

Clinical Article

SURGICAL MANAGEMENT OF VAGINAL LEIOMYOMA IN BITCH

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Abstract: Vaginal tumors are more common in bitch as compared to tumor of upper reproductive organs. Present case reports a successful surgical management of leiomyoma in bitch. A seven year old recently whelped bitch was presented in clinics. According to history, whelping takes place 10 days ago and dystocia was there due to interference of tumorous mass. After sedating the animal surgical resection of the tumorous was done. Animal recovered uneventfully with no relapse of tumorous growth on the incision site.

Keywords: Leiomyoma, Nodules, Surgical resection, Hormonal.

Introduction

Neoplasia of reproductive system in bitch is more common in lower reproductive tract i.e. vagina and vulva, as compare to uterus and ovaries. General classifications of tumors are done on the basis of the site of occurrence as: those arising from ovaries and other arising from tubular genital tract [Susaneck, 1981; Barrett and Theilen, 1977]. Neoplasia of tubular tract is generally benign and possesses a fair prognosis [Joanna and Jane, 2001]. 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]. Tumors originating from mesenchymal tissue like leiomyomas, fibroleiomyomas and fibromas are more common in occurrence and may affect uterus, cervix or vagina. Benign mesenchymal tumors such as leiomyoma, fibroma or fibroleiomyoma are most common in the bitch and may affect uterus, cervix or vagina [Atlee et al 1991; Moe and Lium, 1997]. The prevalence of Leiomyomas in female genital tract is 2.4% of all canine neoplasia [Susaneck, 1981; Barrett and Theilen, 1977; Hulland, 1978]. Bitch with the age group of five to 16 are most susceptible to leiomyomas [Susaneck, 1981; Barrett and Theilen, 1977; Hulland, 1978]. The association of leiomyomas of the reproductive tract with that of estrogen secreting tumors or ovarian follicular cysts is well established by scientists. Other reproductive problems like Cystic endometrial hyperplasia,

mammary hyperplasia and/or neoplasia can sometime found along with Leiomyomas [Susaneck, 1981; Barrett and Theilen, 1977; Hulland, 1978;].

Case History and Observation

A seven year old Labrador bitch was presented in teaching veterinary clinical complex, GADVASU, Ludhiana, Punjab. There was foul smelling discharge from vagina and a red lobulated mass was protruding through it. Bitch parturated 10 days ago and mass was obstructing the vaginal passage. Physical parameters were near to normal range. Hematological parameter shows a slight variation with neutropenia, shift to left and anemia (Hb 6.79 gm/dl). The mass was having nodules of varying size and with shining red in color and pus flakes were coming out of vagina. The size of mass was approximately 5 cm in diameter. Animal was not having and difficulty is urination and defecation. Differential diagnosis of mass was done with vaginal fold prolapse and vaginal edema. As both these cases occur when estrous phase is near. Moreover the prolapse occurs from ventral floor of vagina, not in case of leiomyoma where the distribution was uniform. Owner was advised to go for surgical resection of the tumor mass.

Treatment

After giving preanaesthetic Atropine Sulphate @ .04 mg/kg S/C, animal was sedated using combination of Xylazine @ 2mg/kg B.W and Ketamine @ 10 mg/kg B.W. Catheterization of urinary bladder was done using sterilized urinary catheter. Preparation of the surgical site was done and the mass was cleaned. Incision was giving due concern to the urinary meatus and considering involvement of all tumorous part (Fig 1). The mass was exteriorized and underlying skin and tissue was sutured with the wall of vagina to give good aesthetic look (Fig 2). Douching of the uterus and vagina was done with mild Condy's solution (0.1% KMnO₄ Solution). Animal was put on antibiotic cover with Inj. Cefotaxin 325mg b.d I/V, Inj. Melonex 3 ml b.d I/M, Inj. Belamyl 3 ml b.d I/M, Inj. Chromostat 3 ml o.d I/M and Syrup Immunol 5ml P.O. This treatment was continued for five days and syrup was continued for 15 days. Sutures were removed after 14 days and bitch recovered uneventfully and did not develop any post-operative complications.

Discussion

In canine generally with the exception of canine transmissible venereal tumor, the exact causes of canine vaginal tumors are unknown [Umamageswari et al 2016]. Some scientist suggests steroidal hormone play a role in the pathogenesis of tumor and its reoccurrence also. In Human genital neurofibromas the expression of progesterone receptors has been reported.

In bitch, surgical excision of vaginal leiomyoma [Herron, 1983] and use of aglepristone in vaginal fibroma is curative in dogs [Rollon *et al.*, 2008]. Reoccurrence of the above condition are also reported due to hormonal influences. Accidental injury to nearby organs and iatrogenic damage to urethra are the common post-operative complications [Kang and Holmberg, 1983]. Catheterization of urinary bladder will assist in avoiding these complications. Hormonal imbalances are the main cause of smooth muscle tumor in bitch [Brodey, 1967]. These tumors do not cause infertility rather they interfere with the mating and whelping problems. Here in this case also we go for surgical resection of the tumorous mass and bitch was followed up after six months and there were no signs of development of new tumorous tissue at the surgical area.

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Figures

