



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.03
TPI 2019; 8(4): 654-656
© 2019 TPI
www.thepharmajournal.com
Received: 01-02-2019
Accepted: 02-03-2019

D Sarkar
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Chethana DH
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Sandeep KH
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Mahendra TH
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Rudresh GN
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Viswanath S
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

Correspondence

D Sarkar
Veterinary Gynecology &
Obstetrics, KVAFSU,
Bangaluru, Karnataka, India

A case report: necrotic cervico-vaginal prolapse with retroflexion of urinary bladder with secondary miasis in a bitch

D Sarkar, Chethana DH, Sandeep KH, Mahendra TH, Rudresh GN and Viswanath S

Abstract

A 4 year old, intact Spitz bitch weighing 12 kg with a mass outside from the vulvar lips seen by the owner described in this case report. At the examination the mass was examined, condition diagnosed as cervico-vaginal prolapse, necrotic part, along with secondary miasis and ultrasonography examination confirmed retroflexion of urinary bladder. Animal undergone surgery for necrotic cervico-vaginal prolapsed mass underneath of general anaesthesia. Here, it might be the 1st case report of necrosis, incidence of miasis in cervico-vaginal prolapsed mass. Here in this case report, describe the surgical excision of a cervico-vaginal prolapse with retroflexion of urinary bladder with secondary miasis and successful reproduction following estrous.

Keywords: Cervico-vaginal prolapse, miasis

Introduction

Protruding out of any body part or organ to the external environment or another cavity from its natural anatomical position known as prolapse. Vaginal prolapse, the pathological condition generally been seen in case of vaginal mass development, neoplasia of vaginal or urethra (Manothaiudom and Johnston, 1991) [6], vaginal benign tumors (Williams *et al.*, 2005) [16], trauma (Arbeiter and Bucher, 1994, Sananmuang *et al.*, 2017) [1, 14]. In other cases, during proestrus and estrus stages of the sexual Cycle due to the rise of estrogen causing vaginal hyperplasia and vaginal prolapse, but it is generally rare, instead can be expressed as genital fold prolapsed and true prolapse generally occur pre-partum (few days before whelping) or post-partum when the progesterone concentration decline and concentration of estrogen increase. (Purswell, 2000; Johnston *et al.*, 2001; Konig *et al.*, 2004; Rani *et al.*, 2004, Okkens, 2001) [12, 4, 11, 13, 5]. Vaginal prolapse generally not been seen in middle of the gestation and in normal pregnancy because of higher serum progesterone and lower estrogen and its also rare pregnancy (Johnston *et al.*, 2001; Okkens, 2001) [4, 11]. Incident when complete exteriorisation of cervix done when the cervix completely prolapsed neither partial exteriorisation done as per Wykes, 1986 [17]. The complete prolapsed of cervix is rare (Okkens, 2001) [11] and suspected for breed disposition especially brachycephalic breed, Drahthaar, Kurzhaar, Caucasian Shepherd, Doberman (Wykes, 1986, Feldman *et al.*, 2004, Mostachio *et al.*, 2007) [17, 3, 10]. According to Purswell, 2000 [12], constipation, forced separation during coitus, disproportionate size of breeding male and bitch may cause prolapse.

Case History

Case history and observation: A five year old 18 kg Spitz bitch was presented in the Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Hebbal, Bangalore, with the history of inappetance, dull, constant straining, assisted whelping ten days ago by owner itself as he was taking out a dead fetus by pulling by its hind leg after a hour of waiting and mass protruding out from the vulva since almost one week with constant oozing out of bloody colour discharge and became blackish in appearance since three days, yellowish colour of urine, difficulty in urination, and few small maggot type also been observed by the owner.

Physical examination of the animal reveals animal was dehydrated and not fit for immediate surgical intervention, also there is involvement of bladder and it confirmed by ultrasonography. By using catheter the bladder was emptied up to some extent.

Immediate given fluid therapy Inj. RL 500ml, @ 10-20 ml/kg body weight, inj. DNS-500ml @10-20ml/kg body weight, along with Inj. Polybion (Multivitamins; Merck Biopharma, Darmstadt, Germany) 2 ml I/M, inj. Pan-d 40mg, i/v, followed by surgical intervention on next day. Surgical removal of the protruded mass was done under general anaesthesia. Premedication was done using Atropine sulphate (Atropin Sulphate: Paksons Pharma Pvt. Ltd. Delhi, India) @ 0.02 mg/kg body weight, I/M followed by induction with Xylazine hydrochloride (Xylaxin; Indian Immunologicals Hyderabad, Telangana) @ 0.5 mg/kg bwI/M and subsequently maintained by propofol@ 10mg/kg body weight (Neorof, Neone laboratories limited, Mumbai, India). Following use of endo-tracheal intubation, the urinary catheter (size 8 gauze number) was inserted through external urethral opening of urinary bladder. By holding the exposed part of vagina by two artery forceps the mass was separated from stalk and continuous interlocking suture was applied by absorbable Vicryl Suture No. 0 (Ethicon) and mass was carefully excised in a circumferential pattern, near urinary bladder sutures were applied 2 cm away from the urethral orifice. At the completion of surgery, vaginal stump was placed in the vagina after topical application of povidone iodine ointment and the urinary catheter was removed, animal recovered from the anaesthesia was uneventful without any complication. Animal was given Cefotaxim (Alkem Laboratories Ltd. Mumbai, India) @ 20 mg/ kg body weight I/M, Inj. Chromostat, 2ml, I/M stat., Inj. RL 500ml, @ 10-20 ml/kg body weight, inj. DNS-500ml @10-20ml/kg body weight Supridol (Neon Laboratories Ltd. Mumbai, India) @2-4mg/kg body weight I/M and Polybion (Multivitamins; Merck Biopharma, Darmstadt, Germany) 2ml i/M, once daily for five days. And advised to visit after one week for check up and animal was active, recovered successfully.

Discussion

According to McNamara *et al.*, 1997^[8], vaginal prolapsed has been reported from all domesticated species. According to Wykes, 1986^[17], cervico-vaginal prolapse is rare in bitch, prolapsed mass might be also included the bladder, uterine body and other organ distal part of the colon. In our study vagina, part of cervix and bladder was included in the mass^[17].

In the present study prolapsed bladder was visualise by ultrasonography as suggested by White and Herrtage, 1986^[15]. In the present study, the mass was swollen, congested, oedematous may be due to improper venous return, along with necrosis due to injury caused by constant movement of the animal along with friction on the ground and lochail discharges attracted the flies resulted in development of primary stage miasis.

The present study, supporting the view of Okkens, 2001^[11], as he mentioned true vaginal prolapse mainly occurs during parturition or shortly after whelping. As per Markandeya *et al.*, 2004^[7], pelvic tissues relaxation during ante-partum along with increased in intra-abdominal pressure one of the predisposing cause of prolapse.

In present case, we can conclude, excessive tenemus leads to prolapse of vagina, cervix and urinary bladder and condition might be due to excessive straining during whelping that leads to secondary uterine inertia, might be due to vaginal irritation or might be intrauterine infection an animal was unable to whelp normally. Duygu and Muhammed, 2017^[2], suggested extreme straining during parturition and relaxation of pelvic

ligaments and the cervix leads to retroflexion of urinary bladder in the prolapsed mass.

In the present case reports modified technique for surgical excision of III degree cervico-vaginal prolapse, modified technique described by Okkens (2001)^[11]. The surgical intervention was successful and ovario-hysterectomy was avoided to maintain the reproductive ability as per demand of the owner. Later following estrus animal doesn't showed any abnormality and delivered pups normally without any complication.



Fig 1: Cervico-vaginal prolapse with necrotic part, miasis



Fig 2: After completion of surgery retaining back part of the uterus

Acknowledgements

Authors are thankful to Ex-Prof. & Head. A. Krisnaswamy, Asso. Prof. G. Sudha. Assit. Prof. N.M. Murthy, PhD. Scholer, Dr. Sunita Behera, Dr. Sahadev. Veterinary College, Bangalore KVAFSU, University for carrying out the study. No funds were utilized from any grant.

References

1. Arbeiter K, Bucher A. Traumatically caused prolapse of the vaginal mucosa and retroflexion of the bladder in the bitch. *Tierarztl. Prax.* 1994; 22:78-79.
2. Duygu B, Muhammed E. Ankara Short Communication / Kısa Bilimsel Çalışma Urinary bladder retroflexion and dystocia in a bitch with the vaginal supportive connective tissue failure, *Üniv. Vet. Fak. Derg.* 2017; 64:61-64.
3. Feldman EC, Nelson RW. Vaginal defects, vaginitis and vaginal infection. In: *Canine and Feline Endocrinology and Reproduction*, 3rd edn, eds. W. B. Saunders, Philadelphia, 2004, 901-918.
4. Johnston SD, Kustritz MVR, Olson PNS. *Canine and Feline Theriogenology*. W.B. Saunders Company, London, United Kingdom, 2001.
5. König GJ, Handler J, Arbeiter K. Rare case of a vaginal prolapse during the last third of pregnancy in a Golden Retriever bitch. *Kleintierpraxis.* 2004; 49:299.
6. Manothaiudom K, Johnston SD. Clinical approach to vaginal/vestibular masses in the bitch. *Vet. Clin. North Am. Small. Anim. Pract.* 1991; 21:509-521.

7. Markandeya NM, Patil AD, Bhikane AU. Pre-partum vaginal prolapse in a dog. *Indian Vet. J.* 2004; 81:449.
8. McNamara PS, Harvey HJ, Dykes N. Chronic vaginocervical prolapse with visceral incarceration in a dog. *J Am. Hosp. Assoc.* 1997; 33:533-536.
9. Memon MA, Pavletic MM, Kumar MSA. Chronic vaginal prolapse during pregnancy in a bitch. *JAVMA.* 1993; 202:295-297.
10. Mostachio GQ, Vicente WRR, Cardilli DJ, Pires EA, Toniollo GH. Anovulvar cleft and vaginal prolapse-hyperplasia in a bitch. *J Small Anim. Pract.* 2007; 48:713-715. <https://doi.org/10.1111/j.1748-5827.2007.00365.x>
11. Okkens AC. Vaginal edema and vaginal fold prolapse in the bitch, including surgical management. 2001. Available at:<http://www.ivis.org/advances/Concannon/schaefer/IVIS.pdf?q=ivis> (accessed March 30, 2016).
12. Purswell BJ. Vaginal disorders. In: Ettinger, S.J., Feldman, E.C. (Eds.), *Textbook of Veterinary Internal Medicine*. W.B. Saunders Company, London, 2000, 1566-1571.
13. Rani RU, Kathiresan D, Sivaseelan S. Vaginal fold prolapse in a pregnant bitch and its surgical management. *Indian Vet. J.* 2004; 81:1390-1391.
14. Sananmuang T, Jeeratanyasakul P, Mankong K. Vaginal Fold Prolapse in Bitch: Case report. *Thai J Vet. Med. Suppl.* 2017; 47:215-216.
15. White RAS, Herrtage ME. Bladder retroflexion in the dog. *J Small Anim Pract.* 1986; 27:735-746.
16. Williams JH, Birrell J, Wilpe E. Lymphangiosarcoma in a 3.5-year-old Bullmastiff bitch with vaginal prolapse, primary lymph node fibrosis and other congenital defects. *J. S. Afr. Vet. Assoc.* 2005; 76:165-171.
17. Wykes PM. Diseases of the vagina and vulva in the bitch. In: Morrow, D.A. (Ed.), *Current Therapy in Theriogenology*. W.B. Saunders Company, London. 1986, 476-481.