Ureteroscopy & Uretero-renoscopy - A Patient’s Guide

What is ureteroscopy?
Ureteroscopy is the passage of a telescope into the upper urinary tract. It allows the surgeon to see what is going on to make a diagnosis and to treat conditions such as stone disease, obstructions and tumours.

How is ureteroscopy performed?
During ureteroscopy a telescope is passed from the urethra (the waterpipe through which you pass urine) through the bladder and into the ureter (the drainpipe connecting the kidney above to the bladder below). A long semi-rigid ureteroscope can reach the renal pelvis. A flexible uretero-renoscope can be passed all the way to the top of the inside of the kidney (upper pole calyces) and can be used to examine the whole of the inside of the kidney, being deflected down through the lower infundibulum into the lower pole calyces.

Sometimes a ureteric stent is placed in the urinary tract following ureteroscopy. This is a plastic tube with the top end curled up in the renal pelvis and the bottom end curled up in the bladder. It is usually removed easily at a later date under local anaesthetic using a flexible telescope. However, stents can cause urinary frequency/urgency, bleeding, urinary infection; loin pain (on urinating or straining) and can become calcified or migrate, both causing problems on removal. We try not to use stents unless we feel it is essential. (read: Ureteric Stents-A Patient’s Guide).

The procedure is usually performed as a day case (going home afterwards) under general anaesthetic (completely asleep) or very occasionally under a spinal anaesthetic (when you remain awake but have no sensation in your lower body).

What can be done during ureteroscopy?
Stones can be fragmented in the ureter or kidney with a LASER fibre passed up through the ureteroscope (semi-rigid or flexible) and fragments can be extracted with graspers or baskets.
Flexible uretero-renoscopy is often used to inspect the inside of a kidney if there is visible blood in the urine and other investigations have failed to provide an adequate explanation or reassurance. If a tumour is found it can be biopsied (a small sample of tissue taken) for microscopic examination although formal treatment will usually be deferred to another occasion. Small tumours can be destroyed by LASER.
Narrowings in the ureter or at the pelvi-ureteric junction (PUJ) can be lasered or dilated.

What are the serious or frequently occurring risks?

Common
- Mild bleeding or burning or bleeding on passing urine for a short period afterwards
- Loin pain can be marked following long & difficult procedures. You will be given pain killers.
- Temporary insertion of a bladder catheter (rare) or ureteric stent (see above) for removal later.

Occasional
- Kidney damage or infection needing further treatment.
- Failure. It is not always possible to gain entry to the ureter, to reach all the parts of the upper urinary tract, to find or treat a stone or to biopsy a tumour. Alternative arrangements are made.

Rare
- Ureteric perforation requiring a stent, a temporary tube through the back, or an open operation.
- Ureteric stricture (narrowing) – a late complication requiring further procedures.
- Ureteric disruption – extremely rare “pulling apart of the ureter” requiring a major open operation.