

Case Report

**PERVIOUS URACHUS IN CALVES AND ITS SURGICAL
MANAGEMENT**

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Introduction

The most common congenital condition of the urinary bladder is the pervious urachus. It is also known as the pervious urachus. This condition is more commonly observed in the foals (Mc Gavin *et al.*, 2001), cow calves (Dilipkumar and Dhage, 2010) and rare in the buffalo calves (Mouli, 1988 and Sharma and Shing, 2004). In such calves, urine dribbles from the umbilicus and area around it remains wet. The aetiology for condition to develop are when the foetal remnant of urachus, umbilical arteries and veins failure to involute, neonatal omphalitis, umbilical abscess and congenital urethral obstruction (Mc Gavin *et al.*, 2001).

This paper includes the surgical management of the pervious urachus in two cow calves presented to the veterinary dispensary, Galataga (Chikkodi), Belagavi district, Karnataka.

Case history and clinical examination

The two cow calves were presented to the veterinary dispensary, Galataga (Chikkodi) with the history of dribbling of urine from the umbilicus and one calve had the tube like swelling hanging from the umbilicus without dribbling of urine. On clinical examination the one calf which was not having the infection showed the normal heart rate, respiration rate and rectal temperature. However the one calf which had umbilical infection showed the slight increase in the heart rate, respiration rate and the temperature. The local area around the umbilicus was inflamed, edematous and the pain was evinced by the calf on palpation. One case which could pass the urine from the natural orifice however in one case which had the urethral obstruction could pass urine only from umbilicus. Further examination revealed the distension of abdomen, and it was diagnosed as uroperitonium after performing the

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abdominal ballottement and abdominal paracentesis. Both the cases were diagnosed as the pervious urachus. So for the repair of pervious urachus surgical treatment was selected.

Surgical procedure

Surgical site was prepared aseptically and inj. Streptopencillin @ 10 mg per kg B. Wt. I/M, inj. Meloxiacm @ of 0.3mg per kg B. Wt. I/M were given preoperatively to both the cases. The operation was performed under local infiltration with inj. 2% Xyalocaine and controlled in dorsal recumbency. One calf was underwent mid ventral laparotomy operation by giving incision over the umbilicus cranial and caudal to it. The cord was dissected carefully; doubly ligated using chromic catgut proximal to infection site and severd. In another calf which had the uroperitonium the incision was given over the caudal mid ventral region. The complete urine was suctioned out from the abdomen by lavaging two to three times with normal saline. Then after the cord is dissected and severed from the vertex of the bladder. The severed bladder stump was closed with absorbable suture of size 2-0 using purse string technique. The infected cord was severed and taken out from the body in all the cases. In standard manner the laparotomy wound was closed with absorbable suture material for linea alba and the skin with nylon using interrupted mattress. The calf which had the urethral obstruction was cleared by passing the teat siphon of diameter 2 mm through the urinary miatus. All the cases were given postoperative antibiotic and analgesia for five days and wound dressing was carried out for ten days.

Result and Discussion

One calf which had only umbilical dribbling was surgically managed by dissection of the infected cord and severing it from the bladder after ligation. There were no complications and calves recovered without any uneventful incidences. Similar results were reported by the (Fazili *et al.*, 1998 and Dilipkumar and Dhage, 2010). The calf which had the uroperitonium, cystitis and cord infection along with the urinary obstruction was successfully surgically treated. The biochemical estimation of the serum sample for bun and creatinine before operation was 55mg/dl and 2mg/dl respectively, indicates the uremic status of calf. After the third day post operation the titre were reduced to 35mg/dl and 1.5mg/dl. Then the condition was reversed by giving the intravenous fluids with inj. dextrose normal saline, inj. ringer's lactate during surgery and post surgery along with peritoniuma lavage with normal saline during surgery as reported by Fazili *et al.*, 1998. After post operation the animal had urinary incontinence. For that the inj. calcium gluconate 5 ml I/V, inj. Tonophosphon 2ml i/v and nervine tonic inj. Beeplex forte having B1, B2 and B6 of 2ml I/V for four times, once in

alternate day was given. The antibiotic for this calf was changed to inj. Amikacin 250mg i/v was given to control infection daily for eight days. The calf recovered without complications.

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