

PATHOLOGY – Genitourinary SAQ

1. List eight causes of ureteral obstruction.

Intrinsic

- *Calculi*
- *Strictures*
- *Tumours – TCC arising from ureter*
- *Blood clots*
- *Neurogenic bladder*

Extrinsic

- *Pregnancy*
- *Periureteral inflammation – diverticulitis, peritonitis, salpingitis, etc*
- *Endometriosis*
- *Tumours – Ca rectum, prostate, ovaries, lymphoma, sarcoma*

2. What is the effect of pelvic radiotherapy on the bladder?

Radiation cystitis – chronic non-specific inflammation

Urothelial carcinoma – can be years afterwards

3. What is the effect on the bladder of chronic outlet obstruction?

Initially, there is only thickening of the bladder wall due to smooth muscle hypertrophy. With progressive hypertrophy, the individual muscle bundles greatly enlarge and produce trabeculation of the bladder wall. Over time, crypts form and may be converted into diverticula. If the bladder becomes super dilated, the wall can become so stretched that it is now thin and lacks trabeculations.

4. What is phimosis?

Phimosis is when the origin of the prepuce is too small to permit its normal retraction. It can be congenital or from repeated attacks of infection that cause scarring. Phimosis can interfere with cleanliness which predisposes to further infection. In children, phimosis can obstruct urine flow and cause ballooning of the foreskin on urination.

5. What is cryptorchidism?

Cryptorchidism is a complete or partial failure of the intraabdominal testes to descend into the scrotal sac and is associated with testicular dysfunction and an increased risk of testicular cancer. It is found in about 1% of 1 year old boys. It usually occurs as an isolated anomaly but may be accompanied by other malformations such as hypospadias.

Cryptorchidism is usually unilateral, but is bilateral in 25% cases. Histological changes in the malpositioned testis begin as early as 2 years old and progresses to tubular atrophy and sterility.

There is a 3-5 fold increase in the risk for testicular cancer in the undescended testis. Orchidopexy reduces the risk of sterility and cancer but not back to baseline.

6. Where does prostate cancer spread?

Prostate cancer arises from the peripheral zone of the gland in 70%, usually posteriorly. Local extension can occur into periprostatic tissue, seminal vesicles and the base of the urinary bladder. Metastases spread via lymphatics to obturator nodes and then paraaortic nodes. Haematogenous spread occurs mainly to bones, is osteoblastic and is most commonly lumbar spine, then proximal femur, pelvis, thoracic spine and ribs.