Indian J. Vet. Surg. 47(1): 84-85, April 2026

SHORT COMMUNICATION

ijvs

Surgical management of penile anomalies in mongrel dogs

Dishant Saini[1*], Badal Patle[1], G.S. Khandekar[2], S.V. Gaikwad[3] and S.M. Tripathi[3]

Maharashtra Animal and Fisheries Sciences University, Nagpur- 440 006 (Maharashtra)

[1]PhD Scholar, [2]Professor, [3]Assistant Professor, Department of Veterinary Surgery and Radiology, Mumbai Veterinary College, Parel, Mumbai.

DOI No.: 10.5958/0973-9726.2026.00017.7 *Accepted: Nov. 2025*

Penectomy combined with pre-scrotal urethrostomy was performed to establish a permanent urethral opening cranial to the scrotum following penile removal for the management of urethral affections and penile anomalies in castrated dogs. Four mongrel dogs were presented with a history of penile trauma of various etiologies. Based on clinical and physical examination findings, penectomy with pre-scrotal urethrostomy was performed in all cases. The procedure resulted in a tension-free anastomosis of the urethra to the skin at the pre-scrotal region, with no major postoperative complications observed. The study primarily focused on early complications, including mild intermittent haemorrhage from the stoma during urination, and late postoperative complications, particularly urethral stricture formation. The findings suggest that pre-scrotal urethrostomy combined with penile amputation is an effective surgical technique for the management of penile anomalies and may help reduce the risk of urethral stoma stricture formation in dogs.

Keywords: Dog, Penectomy, Penile anomalies, Urethrostomy

Penile amputation has been recommended for the treatment of various penile disorders, including paraphimosis, priapism, and severe urethral damage secondary to conditions such as os-penis associated injury or congenital anomalies like hypospadias (Boothe, 2003). The level of amputation (partial or complete) and the site of subsequent urethrostomy depend on the nature and location of the penile or preputial lesion. Accordingly, the urethrostomy site may be pre-scrotal, scrotal, or perineal, based on the level of penile transection. Despite being well described in the literature, penile amputation is relatively infrequently performed in clinical practice. This study describes the indications, postoperative complications, and long-term outcomes of pre-scrotal urethrostomy combined with penile amputation in four dogs.

Four castrated male dogs were presented with a history of penile bleeding and intermittent urine dribbling. On physical examination, three cases had severe penile trauma secondary to fighting with other dominant dogs, with associated inflammation of the bulbous glandis, while one case was diagnosed with hypospadias, characterized by abnormal urine dribbling due to ventral displacement of the urethral orifice and compression of the cranial urethral wall by the os-penis. In all cases, bleeding was observed during urination and episodes of excitement, which had previously resulted in mild acute anaemia.

Urethral patency was assessed using urinary catheters (No. 5-8), selected according to urethral diameter, and free urine flow was confirmed in all dogs. Initial medical management included sedation with triflupromazine maleate administered subcutaneously, along with oral amoxicillin-clavulanic acid and meloxicam. Clinical examination revealed pale mucous membranes, while rectal examination showed a smooth, non-painful, mildly enlarged prostate. Based on clinical and physical findings, surgical intervention involving penectomy with pre-scrotal urethrostomy was planned.

All dogs were premedicated with triflupromazine maleate (1 mg/kg body weight). Anaesthesia was induced with propofol (4 mg/kg, i.v.) and maintained with inhalation agent isoflurane (2.5%). Dogs were positioned in dorsal recumbency, and the urethra was catheterised, mobilised, elevated to the skin surface, and spatulated ventrally (Fig. 1). The urethral mucosa was sutured to the skin using a three-point technique, wherein the needle was passed sequentially through urethral mucosa, tunica albuginea, and partial-thickness skin, using simple interrupted sutures of 2-metric polypropylene (Prolene, Ethicon) (Fig. 2). A permanent urethral stoma was created cranial to the scrotum to facilitate urine outflow (Fig. 3).

Total penile amputation was performed following an elliptical incision around the prepuce (Fig. 4). The penis was reflected caudally, and the ischiocavernosus and ischiourethralis muscles were transected close to their origin at the ischial arch using bipolar cauterisation. The dorsal penile and bulbous veins and penile artery were ligated using No. 0 catgut and transected. The retractor penis muscle and remaining penile attachments were dissected free from the ischium. The urethra was transected proximal to the bulbospongiosus muscle, leaving approximately 0.5 cm of urethra distal to the ischial arch to allow a tension-free anastomosis. The remaining wound was closed routinely using horizontal mattress sutures.

All dogs recovered uneventfully from anaesthesia and surgery. Urination through the urethrostomy was immediate and continent in all cases. Mild peri-stomal bruising and urine soiling were observed for up to 10 days postoperatively and managed with strict hygiene

[†]Corresponding author; E-mail: dishantag95@gmail.com

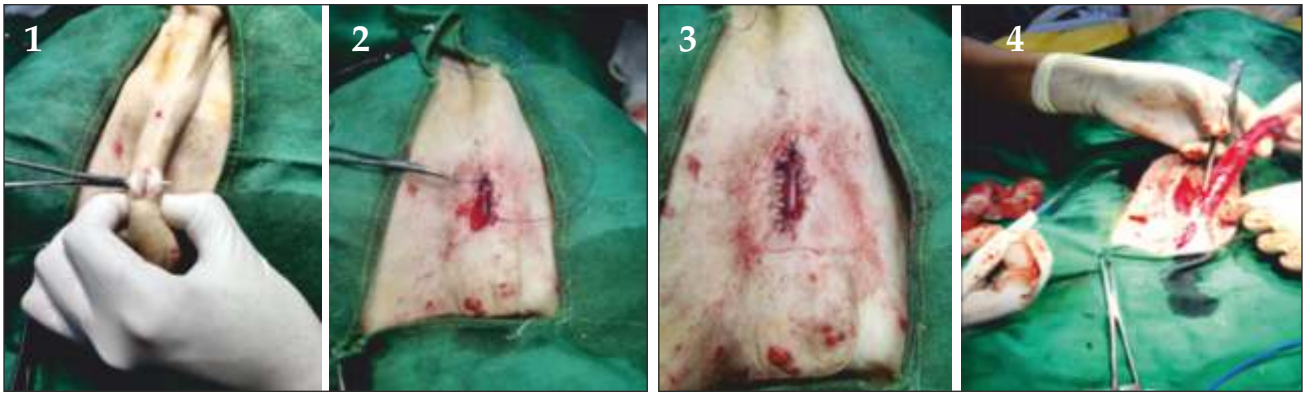

Fig. 1: Pre-scrotal incision and elevation of urethra with an artery forceps; **Fig. 2:** Anastomosis of urethra with skin with the help of 3-bite suture technique; **Fig. 3:** Urethral stoma formation; **Fig. 4:** Amputation of penis.

and topical petroleum jelly application. Postoperative medication included a 5-day course of amoxicillin-clavulanic acid and meloxicam. Skin sutures were removed on day 14, with no evidence of stricture at that time.

Postoperatively, all dogs exhibited intermittent haemorrhage from the urethrostomy site, occurring spontaneously or during/after urination for 3 to 21 days. In one case, the duration was not documented but had resolved on day 5. Mild peri-stomal bruising was observed in all dogs. Haemorrhage was managed conservatively with cold compress application during hospitalization.

At three-month follow-up, all dogs were continent, non-dysuric, and showed no urine scalding, with normal urination behaviour and high owner satisfaction. However, urethral stricture formation was observed at about 4-5 months postoperatively in all cases.

Pre-scrotal urethrostomy was selected in this study; however, scrotal urethrostomy is generally preferred due to the wider, more distensible, and more superficial nature of the membranous urethra at this site, which is associated with reduced haemorrhage (Fossum, 2007). Postoperative stricture formation may occur secondary to stomal complications, although it is generally considered uncommon (Boothe, 2003). The lower risk of stricture in some techniques has been attributed to the apposition of the membranous pelvic urethra to the skin, compared with the narrower penile urethra used in conventional approaches (Katayama *et al.*, 2018). Giansetto *et al.* (2022) reported a modified preputial urethrostomy technique in four dogs to preserve functional urethral anatomy.

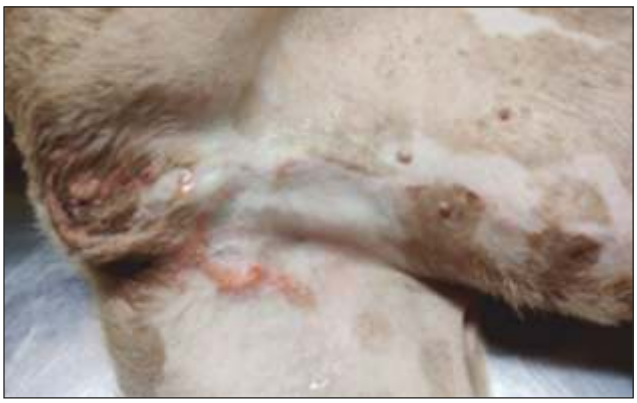

Fig. 5: Urethral stricture after 3 months.

Suture removal is generally performed 10-14 days postoperatively under sedation or mild anaesthesia, allowing assessment of stoma healing. Agrodnia *et al.* (2004) reported no increase in complications with absorbable sutures compared with non-absorbable materials. Other potential complications of urethrostomy include subcutaneous urine leakage with cellulitis and urine scalding of surrounding tissues (Bjorling, 2003), none of which were observed in the present study.

Overall, pre-scrotal urethrostomy combined with penile amputation appears to be an effective surgical approach for the management of penile anomalies in dogs; however, urethral stricture formation remains a significant long-term complication that warrants further investigation.

References

Agrodnia, M.D., Hauptman, J.G., Stanley, B.J. and Walshaw, R. 2004. A simple continuous pattern using absorbable suture for perineal urethrostomy in the cat: 18 cases J. Am. Anim. Hosp. Assoc. **40:** 479-483.

Bjorling, D.E. 2003. The urethra. *In*: Textbook of Small Animal Surgery, Slatter, D.E. (Ed), 3rd edn. Saunders. p 1643.

Boothe, H.W. 2003. Penis, prepuce and scrotum. *In*: Textbook of Small Animal Surgery, Slatter, D.E. (Ed), 3rd edn. Saunders. pp 1536-1538.

Fossum, T.W. 2007. Surgery of the bladder and urethra. *In*: Small Animal Surgery, Fossum. T.W. (Ed), 3rd edn. Mosby. p 673.

Giansetto, T., Broux, O., Bolen, G. and Claeys, S. 2022. Preputial urethrostomy with preservation of the local anatomy in 4 dogs. Vet. Surg. **51:** 1295-1303.

Katayama, M., Seki, T. and Takahira, A. 2018. Preputial reconstruction and urethrostomy after subtotal penile amputation in a dog. J. Hell. Vet. Med. Soc. **68:** 669-674.