

SURGICAL MANAGEMENT OF ACCIDENTALLY LODGED TOM CAT CATHETER IN A TOM CAT: A CASE REPORT

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ABSTRACT

A vesicular-urethral foreign body (VUFB) in felines is a rare but critical condition, necessitating prompt intervention. This case report documents a unique instance of an inadvertently lodged catheter as a VUFB in a three-year-old Tomcat. The animal presented with persistent pollakiuria and haematuria, unresponsive to prior treatment. Radiographic and ultrasonographic examinations revealed the presence of a urinary catheter within the urinary bladder and cranial urethra. The prompt surgical intervention and careful post-op care ensured successful foreign body removal. The case underscores the significance of early detection and intervention as crucial steps for positive outcomes in feline VUFB.

Keywords: Catheter obstruction, tomcat, surgical management

INTRODUCTION

A vesicular-urethral foreign body (VUFB) refers to any foreign object that becomes lodged within the urethra, causing obstruction and hindering normal urinary function. The VUFB in felines poses a unique and challenging problem which requires prompt and effective intervention (Cola *et al.*, 2019). The complications of VUFB include urinary tract infections leading to urethral plugs, urethral damage, and even life-threatening conditions like urethral rupture or renal failure. While this condition is relatively rare in cats, the consequences of an untreated vesicula-urethral foreign body can be dire, necessitating immediate attention and surgical intervention. A diverse range of foreign bodies has been identified from the feline urinary tract, such as urinary calculi, urethral plugs, hairballs, plant material, and various other foreign objects like grass awn which can be

either accidentally ingested or introduced (Cherbinsky *et al.*, 2010; Cola *et al.*, 2019).

This case report presents a particularly challenging case involving a vesiculo-urethral foreign body of an accidentally lodged catheter in a feline patient. In this case, successful surgical management highlights the importance of early diagnosis and intervention to achieve optimal clinical outcomes.

CASE HISTORY AND OBSERVATIONS

A three-year-old crossbred tom cat was presented to the Referral Veterinary Polyclinic, ICAR-IVRI, with a history of pollakiuria and haematuria for the past three weeks. The owner reported that the cat remained unresponsive towards medical management for the urinary tract infection. Physiological parameters were within the normal range. The abdominal examination revealed a contractile and painful urinary bladder. The abdominal ultrasonographic examination identified a linear structure with a hyperechogenic margin in the bladder lumen and cranial urethra, along with a thickened bladder wall (**Fig. 2**). General anaesthesia was induced using intramuscular injection of xylazine at a dose rate of 1 mg/kg and ketamine HCl at a dose rate of 11 mg/kg. The anaesthesia was

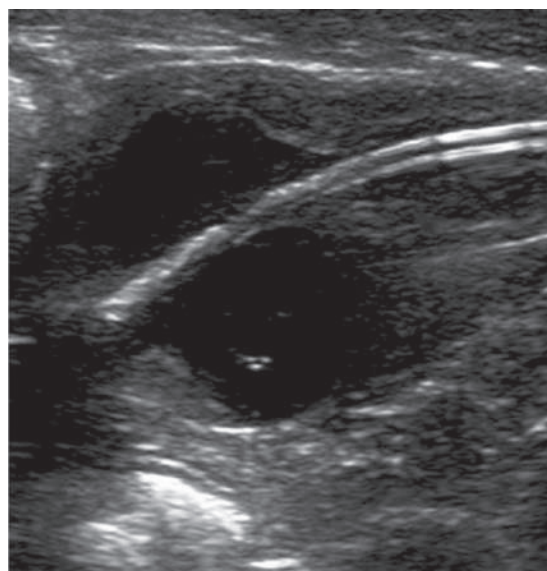


Fig. 1: Abdominal ultrasonography revealed the presence of a double-lined linear structure with a hyperechoic margin within the bladder and cranial urethra.



Fig. 2: A 6 cm long urinary catheter was identified and removed from the bladder.

maintained using a ketamine: xylazine (1:1) mixture up to effect. A standard midline cystotomy was performed. A 6 cm long urinary catheter was identified (**Fig. 2**) and removed from the bladder. The bladder was closed in a double-layer inverted suture pattern using a 3-0 polyglactin 910. The abdominal cavity was flushed thoroughly

with normal saline, and the abdominal and skin incision was sutured routinely.

Post-operatively animal was maintained in intravenous fluids for three days, along with antibiotics and other nutritional support for seven days. The skin sutures were removed on the 10th postoperative day. The animal made a complete recovery without any complications.

TREATMENT AND DISCUSSION

VUFB in cats are a rare but potentially life-threatening condition that requires prompt diagnosis and management. One unusual yet documented case is the presence of aurinary catheter as a VUFB in the urinary tract of felines. The clinical presentation of cats with an intravenous catheter as a VUFB may vary, but common signs include dysuria, stranguria, hematuria, and urethral obstruction. Additional symptoms may include restlessness, frequent licking of the genital area, and discomfort during urination. However, definitive diagnosis often requires imaging studies, such as radiography or ultrasonography, to visualize the foreign body within the urethra. The incidence of recurrent or chronic unexplained urinary tract infections should prompt a strong suspicion of the potential presence of a foreign object in the urethra and/or urinary bladder (Barzilai *et al.*, 2000).

The presence of aurinary catheter as a VUFB can lead to various complications like urinary tract infections, urethral stricture formation, and urinary incontinence. The severity of these complications may impact the overall prognosis for affected cats. Penile trauma by catheterization and the lodgement of broken catheters is a major but least recognised aetiology of urinary tract infection in cats (Corgozinho *et al.*, 2007). Surgical intervention is the primary treatment option for cats with an intravenous catheter as a VUF. The goal of surgery is to safely remove the foreign body while minimizing trauma to the urethra and surrounding tissues (Ozgermen and Avci, 2022).

CONCLUSION

The presence of an intravenous catheter as a VUFB is a rare yet significant condition in cats that warrants immediate attention and surgical management. Timely diagnosis through imaging studies is crucial to prevent serious complications, while surgical removal remains the cornerstone of treatment. Close postoperative monitoring is essential to identify and manage any potential complications effectively.

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REFERENCE

- Barzilai, M., Cohen, I., and Stein, A. 2000. Sonographic detection of a foreign body in the urethra and urinary bladder. *Urol. Int.* **64**(3):178-180.
- Cherbinsky, O., Westropp, J., Tinga, S., Jones, B., and Pollard, R. 2010. Ultrasonographic features of grass awns in the urinary bladder. *Vet. Radiol. Ultrasound*. **51**(4):462-465.
- Cola, V., Del Magno, S., Valentini, S., Zanardi, S., Foglia, A., Spinella, G., Capitani, O., Buracco, P., and Pisoni, L. 2019. Deep Vegetal Foreign Bodies in Cats: A Retrospective Study of 10 Cases. *J. Am. Anim. Hosp. Assoc.* **55**(5):249-255.
- Corgozinho, K.B., de Souza, H.J., Pereira, A.N., Belchior, C., da Silva, M.A., Martins, M. C., and Damico, C. B. 2007. Catheter-induced urethral trauma in cats with urethral obstruction. *J. Feline. Med. Surg.* **9**(6):481-486.
- Ozgermen, B.B., andAvci, N. 2022. Successful treatment of a urinary foreign body by cystotomy in a cat. *J. MVZ Cordoba*. **27**(2):e2346.