

Ureteroscopy 輸尿管鏡檢查

Introduction

Ureteroscopy (URS) is a procedure for diagnosis and treatment of pathology in ureter and renal pelvis. The endoscope used can be rigid or flexible. X-ray may be required during procedure. Ancillary procedures including ureteric stent insertion and removal may be necessary. URS with lithotripsy is one of the treatment options for ureteric stone. Alternative treatments of ureteric stone include SWL, PCNL, open or laparoscopic ureterolithotomy.

Indication of URS

1. Urinary stone
2. Ureteric obstruction
3. Urothelial and ureteric lesion in upper urinary tract

The procedure

The procedure may use general, regional or local anaesthesia. It is decided by Urologist and Anaesthetist. During the surgery, legs of patient will be elevated and put on a comfortable stirrup. Doctor will then pass an endoscope into urethra, bladder and finally ureter. Procedure is performed under video monitoring through the endoscope. Access sheath may be used to put in the ureter to allow easy re-entry during the procedure. Doctor identifies the stone or target lesion. Stone will be broken by instrument. Lesion such as tumor or stricture will be dealt with accordingly. X-ray sometimes may be required to guide the endoscope. Ureteric stent and urinary catheter may be inserted as required. Video recording of selected procedures may be carried out at some centers for academic purpose.

Risk and complications

1. Obstructive nephropathy
2. Urinary tract infection
3. Haematuria

Peri-operative complications

1. Anaesthetic complications and radiation hazard
2. Injury to adjacent organs including perforation of ureter (1-5%) and avulsion of ureter
3. Failed instrumentation, failed stone fragmentation, "lost" stone
4. Retained instrument

5. Conversion to open surgery or other interventional procedures

Post-operative complications

1. Urinary tract infection (~2-15%) and life threatening septicemia
2. Haematuria and dysuria
3. Residual stone and stone recurrence requiring repeating procedures and ancillary procedures
4. Ureteric stricture (0.5-2%, up to 25% with stone impaction)
5. Mortality (rare)

Before the procedure

Preparation appropriate to specific procedures will be prescribed, such as antibiotic prophylaxis or X-ray. Pulmonary and cardiac condition need to be optimized before operation. There should not be uncorrected coagulopathy or local infection. Female patients in reproductive age should be screened for pregnancy because X-ray would cause serious harm to fetus. Prophylaxis against deep vein thrombosis may be indicated in long procedures or patients at risk.

After the procedure

Postoperative care appropriate to specific procedures will be prescribed, such as need for fasting, monitoring, analgesics and sedation, catheterization, antibiotics cover, blood transfusion, and fluid replacement. There may be bloody urine. Patient may pass blood clot or stone pieces after removal of urinary catheter. Patient will be given instruction for removal of ureteric stent if required.

Follow up

Patient will be discharged when considered appropriate for specific operations. They should follow instruction for follow up given upon their discharge. If serious events develop after discharge, patient should seek medical advice at the nearest Accident and Emergency Department.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.