

# URINE BYPASS BY TUBE CYSTOSTOMY IN A BUFFALO MALE CALF: A SIMPLE TECHNIQUE FOR SURGICAL MANAGEMENT OF URETHRAL CALCULI

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Obstructive urolithiasis is a commonly encountered field problem among males of small ruminants and calves. Urethral process amputation and medical therapy which are the first line approaches resorted to, by a field veterinarian, either did not relieve the obstruction or provide only temporary relief (<36 hours) of this condition (Haven et al., 1993). Urethrotomy/urethrostomy or cystostomy or all combined should then be done as next line approach. Since these techniques are invasive, time consuming and requires skill, management of obstructive urolithiasis which are unresponsive to urethral process amputation and medical therapy is a great problem for majority of the veterinarians. This paper reports a minimally invasive, economic and simple technique of urine bypass – tube cystostomy – in a buffalo calf, for management of urethral calculi. The surgery can be performed at the farmer's door, with minimal facilities.

A five-month old buffalo male calf was presented with urinary obstruction. Linear bulging of penile urethra could be palpated. Under Xylazine sedation and local infiltration analgesia of the paraprepuccial region, urinary bladder was approached through a small incision in the caudal ventral abdomen parallel to the penis and blunt separation of the abdominal muscles. Urinary bladder was punctured by a small nick using scalpel and a no. 14 Folley's catheter was introduced into the bladder lumen. After inflating the bulb of the catheter, it was anchored with the bladder wall by purse string suture using braided silk. The tails of the purse string was then passed through the edges of the abdominal muscle and tied, to anchor the bladder with the floor of the abdomen. The incision was then sutured around the catheter and the catheter was anchored onto the ventral abdomen skin.

The animal was put on post-operative antibiotic therapy with Ciprofloxacin 250 mg b.i.d. orally for two weeks and a course of litholytic drug – Cystone (Himalaya Drug Co., Bombay). It was then discharged

with the indwelling catheter. By the end of two weeks, the animal started passing small quantity of urine through the penis. At this time, the owner was advised to intermittently occlude the catheter by tying it with a thread and maintain the occlusion till the animal showed discomfort in passing urine. This was continued for several days, till there was no discomfort and there was normal passage of urine through the penis, when the catheter was kept occluded for consecutive days at a stretch. The catheter was then pulled off after deflating the bulb and wound was dressed with antiseptic cream. There was an uneventful recovery. Fazili (2002) had reported catheterization of urinary bladder on the dorsal wall after laparotomy through the paralumbar fossa, for management of obstructive urolithiasis in male calves, and opined that catheterization was easy and urine flow continued uninterrupted in all animals. He also reported that this method of treatment have better results than surgically opening the urethra and attempting to remove the calculi. My opinion is that tube cystostomy by ventral approach through paraprepuccial incision will be much easier than described, and will be minimally invasive, providing a good prognosis for long-term resolution of obstructive urolithiasis in male calves and goats. This method is simple, economic and can be performed with minimal facilities by all veterinarians. □

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