Surgical Management of Vaginal Tumor in a Non-Descript Bitch: A Case Report

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Abstract

A 10 years old non-descript female dog was presented to the Veterinary Dispensary, Nallampalli, Dharmapuri, Tamilnadu with the history of difficulty in urination and defecation and with a large mass protruding from the vagina for past six months and it was increasing in size day by day. On clinical examination, the animal was found to be dull and depressed, having pale pink conjunctival mucous membrane with rectal temperature of 38.9, and had an oval, solid mass of 10 cm length and 2 cm diameter weighing around 100 gm approximately. The haematological and biochemical profiles were within normal limits. Radiographic examination revealed oval shaped large soft tissue mass with dorsal adhesion. After proper investigation and diagnosis, the bitch subjected to surgery. The animal premedicated with atropine and xylazine and general anaesthesia induced with xylazine and ketamine combination and ketamine used for maintenance. The bitch stabilized with 0.9% NaCl isotonic solution intraoperatively. Surgical correction performed by total resection of the tumor mass. Post-operatively animal brought under antibiotic coverage and the owner advised to spay the dog to reduce recurrence of the tumor. The animal recovered uneventfully.

Keywords: Vaginal tumor, Bitch, General anaesthesia, Surgical excision.

1. Introduction

Neoplasia of female reproductive system in dogs is more common in vagina and vulva, as compared to uterus and ovaries (Susaneck, 1981; Barrett and Theilen, 1977). Tumors of tubular genital tract of female accounts for 3% of all canine tumors and of this 85-90% occur in vulva, vagina and vestibule (James and Donald, 2012; Atlee et al., 1991; Moe and Lium, 1997; Noakes et al., 2009). Vaginal tumors are the second most common canine female reproductive tumor, after those of the mammary gland. Neoplasia of vagina and vulva are usually benign and possesses a good prognosis (Joanna and Jane, 2001). Vaginal tumors most commonly found in intact female dogs between 2 to 18 years of age (average age, 10.8 years). The incidence of these tumors is higher in nulliparous bitches. One study found that the boxer to be at increased risk of tumor over other breeds. Malignant tumors often have a poor prognosis due to high rate of recurrence as well as metastasis, necessitating surgery and in some cases adjuvant chemotherapy. It is an important to determine the type of tumor and differentiate between malignant and benign tumors preoperatively in order to judge patient’s prognosis and in designing therapy (Simon et al., 2009).

2. Case Details, Diagnosis and Treatment

A 10 years old non-descript female dog was presented to the Veterinary Dispensary, Nallampalli, Dharmapuri, Tamilnadu with the history of difficulty in urination and defecation and with a large mass protruding from vagina for past six months and it was increasing in size day by day. On clinical examination, the animal was found to be dull and depressed, having pale pink conjunctival mucous membrane with rectal temperature of 38.9, and had an oval, solid mass of 10 cm length and 2 cm diameter weighing around 100 gm approximately. The haematological and biochemical profiles were within normal limits. Radiographic examination revealed oval shaped large soft tissue mass with dorsal adhesion. After proper investigation and diagnosis, the bitch subjected to surgery. The animal premedicated with atropine and xylazine and general anaesthesia induced with xylazine and ketamine combination and ketamine used for maintenance. The bitch stabilized with 0.9% NaCl isotonic solution intraoperatively. Surgical correction performed by total resection of the tumor mass. Post-operatively animal brought under antibiotic coverage and the owner advised to spay the dog to reduce recurrence of the tumor. The animal recovered uneventfully.
Fig 1: Vaginal tumor.

Fig 2: Radiographic image of tumor mass.

Fig 3: Skin incision on the mass.

Fig 4: After surgical correction of vaginal tumor.

Post operatively Inj. Cefotaxime @ 20 mg/kg intravenously and Inj. Meloxicam @ 0.2 mg/kg intra muscularly administered for 3 days. The skin suture was removed 10th postoperative day and the owner advised to spay the dog to reduce recurrence of tumor. Postoperatively, animal recovered uneventfully.

3. Discussion

Vaginal neoplasms are second most common neoplasm occurring in bitch after those of mammary tumor. Vaginal tumors usually seen in older bitches. Benign smooth muscle tumors, such as leiomyoma and fibromas, comprise most vaginal tumors. In canine, the exact causes of canine vaginal tumors are unknown with the exception of canine transmissible venereal tumor (Umamageswari et al., 2016). Some reports suggests steroidal hormone play a role in the pathogenesis of tumor and its reoccurrence too. The most common complications are accidental injury to nearby organs and iatrogenic damage to urethra (Kang and Holmberg, 1983). Catheterization of urinary bladder will assist in avoiding these complications. Smooth muscle tumor of the lower reproductive tract (i.e. Vagina, vestibule and vulva) in bitch is mainly due to hormonal imbalance (Brodey, 1967). These tumors do not cause infertility rather they interfere with the mating and whelping process. Here in this case also we go for surgical excision of the tumorous mass, there is no signs of development of new tumorous tissue at the surgical area.

4. Conclusion

In dogs, Tumor size, clinical stage, type and grade of tumor determines the prognosis after surgery. Dogs can live several years after complete removal of some malignant tumors. Therefore, once a mass found, having surgery to remove it earlier is better. Here the dog affected with vaginal tumor recovered uneventfully after surgery.

References


