

SUCCESSFUL MANAGEMENT OF VAGINAL PROLAPSE IN THREE BITCHES

M.S. Bawaskar¹, C.K. Lakde², D.S. Raghuwanshi³, A.P. Gawande⁴ and M.S. Patil⁵

¹Assistant Professor, ²Hospital Registrar (Contractual), ³Professor & Head, ⁴Professor, ⁵Assistant professor, Department of Animal Reproduction, Gynaecology and Obstetrics, Nagpur Veterinary College, MAFSU, Maharashtra, India.

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Frequently, vaginal fold prolapse is the protrusion of edematous vaginal tissue into and through the opening of the vulva occurring during proestrus and estrus stages of the sexual cycle. Three bitches, aging 2 to 3.5 years were taken for the present study. All the dogs were presented with vaginal prolapse at Veterinary Clinical Complex, NVC, Nagpur. The prolapsed masses were edematous, lacerated and hyperemic. By reducing the size and with bilateral pressure in all three bitches the prolapsed masses were reposed and retained with the application of Modified Buhner sutures. Hormonal therapy using hCG were given for three days. All bitches showed eventual recovery.

Keywords: Bitches, hCG, Recovery, Vaginal prolapse.

Vaginal hyperplasia is also known as vaginal fold prolapse, estrus hypertrophy, vaginal eversion and vaginal protrusion, which is the protrusion of edematous vaginal tissue into the vaginal lumen and often through the vulvar lips of the bitches (Clare M. Scully, 2023)..Vaginal hyperplasia is a crucial gynaecological problem that affects various breeds of bitches (Galal *et al.*, 2018). In the bitches, two conditions are described and are characterized with protrusion of vaginal tissue into and through the vulvar opening - vaginal hyperplasia and true vaginal prolapsed (Antonov *et al.*, 2023)

Vaginal prolapse usually occur in young bitch preferably less than 2 to 3 years age (Ahuja *et al.*, 2017).The actual cause of prolapse is unknown in bitches but it may be due to excessive relaxation and stretching of pelvic musculature, severe tenesmus and uterine disease, rough handling during parturition, genetic predisposition and aberrant connective tissue metabolism. During the proestral–estral phase of the canine cycle, estrogens may cause exaggerated vaginal hyperplasia that can protrude through the vulvar lips (Bucci *et al.*, 2022).

Almost 80 % cases of cervico-vaginal prolapse occurs in young bitches in their first three estrous cycles (Ajadi *et al.*, 2016) Therefore, present cases of a bitches suffered with vaginal prolapse and its successful clinical management is reported.

Case History and Observations

Three bitches, two Pugs and one Non Descript aging 2, 2.5 and 3.5 years and weighing 8.5, 7.5 and 15.7 kg were presented at Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur along with the hanging vaginal prolapsed masses, with the complaint that it was in estrus 2-3 weeks before. Physical parameters showed a slight variation as compared to normal like sub normal rectal temperature 98.5⁰F, 98.9⁰F and 98⁰F with congested mucus membrane. After carefully examining the masses it indicates the prolapse of vagina and its folds without the involvement of urinary bladder. On clinical examination the prolapsed masses was found slightly edematous, lacerated and hyperemic.

Clinical management:

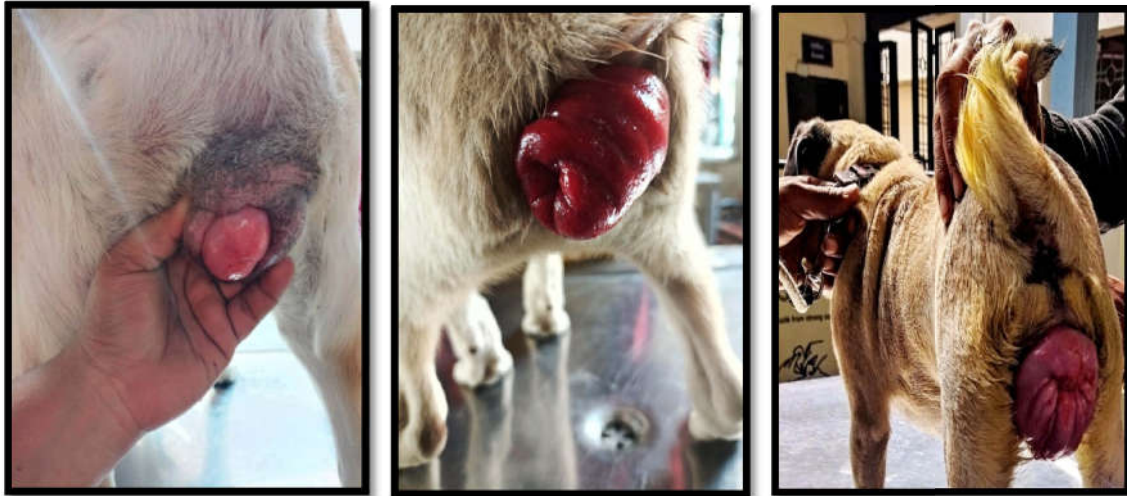
All the three bitches were given same management. Prolapsed masses were washed extensively with mild Potassium

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Permanganate solution (0.1 % KMnO₄) for dust and dirt removal. Then, applied the Lignocaine gel and Soframycin ointment topically on prolapsed mass to reduce the pain and prevent secondary bacterial

infection, respectively. Applied the bandage over the severely oedematous mass and given minimum traction as well as squeezed with palm pressure which helped in reduction in the size of mass.



A B C

Degrees of vaginal prolapse: A- Type II, B and C- Type III

Proper reposition and replacement was achieved by using 20 cm long glass tube having 3 cm in diameter along with bilateral pressure was applied by finger tips and palm to push the protruded mass in the pelvic cavity towards the ovarian end. Modified Buhner suture were applied through side of the external labia keeping an opening of one finger diameter between labia for the urination. This operation was performed under local anesthesia @ 2 ml of Lignocaine hydrochloride at lumbo-sacral epidural space to minimize the excessive straining along with Lignocaine gel and Soframycin ointment topically on prolapsed mass.

Female dogs were kept on antibiotic Inj. Ceftriaxone @ 15 mg/kg i/v, Inj. Meloxicam @ 0.2 mg/kg body weight s/c, Inj. Neurokind @ 5 mg/kg bodyweight, i/m along with fluid therapy and Syp. Immunolpet 5 ml p/o for five days. Apart from this hormonal therapy using Human chorionic gonadotropin (hCG) was administered intramuscularly daily for 3 days at a dose rate of 500 I.U to induce premature ovulation. Sutures were removed

on 10th day and all three bitches showed uneventful recovery.

Results and Discussion

Vaginal prolapse is a rather uncommon condition in the bitches. Vaginal prolapse usually occur during high serum estrogen concentration and is also connected with weakness of the perivulvar tissue of the bitch. An amplification of this high serum estrogenic response can lead to disproportionate mucosal folding of the vaginal floor just cranial to the opening of urethra, which ultimately results in protrusion of vaginal mucosa from the vulva as also reported by Varudharajan *et al.*, 2020. In the present cases, reoccurrence of prolapsed mass do not occur as the after the end of estrous phase.

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