RESECTION OF VAGINAL PROLAPSE IN BITCHES UNDER EPIDURAL ANAESTHESIA: A REVIEW OF FOUR CLINICAL CASES

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Four female pugs were presented to the Referral Veterinary Polyclinic, with history of semi hard mass hanging out from vulva for the past one week in each case. Clinical examination of the masses revealed painless, cold, semi hard and pedunculated growths hanging from the vaginal wall. All the dogs were in estrus one week before clinical presentation. According to the historical and clinical examination findings, vaginal prolapse was diagnosed. Surgical correction was decided to treat the condition with due consent of owners after discussing with them. The urethral opening was identified on the ventral surface of the prolapsed tissue and catheterized, masses were excised under epidural anaesthesia and butorphenol sedation. All the animals in the present report showed no recurrence of prolapse within one month of procedure or subsequent estrus.

**Keywords:** Vaginal prolapse, Epidural anaesthesia, Resection.

Vaginal prolapse/hyperplasia is the protrusion of the vaginal mass from the vulvular lips and occurs uncommonly but an important clinical condition, usually during prooestrous and oestrous, consequent to fluidly enlargement of vaginal tissue in bitches (Kumar et al., 2011). The edematous swelling of the vaginal mucosa immediately cranial to the urethral orifice and expanding caudally over the urethral orifice, may develop under the influence of estrogen which may become large enough to protrude outside the vulvar lips. The exposed tissue rapidly becomes edematous and inflamed and is easily traumatized (Wykes, 1986). Vaginal prolapse has been reported in almost all domestic species (Mc Namara et al., 1997). This can be due to hereditary weakness of the surrounding tissue (Wykes, 1986). The consequence of estrogenic response can result in excessive mucosal folding of vaginal floor just cranial to urethral papilla in such a way that redundant mucosa starts to protrude through the vulvar lips (Wykes, 1986). The excision of the prolapsed mass in vaginal fold prolapse through the vulvar lips in bitches, has been reported to be the best treatment (Post et al., 1991). True vaginal prolapse may occur near parturition, when the concentration of serum progesterone declines and the concentration of serum oestrogen increases (Konig et al., 2004; Rani et al., 2004). Vaginal prolapse occurs less commonly in dioestraus and normal pregnancy (Johnston et al., 2001). The present clinical review describes the clinical presentation of prolapsed vagina in four pugs and its surgical amputation.

**Case history and Observation**

Four pugs were presented between February, 2015 to April, 2015 at Referral Veterinary Polyclinic IVRI, Izatnagar with complaint of protrusion of a mass from vulva in each case. Out of four cases, three had already been attempted for reduction by local veterinarians, but with no success. On clinical examination a soft to hard edematous mass arising from vagina was found to be protruding through vulvar lips (Fig.1). Only one case was found to have subnormal temperature and all the four animals were alert. In all the cases the prolapsed mass was found to be too edematous and signs of dessication were evident. Several attempts made to reduce the mass by digital manipulation provided no success in the present cases. Following discussion with the owners, it was decided to perform an ovariohysterectomy (OHE) followed by
resection of the protruding tissue but owners were not ready for ovariohysterectomy (OHE). So, surgical resections of the prolapse were decided only.

**Surgical Treatment and Discussion**

Preoperative administration of broad spectrum antibiotics ceftriaxone @ 25mg /kg body weight, intravenous fluid (normal saline) and butorphanol @ 0.2 mg/kg body weight were given in all the cases. For epidural administration of 2% lignocaine hydrochloride, lumbosacral (L7-S1) site was shaved and aseptically prepared in all the cases. Animals were positioned in sternal recumbency with hindlimbs flexed cranially. Lumbosacral space was located and a 22G needle was used for epidural administration of 2% lignocaine hydrochloride @ 4.4mg/kg body weight in all the cases. The bitches were positioned to facilitate perineal surgery followed by purse string suturing of anal opening. The urethral catheters were maintained during the procedure, to prevent the inadvertent damage to the urethra during the surgical procedures. Four stabilizing stay mattress sutures were placed on four corners of the base of the protruded vagina with silk. The base of the edematous tissue was excised in stages (Fig.2). The bleeding was controlled by pressure, and ligatures. The adjacent mucosal edges were then apposed with simple interrupted approximating sutures (1-0 polyglycolic acid) and the remaining vagina was reduced gently (Fig.3). One case showed bleeding after the procedure which was managed by keeping the adrenaline soaked gauge tightly inside the lumen of remaining vaginal tissue. The purse string sutures of anus were removed in the end of the procedure. Recovery from anesthesia was uneventful and no complications were observed postoperatively. Ceftriaxone @ 25mg/kg b.wt. I/M and Meloxicam @0.2 mg/kg b.wt. I/M were given once daily for 5 days after surgery.

![Fig.1. Prolapsed mass before surgery](image1)

![Fig.2. During surgical procedure](image2)

![Fig.3. Site of operation immediately after resection](image3)

![Fig.4. Excised prolapsed mass](image4)
The exposed hyperplastic tissue will lead to local infection and in addition to this, it may also interfere with coitus, therefore, surgical resection has been observed as the best remedy in breeding animals as also recorded by Wykes (1986). The prolapse typically regresses and resolves at the end of the oestrous cycle even without any treatment but the recurrence rate in affected bitches is very high as also reported by Schutte (1967). In the present report, the prolapse cases did not resolve on their own and moreover, they were unsuccessfully reduced by application of purse string sutures. None of the cases in the present report showed recurrence of prolapse within one month of procedure or subsequent estrus.

References