A CASE PRESENTATION OF VAGINAL FOLD HYPERPLASIA IN A DOG

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A three year old female Labrador weighing about 38 kg was presented with a large mass protruding from the vulva. The history suggested that the animal was exhibiting proestral bleeding 20 days back. On clinical examination, the entire circumference of the vaginal wall was protruded through the vulvar labia. The glistening, pale pink protruded vaginal mucosa appeared severely enlarged and edematous giving it a doughnut shaped appearance. The mass was resected under general anaesthesia after the urethral orifice was identified on the ventral surface of the prolapsed tissue and catheterized and an ovario hysterectomy was performed a month after, to prevent recurrence.

Keywords: Dogs, Oestrus, Vaginal hyperplasia.

The vaginal mucosal hyperplasia occurs because of an accentuation of the estrogentic response of the vaginal mucosa (hyperemia, edema) normally seen during proestrus and estrus in the bitch (Soderberg, 1986). Vaginal hyperplasia is most frequently seen during the first estrous period and usually spontaneously regresses during the luteal phase. Recurrence is common during successive estrous periods. Vaginal hyperplasia usually occurs in young bitches during the follicular stage of the first to third estrous cycle. Affected bitches usually require artificial insemination, since the hyperplastic tissue tends to interfere with natural breeding. The hyperplastic state may also occur at parturition and interfere with normal whelping (Suresh et al., 2011). One or more folds of the vaginal mucosa protrude into the vaginal lumen and, when the expansion reaches its limits, it expands caudally over the urethral meatus (Rushmer, 1980). More often the floor of the vagina cranial to the urethral tubercle is involved, but on some occasions the entire vaginal mucosal wall is included (Rushmer, 1980).

Materials and Methods
A three year old female Labrador, weighing about 38 kg was presented to the Veterinary Dispensary, Srinivasapur (Karnataka), with a large mass protruding from the vulva (Fig.1. and Fig.2.). The history suggested that the animal exhibited proestral bleeding 20 days back. On clinical examination, the entire circumference of the vaginal wall (including urethral papilla) was visible through the vulvar labia, giving the exposed tissue a “doughnut” appearance. The glistening, pale pink protruded vaginal mucosa appeared severely enlarged and edematous. The protruding mass did not have any aberrations. Other clinical parameters like rectal temperature, heart rate and conjunctival mucous membrane were normal. Based on history and physical examination findings, the condition was diagnosed as a type III vaginal fold prolapse, a surgery was performed to resect the mass as it was displeasing to the owner.

The site was prepared aseptically and surgery was performed under general anaesthesia Thiosol (20% dilution), with preanaesthetic Inj. xylazine at 1.1 mg/kg BW and premedication Inj. Atropine sulphate at 0.04mg/kg, Inj. Tremadol at 4 mg/kg and Inj. Ceftriaxone 22mg/kg BW. A small incision was made over the protruded mass and the mass was excised circumferentially in order to maintain the vaginal cavity intact (Fig.4). A continuous lock stitch pattern suturing, with Catgut No. 1 was done. Prior to this, the urethral opening was identified on the ventral surface of the prolapsed tissue and catheterized (Fig.3). After resecting the mass (Fig.5 and Fig.6), the vagina was flushed with 5% povidone iodine solution. A ovario hysterectomy was performed by mid ventral approach a month after, to prevent possible recurrence in the subsequent cycle. Post operatively the dog was given oral antibiotics (Tab. Cefadur 500mg 1 ½ bid) for seven days.
consecutive days and the dog recovered uneventfully (Fig.7 and Fig.8).

**Results and Discussions**

Canine vaginal hyperplasia involves only the mucosa, which is different from the conditions seen in other species such as cattle, sheep and goat. In these species vaginal hyperplasia also occurs but the prolapsed mass often involves the entire vaginal wall and the bladder as well, as also reported by Franklin (1986). True vaginal prolapse mainly occurs during or shortly after parturition in canines, as also mentioned by Schaefers-Okkens (2001). In this case, protrusion of the vaginal fold occurred 20 days after proestrus, since the entire circumference of the vaginal mucosa had prolapsed (type III prolapse), and was less likely to resolve completely, surgical amputation of the mass was preferred. Medical treatment depends on the degree of hyperplasia, damage done to the mucosa, and whether one is dealing with a breeding or nonbreeding animal. If the mass is small or protrudes intermittently, it will usually shrink during diestrus and no further treatment is necessary as also narrated by Post et al. (1991). Surgical treatments consist of lacing of vulvar lips or surgical amputation as also
reported by Soderberg (1986).

Fig.7. and Fig.8. Five days post surgery

References