

## Management Of Recurrent Vaginal Fold Prolapse In A Bitch: A Case Report

G.D. Singh<sup>1</sup>, Dushyant Yadav\*<sup>2</sup>, Alok Kumar<sup>3</sup>, Pallav Shekhar<sup>4</sup>, Vivek Kumar Singh<sup>5</sup> and J.K. Prasad<sup>6</sup>

### Abstract

A Primiparous bitch of pug breed 2 years old and 10 kg body wt has come to TVCC, Bihar Veterinary College, BASU, Patna with complaint of protrusion of vaginal fold from vulva since last 10 days showing the inflammatory and necrotic signs as well. As per the history the prolapsed mass was regresses automatically after a week of occurrence but reoccurrence was there with the straining at regular interval. The case was also handled by the local vet. After clinical examination it was found that the bitch was anorectic emaciated dehydrated dull & depressed with rectal temperature 101<sup>0</sup>F with protrusion of vaginal mass along with discoloration of prolapsed mass indicative of local hemorrhages and necrosis. For the management of prolapsed mass catheterization of urinary bladder was carried out by Foley's catheter to relieve urine from urinary bladder and then general anaesthesia was given (combination of Atropine sulphate @ 0.04 mg/kg Xylazine hydrochloride @ 1 mg/kg b. wt. i.m. followed 10 minutes later by Ketamine hydrochloride @ 10 mg/kg b. wt. i.m.). The protruded mass was thoroughly cleaned by using normal saline and diluted antiseptic solution along with the application of ice cube and herbal spray with Lignocaine Jelly over the entire surface. Then bilateral pressure (digitally) was applied to push the protruded mass inside the vulvar lips. After successive attempts repositioning of the mass into the vagina was done. To ascertain the reposed part remain inside the vagina modified Buhner's sutures was applied on the ventral commissure of vulva after posterior epidural anaesthesia. The bitch was given antibiotic cover along with laxative, calcium supplementation and multivitamins for one week and lastly administration of Luteinizing Hormone (LH) Hormone preparation was done (Chorulon @ 250 I.U. for 04 consecutive days by I/M route). Sutures were removed after one week and the bitch showed excellent recovery with no any reoccurrence reported.

### Introduction

Vaginal prolapse in bitches is the protrusion of edematous vaginal fold tissue into and through the opening of the vulva occurring frequently during proestrus and oestrus stages of the sexual cycle. An edematous swelling of the vaginal mucosa immediately cranial to the urethral orifice and expanding caudally over the urethral orifice and may develop under the influence of estrogen, McNamara (1997) and commonly seen due to prolonged labour (Arthur et al., 1996). True vaginal prolapse may occur near whelping, as the concentration of serum progesterone declines and the concentration of serum oestrogen increases (Konig *et al.*, 2004; Rani *et al.*, 2004). The condition mostly occurs in the young bitch during the first or second follicular phase under estrogen influence and may reoccur at each subsequent estrus. This condition has been traditionally referred to as vaginal hyperplasia and vaginal prolapse. However, because it is in fact not a true organ prolapse and hyperplasia and since the involved tissue is extremely edematous, it is better to use the term vaginal fold prolapsed, Purswell (2000). In exceptional cases, a vaginal fold prolapse may occur at the end of pregnancy. The present case is mainly for the correction of recurrent cervical vaginal prolapse by using better methods in bitch.

### Case Details

#### Case History & Clinical observation

A Primiparous bitch of pug breed 2 years old 10 kg b. wt has come to TVCC with complaint of protrusion

✉ [drgyandev26079@gmail.com](mailto:drgyandev26079@gmail.com)

Department of Veterinary Surgery and Radiology, BVC, BASU, Patna

Department of LFC (Veterinary Gynaecology and Obstetrics), BVC, BASU, Patna

Department of Veterinary Gynaecology and Obstetrics, BVC, BASU, Patna

Department of Veterinary Medicine, BVC, BASU, Patna

Department of Veterinary Clinical Complex, BVC, BASU, Patna

Dean, Bihar Veterinary College, BASU, Patna

of vaginal fold from vulva showing inflammatory and necrotic signs. As per the history the prolapsed mass was regresses automatically after a week of occurrence but reoccurrence was there with the straining at regular interval. The case was also handled by the local vet. After clinical examination it was found that the bitch was anorectic emaciated dehydrated dull & depressed with rectal temperature 101<sup>0</sup>F with protrusion of vaginal mass along with discoloration of prolapsed mass indicative of local hemorrhages and necrosis. The case was managed by vet by manually but the prolapsed was reoccurred within

24 hours. The bitch was showing moderate vaginal straining during the examination.

### Treatment and Management

For the management of prolapsed mass catheterization of urinary bladder was carried out by Foley's catheter to relieve urine from urinary bladder and then general anaesthesia was given (combination of Atropine sulphate @ 0.04 mg/kg Xylazine hydrochloride @ 1 mg/kg b. wt. i.m. followed 10 minutes later by Ketamine hydrochloride @ 10 mg/kg b. wt. i.m.) along with the antibiotic cover (Ceftriaxone @ 250 mg/kg,i/m), fluid therapy, analgesics (Meloxicam @ 0.5 mg / kg, i/m) and other supportive treatment. The protruded mass was thoroughly cleaned by using normal saline and diluted antiseptic solution along with the application of ice cube and herbal spray with Lignocaine Jelly over the entire surface of prolapsed mass. Then bilateral pressure (digitally) was applied to push the protruded mass inside the vulvar lips. After successive attempts repositioning of the mass into the vagina was done. To ascertain the reposed part remain inside the vagina modified Buhner's sutures using absorbable Catgut no. 2 was applied on the ventral commissure of vulva after posterior epidural anaesthesia. Similar technique has been used earlier for such cases, Slatter (2002); Fossum *et al.*, 2007). The bitch was given antibiotic cover along with laxative, calcium supplementation and multivitamins for one week and lastly administration of Luteinizing Hormone (LH) preparation was done (Chorulon @ 250 I.U. for 04 consecutive days by I/M route). Sutures were removed after one week and the bitch showed excellent recovery with no any reoccurrence reported. The basic cause of vaginal prolapse in sexually intact female is higher level of serum estrogen and poor nutritional status of animal and primarily seen during proestrus or early estrus stages of the cycle, Johnston (1989). Generally the vaginal prolapse regression is noticed at the end of estrus cycle automatically without any medication but recurrence is very common, Schutte (1967). However, in present case regression was seen with reoccurrence. Pre-partum prolapse also occurs due to relaxation of pelvic muscles and increased abdominal pressure Benesch and Wright (2001), severe tenesmus and uterine disease, rough handling during parturition, genetic predisposition, aberrant connective tissue metabolism etc. Ozyurtlu and Kaya (2007). In present case extreme tenesmus was also noticed which is a predisposing factor of reoccurrence of vaginal prolapse. The report says that vaginal fold prolapse seen in almost all breeds but brachycephalic breeds is highly susceptible, Wykes (1986). The basic purpose of using Luteinizing Hormone (LH) was to decrease the level of estrogen indirectly by leutinizing growing follicles.



**Before Treatment**



**After Treatment**

### Outcome

Successful management of vaginal prolapsed in the bitch was done after applying the Buhner's Suture technique along with the suppression of estrogen level by using the Luteinizing Hormone (LH).

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