

Successful Management of Vaginal Hyperplasia in a Non-Descript Bitch

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Abstract

A 3 year old non-descript bitch was presented to our teaching veterinary clinical complex with the history of protrusion of red coloured mass through the vulva. Clinical examination revealed a pear shaped pendulous mass was hanging from the vulva. The dog was found to be systematically healthy. Based on the clinical and physical examination, the case was identified as a type-3 vaginal hyperplasia. The treatment involved a medicinal management with the Gn RH and hCG but due to recurrence of the condition, the amputation of the protruded mass along with the OHE was carried out. The bitch was recovered uneventfully without any recurrence of the condition.

Keywords: Bitch; Hormone; Management; Vaginal Hyperplasia.

INTRODUCTION

In canines, hyperplasia of the vaginal mucous membrane is an unusual reproductive disorder. It is most commonly seen in young bitches during follicular phase of the estrous cycle. The brachiocephalic breeds are more prone to vaginal hyperplasia (Post et al, 1991), with little incidence in case of non-descript breeds (Anila et al, 2020). It is characterised by the swollen and oedematous vaginal mucosa, cranial to the urethral orifice with protrusion through opening of the vulva, giving a dome-shaped or dough nut-shaped appearance of

the protruded mass (Post et al, 1991). It is believed to be due to the increased concentrations of serum estradiol (Concannon, 2011). Early veterinarian assistance is needed to avoid trauma, inflammation and self-mutilation to the protruded mucosa (Wykes, 1986). In this case report we described the successful management of stage 3 vaginal hyperplasia in a bitch.

Case history and observations

A 3 year old non-descript bitch was presented to our veterinary clinical complex (VCC), ANDUAT, Kumarganj, Ayodhya (UP) with the complaint of protrusion of red coloured mass through the opening of vulva since 9 days. The case was previously treated by a local veterinarian with manual reposition of the protruded mass but the recurrence again occurred. Clinical examination revealed a red, semi-soft large pedunculated mass protruding from the vulva (Fig. 1). The animal had normal appetite, urination and defaecation and was in proestrus just before the initiation of this condition. The diagnosis of this condition is done after the clinical and physical examination and differentiating it with vaginal or vulvar tumor, as stage 3 vaginal hyperplasia.

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Fig. 1: Vaginal hyperplasia in bitch

Treatment

Medical treatment

Firstly, we cleaned the protruding mass and applied a lubricating jelly to protect it from drying and advised to place a elizabeth collar to avoid self-mutilation. Gonadotropin releasing hormone (GnRH) 5µg twice a day intramuscularly was given for 7 days. The result of this treatment was not found to be satisfactory so we given human chorionic gonadotropin (hCG) 250 IU once a day for 4 days. After treating with hCG, the mass was reduced gradually upto 70 percent within 9 days of treatment but again the recurrence of the condition was there so after consulting with the owner we decided for the surgical management through ovariohysterectomy as the bitch is not being used for future breeding purposes.

Surgical management

The surgery was performed under general anaesthesia. The atropine sulphate @0.04 mg/kg body weight was given as preanaesthetic. The anaesthesia was induced and maintained with xy lazine @ 1mg/kg body weight intravenously and ketamine @5mg/kg body weight in travenously. The animal was placed in lateral recumbency, and the protruded mass was cleaned with normal saline. To avoid damage during sutures or surgery, the external urethral orifice was identified and catheterized. The lobulated, edematous mass was ligated with absorbable sutures (Petcryl, no1, Futura Surgicare Pvt. Ltd.), taking care not to encircle the urethra. The prolapsed mass was amputated after it had been properly ligated. The urinary catheter was removed after the completion of surgery. The OHE was also performed to avoid the recurrence of the vaginal hyperplasia. Post-operatively the animal was given inj.cefoperazone @20mh/kg b.wt. BID for 7 day, inj. Meloxicam @0.2mg/kg b.wt. IM OID

for 5 days, inj. Vitamin B complex @2 ml IV BID for 7 days and tab. Tissue aid @1 tab BID orally for 5 days. The surgical wound was antiseptically dressed with Betadine solution until complete healing occurred, and the animal was successfully recovered without recurrence of the condition.

DISCUSSION

Vaginal hyperplasia is a benign, proliferative disorder of the vaginal mucosa characterised by excessive growth of the vaginal epithelium mainly due to the exaggerated response of the vaginal mucosa to estrogen during the proestual-estral phase of the cycle leading to protrusion through the vulvar lips (Bucci, 2022). Other factors such as age, breed and genetic predisposition may also play a role in the pathogenesis of this condition (Johnston, 1990). Based on the degree of tissue involved, the vaginal hyperplasia is divided into 3 stages (Manothaiudom, 1991). In this case, both the medicinal and surgical approaches were carried out. The GnRH and hCG exerts there effect by releasing LH and cause a subsequent rise in serum concentration of progesterone but due to recurrence of the vaginal hyperplasia, amputation of the prolapsed mass along with the OHE is found to be the best method to treat the case of vaginal hyperplasia in bitch.

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