ E (MG/DL)	0.5-1.8 (MG/DL)	0.7
7	ALT (U/L)	10-125 (U/L)	656
8	AST (U/L)	0-502 (U/L)	750
9	ALP (U/L)	23-212 (U/L)	742
10	UREA (MG/DL)	7-27 (MG/DL)	8

indicates the possibility of secondary bacterial

Fig .2. Histopathology of mammary tumour infection in mammary tumour affected dogs [4,6]. The present serum biochemical results showed elevated ALT, AST and ALP. The dogs with mammary tumour showed elevated liver enzymes

[6]. Histopathological examination revealed benign mammary gland papilloma. Duct

papilloma is common benign tumor in female intact dog [5]. The case was further advised for surgical removal of tumour and ovarian hysterectomy as it is an intact female.

Table 1. Hematological and Serum biochemical parameters in Mammary gland tumour

CONCLUSION

As mammary gland tumours are very common in female intact dogs, early sterilization is recommended in all the female dogs before 1 year to avoid the prevalence of mammary gland tumours in dogs.

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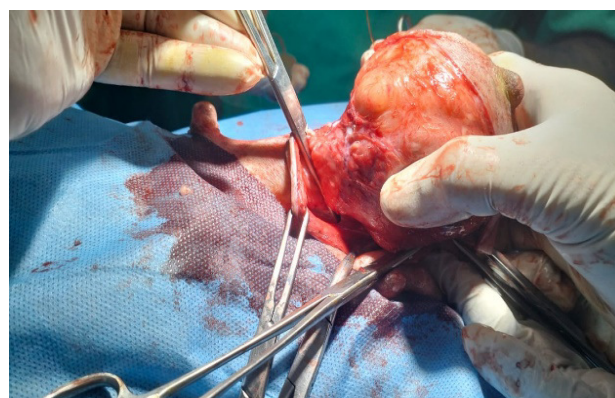


Fig 3. Surgical removal of mammary gland tumour

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