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Management of paraphimosis in dogs: A report of 4 cases

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Abstract

The present study was management of acquired acute penile paraphimosis in dogs presented to the Department of Veterinary Surgery and Radiology, CVSc. & AH, OUAT, Bhubaneswar. This condition was noticed following sexual excitement. Physical examination revealed oedematous, hyperaemic and non-retractile protruding penis on gentle palpation. Under general anesthesia repositioning of the protruded penis was successful in three cases through conservative approach. But in one cases surgical intervention was needed. All the dogs were recovered uneventfully with no reoccurrence.

Keywords: Management, paraphimosis, trauma, painless

Introduction

Paraphimosis is the inability to retract the penis into the sheath or prepuce. Paraphimosis may be associated with copulation, masturbation, trauma, penile hematoma, neoplasia, foreign bodies, pseudohermaphroditism, neurologic deficits, or constriction by preputial hairs (Fossum, 2013) [1]. Paraphimosis due to excessive sexual activity is usually seen in young male dogs (Kazemi, 2011) [2]. Initially, the exposed penile tissue appears normal and is painless. Persistent exposure of the glans penis leads to congestion, discoloration and inflammation of tissue and impaired circulation. Trauma of the exposed tissues and persistent licking by the animal further exacerbate the problem, increasing the severity of edema and circulatory problem. Prolonged paraphimosis can result in necrosis of the glans penis and obstruction of urethra (Adeola and Enobong, 2016) [3]. The present article describes case of paraphimosis in four male dogs with a history of sexual activity and copulation with apparently no detectable penile abnormalities.

Case history and clinical examination

Four male dogs, a German Shepherd (16 months), a Mongrel (3 years), a Spitz (2years) and a Dalmatian (2.5 years) were presented to the Department of Veterinary Surgery and Radiology, CVSc. & AH, OUAT, Bhubaneswar in different times with the complaint of protrusion and persistent licking of the penis, and restlessness following sexual activity. Physical examination of the dogs revealed swollen, oedematous, congested penis protruding from the prepuce with pain on palpation and were diagnosed as paraphimosis.

Surgical treatment

The dogs were anaesthetised with a mixture of xylazine hydrochloride @ 1mg/kg body weight and ketamine hydrochloride @ 5mg/kg body weight intramuscularly in adjunct with premedication atropine sulphate @ 0.04mg/kg body weight. Local application of 2% lignocaine hydrochloride gel and icepack over the penis was done to reduce Edema. The prepuce was pulled back until it was unfolded to expose preputial mucocutaneous junction allowing restoration of penile circulation and resolution of Edema. The penis was examined carefully for constricting foreign bodies and the protruded, edematous penis was cleaned with normal saline solution. After the swelling has been decreased, the prepuce was flushed with a mild Povidone iodine solution, and the penis was manually reduced into the preputial cavity followed by application of purse string suture at the preputial orifice.

In one dog where conservative treatment by manual reduction was not possible due to constricted preputial orifice, preputiotomy under general anaesthesia was done. Incision was given at ventral aspect of the preputial orifice to facilitate reduction of the protruded penis into the preputial sheath. Incision was closed routinely followed by a purse string suture at preputial orifice. Orchiectomy was performed to prevent future recurrence due to sexual activity. Post-operative treatment included Ceftriaxone @ 20mg/kg body weight IM and Meloxicam @ 0.3 mg/kg body weight IM, respectively. An Elizabethan collar was used after the surgery for 7 days to prevent self-mutilation. Purse string sutures were removed after 5 days and skin sutures were removed 10 days postoperatively. The dogs were recovered uneventfully.

Result and Discussion

The decision to treat paraphimosis conservatively or surgically depends to a large extent on the clinical signs and duration of the condition. Since the above cases were presented at the early stages when necrosis and permanent penile damage had not occurred and penile circulation was restored to normal by replacing the penis in the preputial cavity and returning the prepuce to its normal configuration resulted in favourable recovery. Healing of a cutaneous wound requires a well-orchestrated integration of complex biological and molecular events (Das *et al.*, 2015) ^[4]. In the present case there was risk of self-mutilation of the preputial wound due to urine contamination. But no such incidence was observed. The use of hyperosmolar magnesium sulphate solution in combination with ice packs facilitated return of the penis into the prepuce as observed by Elkins (1984) ^[5]. In the present cases use of ice pack with local application of 2% lignocaine hydrochloride gel were found successful. The immediate attempts to correct this condition and the surgical technique are indicated, further delay may result to prolonged entrapment and strangulation which causes venous and lymphatic compromise that leads to penile necrosis and severe stress to the animals (Fossum, 2013; Sahu *et al.*, 2019; Satapathy *et al.*, 2022) ^[1, 6, 7].

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