

SURGICAL MANAGEMENT OF URETHRAL PROLAPSE IN A MALE DOG

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A four year old male Dachshund was presented with a complaint of bleeding from the penile area for the past few days. All the clinical parameters were normal and on physical examination, the tip of the penis revealed the “red pea” appearance, which is pathognomonic of urethral prolapse in male dogs. Initially the condition was treated with systemic antibiotics and styptics. Elizabethan collar was advised to prevent self-licking and trauma to the prolapsed mass. Since there was no improvement in the condition with the above treatment, surgical resection of the prolapsed mass was undertaken.

Keywords: Male Dog, Resection, Urethral prolapse.

Urethral prolapse is the protrusion of the urethral mucosa beyond the tip of the penis. It's an uncommon condition in the dog and is most often seen in young dogs (Sinibaldi and Greene, 1973). The proposed causes of urethral prolapse in dogs include excessive sexual behaviour, urogenital infections, urinary calculi, prostatic dysfunction, or developmental abnormalities (Fossum and Hedlund, 1997); however, the exact cause remains unknown (Birchard, 1998). The most common clinical sign in male dogs is the appearance of a red or purple mass that protrudes from the tip of the penis (Kirsch *et al.*, 2002). The affected dogs may also have intermittent bleeding from the penis or haematuria; bleeding may become more severe with self-trauma (Carr *et al.*, 2014). This protrusion of the urethra through the penis looks similar to a growth, such as a tumor, and typically occurs in younger dogs or dogs that are middle-aged. Its incidence has been reported more in brachycephalic breeds and Yorkshire terriers (Carr *et al.*, 2014). The precise cause is unidentified, though excessive sexual excitement, urogenital infection, urinary calculi, prostatic dysfunction or developmental anomalies have been projected as probable causes (Kirsch *et al.*, 2002). Treatment options include urethral mucosal reduction and purse string suturing, urethral mucosal resection and anastomosis or urethropexy (Shafiuzama *et al.*, 2013).

Case History and Observations

A four year old male Dachshund, weighing 10 kg, was presented to the University Veterinary Hospital, Kokkalai, Thrissur with a history of intermittent bleeding from the penile area for the past few days. The physical and haemato-biochemical parameters were within normal range. On physical examination, the tip of penis revealed a red mass protruding from the urethral orifice (Fig. 1). Tentatively, the condition was diagnosed as urethral prolapse from the “red pea” appearance, which is pathognomonic for the condition in male dogs. A differential diagnosis of the condition from traumatic lesions of penis and prepuce as well as transmissible venereal tumor was made with the help of impression smear. Microscopic examinations of the impression smear from the prolapsed area revealed the presence of epithelial cells and neutrophils. Sonographic evaluation of the bladder and urethra was performed to rule out the possibility of urinary calculi. Initially, the condition was medically treated with antibiotics (Amoxycillin – Clavulanate at dose rate of 15 mg/kg b.wt, BID) and styptics (Tab. Botrostat 250 mg, daily) orally for 5 days. The condition was confirmed as urethral prolapse and as recurrence was noticed at frequent intervals with intense bleeding, correction by the surgical resection of the prolapsed mass was decided.

Treatment and Discussion

Under pre-medication with Inj. Atropine sulphate (0.04 mg/kg b.wt, s/c) and Inj. Midazolam (0.2 mg/kg b.wt), anaesthesia was induced with Inj. Xylazine at dose rate of 1.1 mg/kg b.wt and Inj. Ketamine (5 mg/kg b.wt, i/m). The prepuce was flushed with normal saline and the penis manually extended from the prepuce and retained in position manually. The urethra was catheterized; the prolapsed mass was excised, with simultaneous apposition of the urethral and penile mucosa with 2-0 Polyglactin in an interrupted manner (Fig.2 & 3). Post-operatively, an oral course of Cephalexin

(25mg/kg b.wt), Tramadol (2mg/kg b.wt) and Ethamsylate (Tab. Botrostat, 250mg) were provided. To restrict the activity of the dog, oral administration of Haloperidol (Tab. Serenace, 10 mg) and to prevent self-mutilation, Elizabethan collar was also advised. Bleeding from the site of resection was noticed for ten days after surgical resection, after which the dog made a complete recovery. No prolapse of the urethra as well as no recurrence of clinical symptoms related to urethral pathology were noticed during a two month of follow up period.



Fig.: (1) Urethral prolapse



(2) Resection of prolapse



(3) After surgical resection

Urethral prolapse is an uncommon clinical condition in male dogs that is characterized by protrusion of urethral mucosa beyond the tip of penis. Profuse intermittent bleeding, self-mutilation and red coloured urethral tissue that prolapsed from penile tip were evident in this case confirming the urethral prolapse. The young age of the dog and excessive sexual behaviour could be the possible etiology of the condition in the dog under report. Though different treatment options like reduction and application of purse string sutures, resection and anastomosis as well as urethropexy are documented, surgical resection of the prolapsed urethra with apposition of urethral and penile mucosa was carried out in this case owing to its recurrent nature.

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