



Tikrit University  
College of Veterinary Medicine

# Surgery of Urinary Bladder

Subject name: Practical Surgery

Subject year: five-stage

Lecturer name: Dr. Ali Ghazi Atiyah

Academic Email: [alighazivet@tu.edu.iq](mailto:alighazivet@tu.edu.iq)



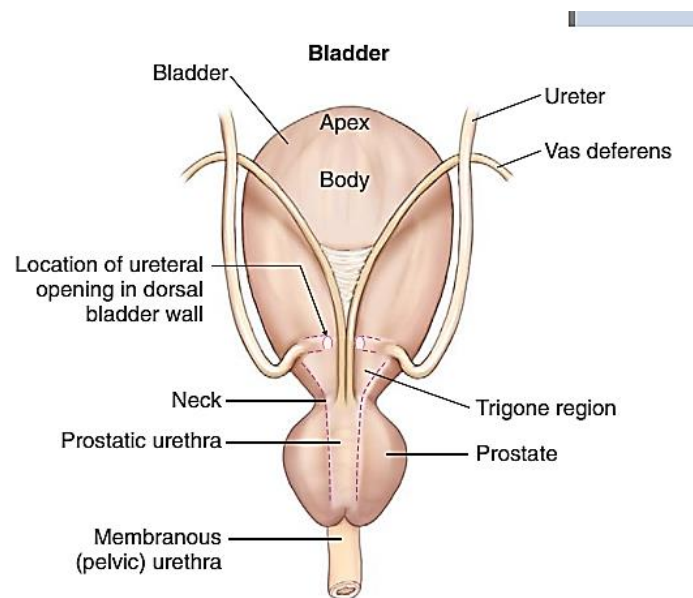
SCAN ME

Lecturers link

## Surgery of Urinary Bladder

### SURGICAL ANATOMY

- The urinary bladder location varies depending on the amount of urine it currently contains; when empty, it lies primarily within the pelvic cavity.
- The bladder is divided into the trigone, which connects it to the urethra, and the body.
- The bladder receives its blood supply from the cranial and caudal vesical arteries, which are branches of the umbilical and urogenital arteries, respectively.
- Sympathetic innervation is from the hypogastric nerves, whereas parasympathetic innervation is via the pelvic nerve. The pudendal nerve supplies somatic innervation to the external bladder sphincter and striated musculature of the urethra .



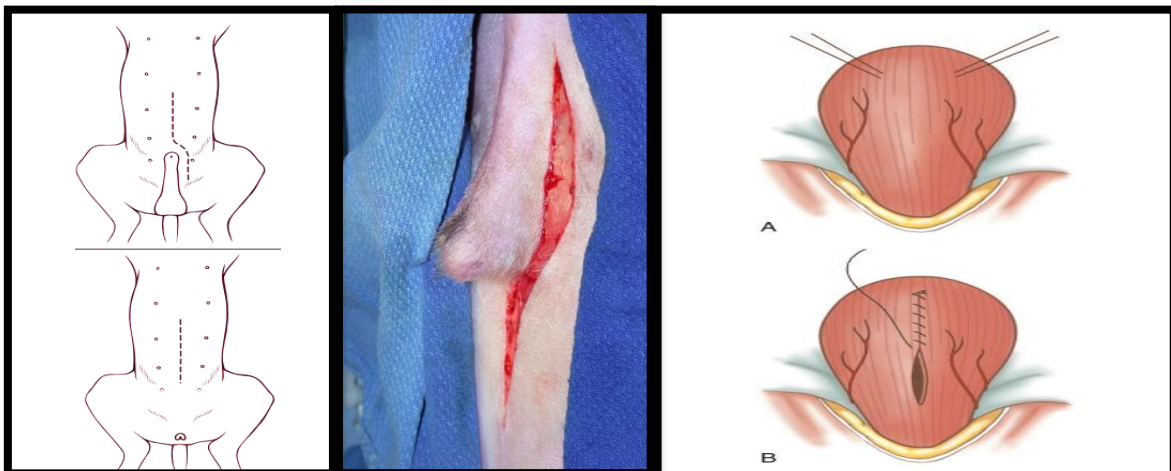
### Indication of

- 1- Removal of cystic and urethral calculi.
- 2- Repair of ectopic ureters.
- 3- Repair of bladder trauma.
- 4- Biopsy or resection of bladder masses.
- 5- Catheterization of the ureters.
- 6- Evaluation of urinary tract infection resistant to treatment.

### Cystotomy

### SURGICAL TECHNIQUES

- A midline laparotomy incision is made from the umbilicus to the pubis (curving parapreputially through the skin and subcutaneous tissue in male dogs).
- The bladder is identified and isolated from the rest of the abdomen with moistened laparotomy swabs, and a stay suture is placed in the apex.
- The cystotomy incision is performed approximately in the midline, but the surgeon should choose the least vascular region. A stab incision is made into the bladder using a scalpel blade, and residual urine and blood are removed using suction.
- The incision is extended cranially or caudally (or both) as needed, and further stay sutures are placed at the edges of the cystotomy incision.
- The bladder lining is inspected, and any abnormal areas are biopsied.
- NOTE : When removing cystic calculi, be sure to catheterize the urethra and flush until you are certain that the urethra is free of calculi. Leaving stones in the urethra is a common error.
- Close the bladder in a single layer using a continuous suture pattern with absorbable suture material, For a two-layer closure, suture the seromuscular layers with two continuous inverting suture lines (e.g., Cushing, followed by Lembert).
- Routine closure of the linea alba, subcutaneous tissue, and skin is performed, including reapposition of the preputialis muscle in male dogs.
- 



## **Complication**

- 1- Uroabdomen
- 2- transient hematuria
- 3- Urinary and fecal incontinence
- 4- infection