



Management of Vaginal Prolapse in a Bitch by Conservative Approach

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ABSTRACT

A 3 year old bitch presented at Veterinary Clinical Complex, OUAT, Bhubaneswar with a history of protruded doughnut-shaped bright red vaginal mass was undertaken physical, cytological, ultrasonographic and hormonal examination which confirmed vaginal prolapse in late pro-estrus stage of non pregnant bitch. Conservative approach of treatment by repositioning and suturing along with hormone, antibiotic therapy was carried out for management.

Key words: Doughnut, Estrus, Medroxy progesterone acetate

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INTRODUCTION

Vaginal prolapse, which originates from the ventral floor of the vagina, cranial to the urethral orifice is the protrusion of swollen, oedematous mucosal tissue through the vulva giving the exposed part a doughnut-shaped appearance. Although the surgical approach including amputation and/or spaying is the best clinical practice, sometimes, owners refuse any type of surgery to the reproductive tract, leaving the conservative approach as the only possible treatment.

CASE HISTORY AND OBSERVATIONS

A 3 year old indigenous bitch, weighing 15 kg, was admitted to the Veterinary Clinical complex of College of Veterinary Science and A.H., Bhubaneswar, with a 5-day history of vaginal prolapse and a 2-day history of mild anorexia. The vaginal fold protruding from the vulvar lips was doughnut-shaped (diameter 54.7 mm) and oedematous but

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without any necrosis or lacerations on its surface (Fig. 1). Palpation and ultrasonography of the everted protruding mass did not reveal any other organ except the vaginal mucosa confirming for vaginal prolapse. Other features like rectal temperature, respiratory rate, heart rate were within normal limits. Abdominal palpation and trans-abdominal ultrasonography revealed no foetuses in the uterine horns. Vaginal cytology and measurement of serum progesterone (P₄) concentrations were used to determine the stage of the oestrous cycle. A predominantly cornified vaginal smear and 2.4 ng/ml serum progesterone concentrations concluded the bitch to be in late pro-oestrus.

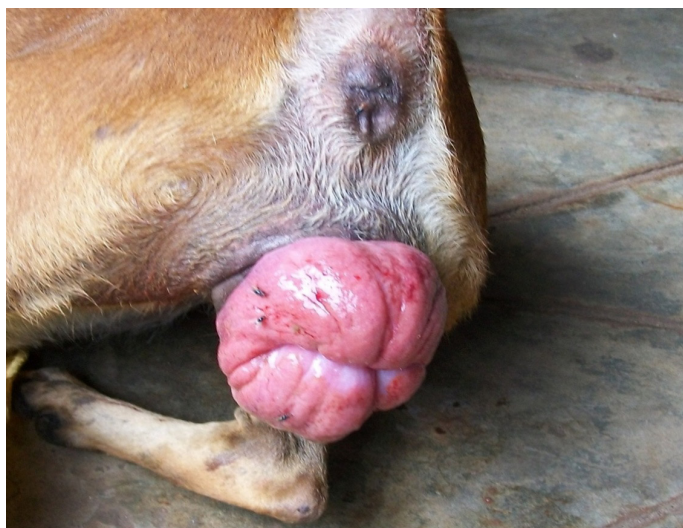


Fig. 1: Vaginal fold protruding from the vulvar lips of a bitch.

TREATMENT AND DISCUSSION

Since the bitch was intended for breeding, conservative approach was the only possible treatment. The prolapsed mass and the perineum were cleansed with normal saline. Ice application was done for 30-45 min. to reduce the size of protruded mass. Lignocaine and metronidazole jelly was applied over the protruded mass and was repositioned by giving gentle digital pressure. The vulvar lips were temporarily adapted using Trulon USP 2-0 (Nylon) retention non-absorbable suture by purse string suturing pattern with administering general anaesthesia (Fig.2). The suture was removed 2 weeks later. A course of antibiotics inj. amoxicillin + sulbactam sodium (Amoxirum Forte 300 mg @ 10 mg/kg im), inj. progesterone (Medroxyprogesterone acetate @ 0.1 mg/kg daily im) and inj. Meloxicam (Melonex @ 0.2 mg/kg im) were administered for 5 days and advised to use E-collar. Regression of the mass resulted after the end of follicular phase of the cycle without any recurrence.



Fig. 2: Retention suture after digital repositioning of the prolapsed mass.

Estrogen stimulated oedema of the peri-vaginal tissues, relaxation of the vulvar and peri-vulvar musculature along with associated tissues and inherited weakness of the peri-vaginal tissue cause vaginal prolapse. Other factors include tenesmus, forced extraction of the male during coitus and size discrepancy between breeding animals, in full term pregnancy (Konig *et al.*, 2004) combined with increased abdominal pressure due to ascites (Jaykumar *et al.*, 2016). With returning of serum estrogen level to normal basal level during early diestrus, the protruded mass regresses (Feldman and Nelson, 2004; Alan *et al.*, 2007). When using progestagens for vaginal fold prolapse, the treatment length and dosage are always very low, making side effects due to overdosing extremely unlikely (Sontas *et al.*, 2010). Raising serum P₄ concentration counteracts the effect of hyper-oestrogenism causing shrinkage of the prolapse of vaginal tissue. Use of human chorionic gonadotropin (hCG) 500 IU is also advocated for early ovulation to counteract the effect of high estrogen (Varudhrajana *et al.*, 2019).

CONCLUSION

In the present case, use of progestagens, medroxyprogesterone acetate at a lower dose of 0.1 mg/kg daily for treatment has been suggested because of their anti-oestrogenic effects. Conservative management of vaginal prolapse is always a better choice considering future breeding of a bitch.

CONFLICT OF INTEREST

None

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