

## Surgical Management of Congenital Prepuce Stenosis in a Kid

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### Abstract

A kid was presented with history of dribbling of urine and swelling on ventral aspect of prepuce. Examination of urogenital system revealed palpable swelling noticed on the cranio-ventral aspect of preputial region with absence of normal preputial orifice and pinpoint narrow opening. Under Dexmedetomidine sedation, a triangular piece of skin was excised from the cranial aspect of prepuce and skin was sutured with underlying mucosa. Finally, the animal recovered uneventfully.

**Keywords:** Congenital; kid; prepuce; stenosis

### Introduction

Prepuce is a fold of skin covering glans of the penis. Defective genetics or environmental factors or combination of both results in congenital malformations (Shukla *et al.*, 2007). The occurrence of congenital urinary tract anomalies in farm animals were rare. The most common anomaly include patent urachus, hypospadias and renal agenesis (Temizosyly, 2005). In a survey, occurrence of congenital hypospadias was about 0.066 percent and found to be the major congenital anomalies in goats (Al-Ani *et al.*, 1998). Congenital stenosis of prepuce cases reports were reported in dogs and cats (Dominguez *et al.*, 1996) but reports available on farm animals were very less.

The present case report describes successful surgical management of congenital stenosis of prepuce in a non-descript kid.

### History and Clinical Observations

A forty days old male kid was presented with history of dribbling of urine, swelling on ventral aspect of prepuce and not taking feed and water properly. On clinical examination, physiological parameters were within normal limits except for mild elevation in heart rate. Abdominal palpation revealed slightly distended urinary bladder. On detailed examination of urogenital system, palpable swelling was noticed

on cranio-ventral aspect of preputial region with absence of normal preputial orifice. A pinpoint narrow opening was present on cranial aspect of the swelling through which dribbling of urine was observed on manual expression (Fig. 1). The presence of scrotum and testes were found normal. Haematobiochemical examination showed all the parameters were within the normal range.

### Treatment and Discussion

Surgical site was prepared under general anesthesia with premedication using Dexmedetomidine at the dose rate of 1 µg/kg intravenously, induction was achieved with Propofol and Diazepam at the dose rate of 3 mg/kg and 0.2 mg/kg i.v. respectively. Animal was positioned in lateral recumbency and preputial area was prepared aseptically. A triangular piece of skin was excised from cranial aspect of prepuce. After removing the triangular piece of skin free flow of urine was noticed. The swelling in the preputial region was also reduced. The skin was sutured with underlying mucosa by using simple interrupted suture pattern to avoid further closure of wound margins and to maintain patency of preputial opening (Fig. 2). Animal was treated with Ceftriaxone (Intacef<sup>®</sup>) 150 mg intravenously for seven days and Flunixin meglumine (Unizif<sup>®</sup>) 0.5 ml intravenously for five days. Sutures were removed on tenth post-operative day and the animal started passing urine normally. No signs of stenosis of preputial opening were observed and the animal made an uneventful recovery.

Congenital preputial stenosis leading to phimosis, or entrapment of the penis inside prepuce has been reported in dogs (Dominguez *et al.*, 1996). In present study, a rare occurrence in a non-descript 40 days

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Fig. 1: Narrow preputial opening in cranio-ventral aspect of prepuce



Fig. 2: Preputial opening after surgery

old kid was reported. The anesthetic protocol employed in this case provided adequate sedation, anesthesia, muscle relaxation and analgesia. Dexmedetomidine used in this study did not produce significant changes in cardiovascular system and vital signs were maintained within normal limits. Sarierler and Kara (1998) performed correction of preputial stenosis in dog by removing triangular piece of skin and similar method was followed in this case also. Apposition of skin with underlying mucosa is necessary to avoid adhesion of wound edges and to avoid reoccurrence.

### Summary

Dexmedetomidine did not produce significant cardiovascular changes in the present case. The availability of literatures on congenital preputial affections in farm animals was very less. This paper reports a rare case of congenital stenosis of prepuce

in a non-descript kid and its successful surgical management under general anesthesia.

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