SURGICAL MANAGEMENT OF VAGINAL PROLAPSE IN A NULLIPAROUS DOG

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[Received: 10.4.2017; Accepted: 23.10.2017]

The present communication puts on record surgical management of vaginal hyperplasia in a female dog in her first estrus. The case was misdiagnosed as venereal granuloma by referring veterinarian and it failed to respond to vincristine. Clinical examination revealed it to be vaginal hyperplasia and resection of the prolapsed vaginal mass was performed accordingly. The animal showed no signs of recurrence in the subsequent oestrus cycle.
Key words: Bitch, Surgery, Vaginal hyperplasia.

Vaginal fold prolapse is clinically manifested as protrusion of pear shaped edematous vaginal tissue into and through the opening of vulva in female dogs. The condition has been reported to occur mostly during proestrus and estrus stage and this oedematous swelling of the vaginal mucosa has been thought to develop under the influence of oestrogen (Johnston *et al.*, 2001). This condition is commonly referred as vaginal hyperplasia but it is uncommon in female dogs as compared to other vaginal disorders like neoplasm and venereal granuloma (Manothaiudom and Johnston, 1991). The condition has also been named as vaginal fold prolapse as it is hyperplasia and the tissue involved is extremely oedematous (Purswell, 2005).

Case History and Observations

A 10 months old Labrador bitch was presented with the history of vaginal mass being treated for venereal granuloma for last 04 weeks by referring veterinarian. The animal had already been administered with 4 doses of vincristine at weekly interval but it failed to check the oozing of blood from vaginal mass. Upon vaginal examination, a pear shaped mass of 3 X 4 cm size was visible arising from the floor of vaginal wall just below urethral opening. Clinical eaxmination of the animal revealed normal rectal temperature (101.6^{0}F), tachycardia (134 beats per minute) and tachypnea (32 breaths per minute). On the basis of history and clinical findings, the case was diagnosed as vaginal prolapse and surgical resection of the prolapse mass was planned accordingly.

Surgical Treatment and Discussion

The animal was anaesthetized using xylazine hydrochloride @ 1 mg/ kg body wt. i/m. followed 10 minutes later by ketamine hydrochloride @ 10 mg/kg body wt. i./m. With the animal restrained in sternal recumbency, hind limbs were draped over the end of padded table and secured properly. A purse-string suture was placed around the anal opening to avoid soiling of the surgical site. The tail and perineal region was prepared aseptically in routine manner. An episiotomy incision was given in routine manner and a urinary catheter was inserted into the urethra to prevent accidental injury to urethra. A curved needle threaded with PGA No. 1 was inserted into the prolapsed mass into all four sides at a distance of around 1.5 cm from the urethral orifice and the free ends of the respective threads were tightened segment wise by applying knot as tourniquet and tightened securely (Fig.1). The suture knot ends were held with help of artery forceps to avoid slippage and retraction of vaginal mucosa while incising the prolapsed mass. Circumferential excision of the mass was performed followed by suturing of the incised stump in simple interrupted pattern using PGA No. 1. The amputated stump was released slowly after removing the artery forceps holding the tourniquets. The urinary catheter was removed after completion of

episiotomy incision suturing in routine manner (Fig.2).

Postoperative antibiotic therapy comprised of ceftriaxone (20 mg/ kg body wt.) for 5 days and analgesic meloxicam (0.5 mg/kg body wt. i/m.) for 3 days. Antiseptic dressing with povidone iodine along with application of fly repellant spray twice daily was carried out for 10 days followed by removal of skin sutures on 12th day post-operatively. There was no evidence of recurrence of the vaginal prolapse during the follow up till next oestrus cycle.

Fig. 1: Transfixation of prolapsed vaginal tissue

Fig. 2: Completion of episiotomy procedure

Vaginal prolapse is most commonly observed during oestrogenic phase of oestrus cycle in sexually intact female dogs as also reported by Johnston (1989). But, true vaginal prolapse is reported to occur during parturition or immediate post-partum period as also reported by Schaefers-Okkens (2001). However, in the present case, the prolapse was seen in first estrus in a female dog and the prolapsed mass was excised due to reluctance of owner to wait for longer time for the mass to regress on its own.

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