SURGICAL MANAGEMENT OF UNUSUAL MAMMARY TUMOUR

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Introduction

Mammary gland tumours are the most common type of tumours reported in female dogs followed by skin tumours (Neruker *et al*., 1989; Benjamin *et al*., 1999) Clinically, canine mammary tumours occur either as single or multiple nodules, and, if multiple, can be of the same or different histological types. Grossly they vary from well-circumscribed nodules with stationary growth to large and sometimes ulcerated nodules, which grow rapidly and become fixed to adjacent tissues. The initial diagnosis of canine mammary tumours is based on clinical signs and symptoms (Hellmen and Lindgren, 1989), histology is necessary for an accurate diagnosis (Allen *et al*., 1986). Malignant canine mammary tumours are more frequent than benign ones (Brodey *et al*., 1983; Shekhar *et al*., 2001; Reddy *et al*., 2009).Mammary tumours can metastasize usually to axillary and superficial inguinal lymph nodes (Fidler and Brodey, 1967; Hellmen *et al*., 1993).

Case history & observation

A non descript intact female dog aged about 10.5 years and weighing approximately 13 kg was brought for a football size swelling on the ventral abdomen. Anamnesis revealed gradual increase in the size of swelling in several months. The swelling gradually increased in size to extent of mechanical hindrance in walking due to its large size. Clinical examination revealed the case as mammary tumour with ulceration.

Figure 1: Gross appearance, marked ulceration and large size of tumour Figure large size of tumour **Figure 2: Removed large sized mammry tumour**

Surgical management

The dog was premedicated with Atropine sulphate @ 0.04mg/kg i/m and Xylazine HCL @ 1.5mg/kg i/m. The general anaesthesia was maintained by Ketamine administration @ 8-10 mg/kg intravenously. Dog was restrained on dorsal recumbency and the surrounding area was prepared for aseptic surgery. A curved incision was given and deepened by blunt dissection. The vessels were ligated and cautary also used for control of haemorrhage. The growth was completely excised and all the necrosed area were freshened.

The entire area was applied with povidone iodine and metronidazole topical solution. The muscles were sutured with the help of 1/0 vicryl. The available subcutaneous tissue and thereafter skin edges were approximated with 1/0 vicryl and cruciate black

braided silk No. 1 suture respectively. The routine dressing with antibiotic coverage (Ceftriaxone @ 250mg I/M, OD for 5 days) with fluid therapy for 5 days recovered the case without any complication.

Discussion

Tumours of the mammary gland in female dogs represent up to 42% of all tumours (Johnson 1993; Dorn *et al.* 1968). Higher incidence was found after the 6th year of age with the maximum being 9 to 11 years. As also reported in the present case. Increased incidence of mammary tumours was found in many large as well as smaller breeds of dogs. The lowest occurrence was found in mongrels, Boxers and Chihuahuas (Dorn *et al.* 1968; Brodey et al. 1983; Cohen *et al.* 1974). While the present case was a nondescript female. Spayed dogs had a 3 to 7 times lower incidence of mammary tumours than the intact ones (Mulligan 1975; Priester 1979; Hahn *et al.* 1992; Alenza *et al*. 2000) as also reported in present case where intact female suffer. The huge size of tumour was reported because of negligence of the owner which increases the risk and complications while the case recovered uneventfully.

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