Global Veterinaria 16 (1): 49-51, 2016
ISSN 1992-6197

DOI: 10.5829/idosi.gv.2016.16.01.101160

Surgical Management of Paraphimosis in Dog: A Case Report

[1]Babalola Samuel Adeola and [2]Henshaw Enobong

[1]Department of Veterinary Surgery and Theriogenology,
Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria
[2]Divine Veterinary Clinic, Ikot Ekpene, Akwa Ibom State, Nigeria

Astract: This clinical case report described the management of an acquired acute penile paraphimosis in a 4 month old Germanshepherd breed of dog presented to Divine Veterinary Clinic, Ikot Ekpene in Akwa Ibom State of Nigeria. This condition was noticed following sexual excitement and an attempt to mount an adult bitch on heat housed together with it. Physical examination revealed oedematous, hyperaemic and non-retractile protruding penis with "napkin ring" on gentle palpation. Following sedation of the dog, the penis was massaged gently using hypertonic sugar solution aiming at reducing the oedema. Despite the reduction in size of the penis and the application of topical penicillin with gentle manipulation of the protruded penis, retracting the penis back into the prepuce was unsuccessful as a result of narrow prepucial orifice compounded by the "napkin-ring". The condition was then surgically treated by a tension-release incision on ventral border of the prepucial sheath. The dog recovery was uneventful with no reoccurrence observed in 8 weeks follow up period.

Key words: Paraphimosis · Sexual Excitement · "Napkin Ring" · Dog · Tension Releasing Incision

NTRODUCTION

Paraphimosis; A constriction preventing the penis from being withdrawn into the prepuce, it can be congenital or acquired and is not uncommon in the dog and is serious, for gangrene may occur unless relief is afforded [1].

The prepuce is a tubular sheath of skin (Parietal layer) lined with mucosa (Inner visceral layer) that covers a portion of the penile shaft (Pars longa glandis, bulbus glandis). The mucosa reflects off the bulbus glandis, forming a fornix as the mucosa reflects onto the external penile surface to the urethra orifice [2]. The skin is firmly attached to and continuous with the ventral abdominal skin, creating a sling effect to support and protect the penis from trauma while providing reasonable mobility. The cranial 1 to 3 cm of the prepuce protrudes forward from the skin reflecting off the abdominal wall. The preputial orifice normally permits unimpeded extrusion and retraction of the penile shaft [2]. The band-like preputial muscle, an extension of the ventral limits of the cutaneous muscle, attaches to the cranial and dorsal aspect of the prepuce [1, 2]. The primary function of this muscle is to draw the prepuce forward to cover the glans penis after erection. The primary sources of circulation to the parietal and visceral layers are the external pudendal artery and dorsal artery of the penis [1,2]. The visceral layer is also supplied by the artery of the bulb of the penis, albeit to a lesser degree. A small preputial orifice relative to the size of the penis can result in phimosis (Inability to extrude the penis from the preputial orifice) or paraphimosis (Inability of the penis to retract completely into the prepuce) [1, 2]. The most serious condition is paraphimosis with entrapment and strangulation of the penile shaft. Paraphimosis can present as persistent or episodic exposure of the penis; the most serious scenario is acute penile entrapment and circulatory compromise [2]. There are several causes of paraphimosis; management depends on the cause(S) and viability of the penis at the time of presentation [1, 2].

Case History and Clinical Examination: A 4 months old Alsatian puppy weighing 6kg was presented to Divine Veterinary clinic, with complaint of protrusion and persistent licking of the penis and restlessness which was noticed immediately after the puppy mounted an adult Alsatian bitch on heat in the same house.

Corresponding Author: Babalola Babalola Samuel Adeola, Department of Veterinary Surgery and Theriogenology, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

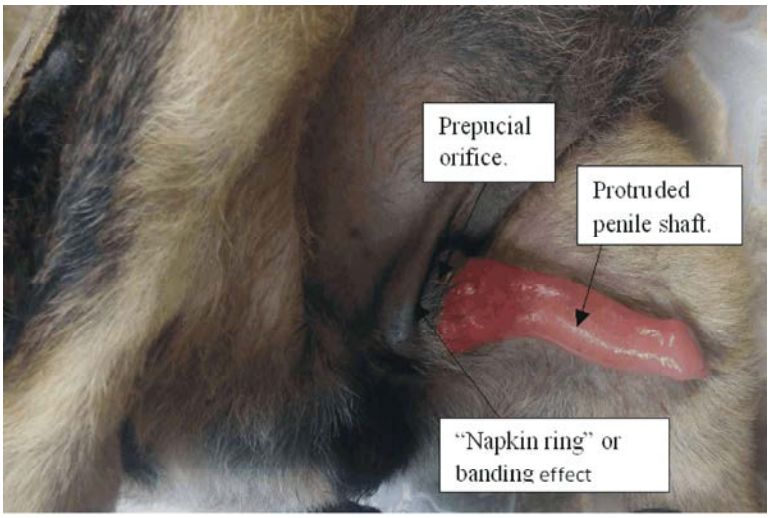

Plate I: Showing paraphimosis.

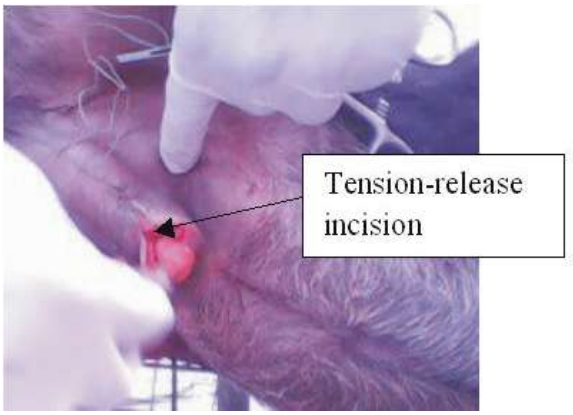

Plate II: Tension-release incision of preputial orifice along its ventral border.

On clinical examination there was swelling and oedema of the protruded (Exposed) penis with a "Napkin ring" or banding effect created by the preputial orifice as a result of a small, restrictive preputial orifice relative to penile engorgement (Plate I), the penis was also examined for venous and lymphatic compromise which may result to penile necrosis. The dog was assessed for pain by gentle palpation of the exposed penis.

Surgical Management: The puppy was heavily sedated with xylazine (XYL-M2®, V.M.D.s.a/n.v. Hoge Mauw 900 B-2370 Arendonk Belgium) at a dose rate of 0.15mg/kg and Tremadol Hydrochloride (VISKODOL®, VISKO PHARMACY LTD, 9/26 Udi Road, Asata, Enugu, Nigeria) analgesic. Gauze soaked with hypertonic solution of dextrose was wrapped around the penis and gently massaged to help reduce penile oedema, this process does not produced any significant reduction of the penile oedema thus a tension-release incision technique was employed to immediately relieve circumferential tension on the penile shaft by enlarging the preputial orifice along its ventral border (Plate II). The lubricated surface of a grove director was inserted between the prepuce and penis before incising the border sufficiently to relieve the circumferential tension and to avoid injury to the penile shaft. Topical ointment, Penicillin Ointment® (MIM PHARMA. IND. LIMITED. Klm 21, Owode Idiroko Road, Ajibawo Ogun State) was applied on the exposed penis to prevent desiccation of the exposed penile mucosa and the prepuce was then advanced forward over the penis thus replacing the penis into the preputial cavity. The hair around the incision and the Prepucial orifice was shaved. Two interrupted suture, using size 2 zero nylon was applied to close the incision. The puppy recovered uneventfully.

Post Surgical Management: An Elizabethan collar was applied arond the neck to prevent the dog from getting to the incision site. Topical antibiotic ointment (Penicilline ointment®) was used as wound dressing and the prepuce flushed with diluted chloxecidine while moving the prepuce gently over the penis to ensure no friction between the penis and prepuce, this was done daily for 7 days post surgery and the dog recovered uneventfully with no reoccurrence observed in 8 weeks follow up period.

DISCUSSION

The occurance of paraphimosis in this patient agrees with Michael [1] and Boothe [2] that paraphimosis is most commonly seen in dogs younger than 1 year of age and diagnosis is primarily determined by physical examination of the prepuce and penis at the time of presentation.

The entrapment is associated with restriction around the penis from a small preputial orifice relative to the diameter of the penile shaft, which results in dramatic swelling of the exposed penis this also agrees with the reports of Michael [1] and Boothe [2].

The immediate attempts to correct this condition and the surgical technique are indicated by Michael [1], Boothe [2] and Fossum [3] further delay may results to prolonged entrapment and strangulation which causes venous and lymphatic compromise that leads to penile necrosis.

The choice of medications was as indicated by Hassan and Hassan [4] and Fossum and Willard [5].

REFERENCES

1. Michael, M.P., 2005. Management of Canine Paraphimosis. Director of Surgical Services Angell Animal Medical Centre Boston, Massachusetts.
2. Boothe, H.W., 2003. Penis, prepuce and scrotum, in D. Slatter (ed): Textbook of Small Animal Surgery. Philadelphia, WB Saunders, pp: 1532-1541.
3. Fossum, T.W., 2002. Small Animal Surgery, 2nd ed. Philadelphia, Mosby. pp: 666-674.
4. Hassan, A.Z. and F.B. Hassan, 2003. An introduction to veterinary practice. Ahmadu Bello University press ltd Zaria, Nigeria, pp: 47-48, 75, 77, 222-230 and 238.
5. Fossum, T.W. and M.D. Willard, 2007. Surgical infections and antibiotic selection. In: T.W. Fossum, ed. Small Animal Surgery, 3rd ed. St. Louis, Missouri: Mosby, pp: 79-89.