

FIBROADENOMA OF CANINE MAMMARY GLAND - A CASE REPORT

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Introduction

Canine mammary gland tumors are the second most common type of neoplasm observed in middle aged females (Laing, 1988) with tendency to metastasized. They are said to be hormone dependent and mostly seen in intact females. They may persist, grow and metastasize to regional lymph nodes and occasionally to lungs, liver and other organs ((Lacroix and Hoskins, 1952; Nelson *et al*, 1972). Various therapeutic modalities have been suggested, chemotherapy, cryosurgery, immunotherapy, hypothermia and use of biologic response modifiers being new modalities of cancer therapy (Riley and Riley, 1982). However, surgery remains the mainstay treatment for most of the mammary tumors. A case of mammary fibroadenoma in a Spitz bitch is presented.

History

A Spitz bitch of about seven years was presented with a large lump at the ventral abdomen since last six months, the lump gradually increasing in size and difficulty in walking. Clinical examination revealed normal temperature, and a mammary tumor in left inguinal gland. The tumour was about 6" x 4" in size and had smooth appearance. Plain lateral radiograph was taken to explore the possibility of lung metastasis whereas abdominal ultrasound was also performed to

rule out possible metastasis in abdominal organs. However, both the examinations did not reveal any significant findings. It was decided to undertake radical surgery for inguinal mammary tumour.

Treatment

The bitch was sedated with Diazepam @ 1 mg/kg body weight intravenously and premedicated with Atropine sulphate 1 ml and Betamethasone 1 ml intramuscularly. Surgery was performed under dissociative anaesthesia with Ketamine hydrochloride @10 mg/kg body weight intravenously. An elliptical incision was taken over the tumour mass including the inguinal mammary gland. The skin was separated from the tumour mass and the blunt dissection was carried out beneath the tumour. The lymphatic channel was ligated cranially whereas the lymphatic vessels draining the gland towards the inguinal lymph node were separated along with the inguinal lymph node. The entire tumour mass along with the gland and inguinal lymph node. Haemorrhage was controlled by ligating the vessels. The subcutis and skin incision was closed in routine manner. Post-operatively inj. Ceftriaxone 250 mg was given intramuscularly twice a day for 5 days and inj. Diclofenac Sodium 1 ml for 2 days . The patient responded well to the treatment and recurrence was not reported during six months postoperative follow-up. The histopathology of the tumour mass revealed fibroadenoma of the mammary gland.



Fig. 1: Inguinal mammary tumour

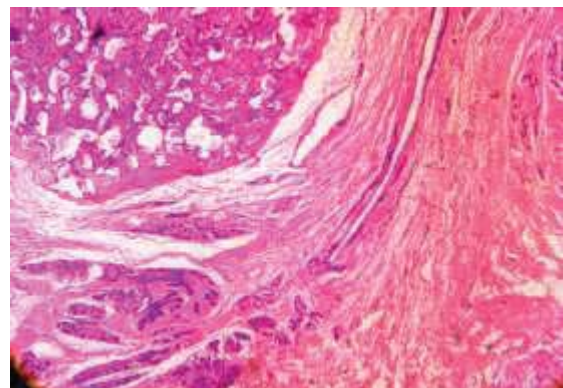


Fig.2 :Histopathology showing fibroadenoma of mammary gland.

Discussion

The tumours of the mammary glands are commonly observed in adult dogs intact females being affected mainly. Amongst the all glands involved, the caudal and inguinal mammary glands are more often affected than cranial glands (Else and Hannat, 1979). Bastan and Kaymaz (1999) observed that caudal mammary glands and inguinal glands being more pendulous were associated with repeated trauma and therefore were mostly affected. In the present report also, the inguinal gland was found to be involved. According to Hoffer (1974) canine mammary gland tumours are usually malignant with every one tumour out of four having tendency for metastasis. Aiello (1998) opined that all mammary neoplasm should be regarded as potentially malignant regardless of size and number. However, in the present investigation, the plain radiograph and abdominal ultrasound did not reveal metastatic lesions. The posterior lymphatic vessels along with inguinal lymph node were resected out to rule out any possibility of extension of tumour cells elsewhere. Further, the histopathological studies confirmed the tumour as fibroadenoma, a benign tumour. The recurrence was not observed for a period of six months observation.

References

- Aiello, S.E.(1998) *The Merck Veterinary Manual*. 8th edn. pp. 1043-45. Merck and Co. Inc., N. J., USA.
- Bastan, A. and M.Kaymaz (1999) Mammary tumors in dogs. *Veteriner Hekimler Dernegi Dergisi*, 70: 40-44.
- Else, R.W. and Hannat, D. (1979) Some epidemiological aspects of mammary neoplasia in the bitch. *Vet Rec* 104 : 296-304.
- Hoffer, R.E. (1974). Skin and Adnexa, Burns. In *Canine Surgery II*. Ed. (ed Aechibal -d, J.) American Veterinary Publication -s Inc, California. pp.107-138.
- Lacroix, J.V. and H.P. Hoskins (1952). The Mammary Gland. In : *Canine Surgery III* ed. American Veterinary Publications, Evanston.pp 504-521.
- Laing, E.J. (1988). Canine Mammary Tumor. In *Decision making in Small Animal Soft Tissue Surgery* cited by Binnington, A.G. and Cockshut, J.R., B.C.Decker Inc. Toronto. Pp.178-179.
- Nelson, L.W.; W.W. Carlton and , J.H. Weikel Jr.(1972).Canine Mammary Neoplasms and Progestogens. *J.Am.Med Assoc.* 219(12):1601-1606.
- Riley, J.H. and M.G .Riley. (1982) Metastatic mammary carcinoma treated with cytotoxic drugs. *Vet. Rec.*, 111: 8-11.
