



## Paraphimosis in A 7 Month Old Wether: A Case Report

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### ABSTRACT

This study reports a case of paraphimosis in a wether. The animal was brought to the hospital with the complaint of retained protruded penis. The penis was carefully assessed and gross debris removed by washing with diluted chlorhexidine solution. Hypertonic sugar solution and a cold compress were applied to reduce the edema and petroleum jelly was used to lubricate the penis. The penis was replaced into the prepuce and it remained. Broad spectrum antibiotics (Penicillin and streptomycin) and Piroxicam were administered intramuscularly and the animal was monitored closely for five days and there was no reoccurrence.

### KEYWORDS

Antibiotics, hypertonic sugar solution, paraphimosis, petroleum jelly and Piroxicam

### INTRODUCTION

Paraphimosis is the inability to completely retract the penis into the preputial cavity. It usually occurs after erection (Davidson, 2010). It is seen most often after semen collection or coitus. The skin at the preputial orifice becomes inverted, trapping the extruded penis and impairing venous drainage (Davidson, 2010). The cause of paraphimosis is most often iatrogenic; Possible causes of paraphimosis include a small preputial opening, priapism, foreign objects around the penis, a constricting band of hair at the preputial orifice, or trauma (Davidson, 2010). Paraphimosis is easily differentiated from priapism (persistent erection without sexual stimulation), congenitally shortened prepuce, congenital deformity of the os penis, or penile neoplasia or hematoma (Samm et al, 1996). Although trauma is usually the first differential considered in the etiology of the condition, other causes should also be considered, particularly when a traumatic incident is absent from the history. Priapism and penile paralysis are frequently complicated by secondary paraphimosis (Brinsko, 2008). Castration normally entails the removal of the testes. This results in a hormonal change and subsequently the desire for sex disappears. However, animals and humans castrated after maturity are able to still experience erection but unable to produce sperm. (Jong and Choe, 2000). However, when the penis cannot be retracted, it is easily traumatized and circulation is impaired. Impaired circulation causes the penis to become edematous, which further compromises circulation. Vascular engorgement may progress to thrombosis of the corpus spongiosum and necrosis. A moderately compromised, chronically protruded penis will become dry, fissured, and cornified. (Fossum, 2013)

### CASE REPORT

A 7-month old brown West African Dwarf wether weighing 8kg was presented to the Large Animal clinic of the Veterinary Teaching Hospital, University of Agriculture Makurdi (VTH-UAM) on the 6<sup>th</sup> of July, 2015 for evaluation and management of a retained protruded penis



(Fig.1) The wether showing penile protrusion



(Fig.2.) The wether when presented showing penile protrusion.

which the owner observed two days prior to presentation. Further history revealed that the wether was castrated 3(three) months earlier by open castration technique and had also been vaccinated against Peste des Petits ruminants (PPR) about 4 months ago. A thorough physical examination was carried out and the vital parameters were: Temperature 41.0°C, Heart rate 122 (b/m), Pulse rate 106(b/m) and Respiratory rate 36(c/m). Upon further examination, the ocular mucous membrane was pink, Capillary refill time (CRT) <2secs. The Body Condition Score was 3/5 and the scrotal sac was empty on palpation. Moreso, there was retained penile protrusion; bruises were seen on the glans penis. Pain was experienced by the animal on palpating the penis. The site (prepuce and penis) was cleaned with 0.05% Chlorhexidine. Hypertonic sugar solution was carefully wrapped round the penis using absorbent gauze to reduce the edema. The penis was then cleaned thoroughly with dry gauze after the application of hypertonic solution and the penis was then lubricated with petroleum jelly. The penis was later bandaged using gauze. The site was cleaned thoroughly with dry gauze when the animal was represented and a cold compress was placed on the site; from the glans to the base of the penis for a short while (Davidson, 2013)

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The penis was again lubricated with petroleum jelly. The penis was then replaced inside the prepuce by first sliding the prepuce in a posterior direction, extruding the penis further. This everts the skin at the preputial orifice; usually the prepuce then slides easily over the penis. The edema was resolved promptly as soon as the circulation was restored and the penis remained in position. (Fig.3) .Inj.Penstrep (penicillin G at 20,000 IU/Kg Streptomycin at 10mg/kg) b.wt IM x 5/7. Inj. Piroxicam was administered at a dosage of 0.5mg/kg b.wt IM x 3/7. The vital parameters which were above normal values when the animal was first presented were monitored on daily basis and normal values were attained on the second day of treatment.



(Fig 3) Showing when the penis was replaced into the prepuce.

#### Discussion

Paraphimosis is presented as an emergency urologic condition in which the penis is unable to completely retract the penis into the preputial cavity (Jong and Choe, 2000). The possible causes could be: 1 Congenital-genetically involved and occurs at birth 2. Acquired – which include: Preputial edema secondary to trauma damage to the innervations of the penis leading to paralysis of the penile retractor muscle, mild phimosis, Foreign objects around the penis, a constricting band of hair at the preputial orifice, hematoma- causes failure of penile retraction. Inability to maintain the penis within the preputial cavity, regardless of the cause, impairs venous and lymphatic drainage of the penis and prepuce, which leads to edema of the internal preputial lamina. As the internal preputial lamina swells, the preputial ring may become constricting, causing the penis distal to the ring to swell further, thus paraphimosis results. (Frank, 2002) Early aggressive therapy is important, because it can minimize or avoid secondary complications. The primary goal in treating paraphimosis is to reduce the swelling and replace the prolapsed penis back into the preputial cavity as soon as possible to protect it from further injury. (Samm et al, 1996) There are two types of paraphimosis namely; 1. Paraphimosis with entrapment/strangulation-which results from entanglement of preputial hair located at the margin of the preputial orifice and occurs as a result of small, restrictive preputial orifice relative to penile engorgement 2. Paraphimosis without entrapment /strangulation- This occurs with history persistent penile protrusion and the exposed penis can be pushed back into the prepuce using a lubricant. (Micheal, 2005)

The diagnosis of the condition was based on history of retained or sustained penile protrusion. Physical examination of the penis and prepuce as well as the preputial orifice. Early intervention is the key in the management of paraphimosis. A vital step is the reduction of the edema. (Simmons et al, 1985) For paraphimosis with entrapment, it is managed by emergency tension relieving incision (surgical intervention). For paraphimosis without entrapment, it is corrected by use of lubricant applied to the exposed penis which can be gently manipulated back into the preputial orifice (Micheal, 2005). If the everted prepuce does not slide over the edematous, exposed penis, a cold compress may be applied with gentle digital pressure to act as a pressure bandage. (Davidson, 2003). Furthermore, preputiomy may be necessary to allow retraction of the penis into the prepuce if conservative measures fail. Partial amputation of the penis is indicated for severe trauma or abnormalities of the penis or prepuce, neoplasia, recurring urethral prolapse, and recurring paraphimosis. Partial penile amputation is applicable when the site of transaction is cranial to the caudal end of the os penis. Castration is recommended to prevent recurrence of paraphimosis because of sexual activity. Phallopexy is indicated for cases of recurrent paraphimosis or as the initial surgical treatment a temporary purse string suture can also be placed to keep the penis inside the prepuce as one of the options (Fossum, 2002). An injectable broad spectrum antibiotics once administered for five days after replacement of the protruded penis will take care of secondary bacterial infection, (Borobia-Belsu 2006); Piroxicam is normally administered to reduce inflammation.

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