KatKath™

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Feline urethral obstruction

Urethral obstruction is a common problem encountered in veterinary practice. Obstruction most commonly results from feline lower urinary tract disease (FLUTD) and typically affects male cats. The obstruction may consist of urethral plugs, mucous, crystals or uroliths and is often compounded by urethral spasm. Most cases can be successfully unblocked by appropriate catheterization but the choice of catheter and the technique employed can have a major impact on the success of the procedure.

A feline patient presenting with complete urethral obstruction usually constitutes an emergency. Many patients will have severe metabolic and systemic derangements. Correction of these and stabilization of the patient is the first priority. Having successfully performed this, attention turns towards definitively relieving the urethral obstruction. Deep sedation or preferably general anaesthesia is required to provide sufficient analgesia and to relax the urethra. This will reduce the chance of iatrogenic trauma.

Selection of a catheter to relieve a urethral obstruction

One must give consideration to the type of catheter employed for this purpose. There are some features that should be considered before choosing a suitable catheter. These include:

- **Presence of an end hole**
  This permits concurrent flushing and helps propel uroliths or mucous plugs back into the bladder.
- **A small diameter**
  It needs to have a sufficiently small gauge to fit into the narrow penile urethra which is the location most commonly obstructed. 3.5Fr is suitable for most patients.
- **A thin wall**
  This means that luminal diameter will be maximised to facilitate flushing despite the small gauge of the catheter.
- **Sufficient longitudinal strength**
  This avoids the concertina effect when an obstruction is encountered with the tip. Ideally this strength can be achieved without the need for a stylet which is more traumatic, increases the risk of iatrogenic damage and interferes with flushing.
- **Low co-efficient of friction**
  Essential to help the catheter slide through an inflamed and oedematous urethra.

Selection of an indwelling catheter

Having successfully relieved a urethral obstruction one frequently has to leave an indwelling catheter in place whilst awaiting urethral inflammation to respond to appropriate medical therapy. Desirable characteristics that one looks for in an indwelling catheter differ from those of the catheter used to relieve the obstruction. These include:

- **Non-reactive material**
  The catheter must be manufactured from a non-reactive material that is well tolerated by the patient so that it can be left in situ for several days if needed. It must not cause irritation or inflammation to the urethral mucosa.
- **Flexibility**
  It must be pliable enough to move with the patient to maximise comfort.
- **Kink or crush resistance**
  It must be made of sufficiently strong material so that it does not kink. This is of particular importance at the hub where it is attached to the prepuce and experiences most bending forces.
- **Size**
  It is essential that the catheter is neither too wide which could exert pressure on the urethral mucosa or indeed too narrow which would allow the patient to urinate around it and predispose to urinary leakage and scald. Of equal importance is the length. Ideally the tip of the catheter should sit just within the lumen of the bladder. Shorter catheters will sit within the proximal urethra causing irritation and less efficient bladder drainage whereas excessively long catheters may coil inside the bladder causing irritation and possibly perforation. Catheters should therefore be available in various lengths or have a means to adjust their length.
- **Cost**
  This is an important criteria to be considered for catheters used for both indications.

KatKath™ Tomcat catheter

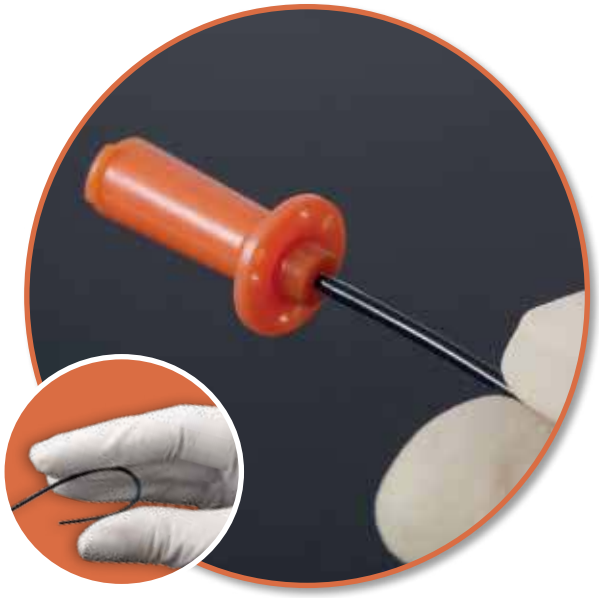
A novel urethral catheter with features that address the needs for unblocking the feline urethra at initial presentation whilst also being suitable to be used as an indwelling catheter. It is manufactured from a non-reactive material similar to Teflon. The material properties mean that it has excellent longitudinal strength which helps resist frustrating kinking during the

unblocking procedure and a low co-efficient of friction which eases passage through an inflamed urethra. It has an end hole and has no need for a stylet. The ability to simultaneously flush and catheterise is invaluable. The material choice means that it is manufactured with a very thin wall which maximises its luminal diameter and therefore flow of fluid through it. The rotating suture collar at the hub is a really nice design feature. This limits irritation to the prepuce if the catheter twists during patient movement when connected to a closed system. In my experience this improves tolerance.

At 3.5Fr it strikes a balance between being fine enough to unblock distal penile obstructions whilst being large enough to limit urination around the catheter when left in situ. Importantly it is available in three sizes; 11, 14 and 18cm making it suitable for all patient sizes.

The latter has wings which can be slid along the catheter to achieve the appropriate length for an individual patient. Being radio-opaque helps the clinician confirm that the catheter is an appropriate length if in doubt.

Because this catheter combines the desirable features of a catheter for relieving an obstruction as well as an indwelling catheter, it avoids the need to have two different catheters in your inventory. There is always that moment of trepidation when one has to remove a short rigid catheter following relief of a difficult obstruction to replace it with a longer, pliable indwelling catheter. The KatKath™ avoids this stress completely. It truly is a case of one catheter does it all. With it being competitively priced in the marketplace coupled with the need for only one catheter it is particularly cost-effective in practice.



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