

Procedure Information Sheet - Percutaneous Nephroscopic Lithotripsy (PCNL)

Introduction

PCNL is a technique of removing stones from the kidney via a nephroscope passed into the kidney through a track from the skin surface previously established by the presence of a catheter.

Indication

Renal stones or ureteric stones.

Procedure

- The operation is usually performed under general anaesthesia.
- X ray guidance is required throughout the operation.
- Doctor may first perform endoscopy within your bladder and pass a catheter into the ureter for injection of contrast material.
- Doctor will make a small cut on your back and pass a needle through the skin to the kidney. The needle tract will be dilated.
- Instruments would be passed through the dilated tract and doctor will use these to break the stone and to take them out.
- After the operation, a tube is usually placed into the kidney and urine catheter is generally required.

Pre-operative preparation

1. You will need to sign a consent form and your doctor will explain to you the reason, procedure and possible complications.
2. Inform your doctor if you are pregnant.
3. Inform your doctor of any medical condition, for example diabetes, heart diseases, high blood pressure and any medications you take.
4. You would be assessed for your medical fitness for the procedure by your doctor.
5. You may have a series of check-ups including blood, urine tests and X- ray.
6. Keep fast for 6-8 hours before operation.
7. Your doctor will tell you whether you should continue your regular medications during the fasting period or may give you other instructions.
8. Some drugs including blood thinners and aspirin must need to discontinue before operation.
9. Preventive antibiotics therapy would be given to reduce risk of infection.

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Possible risks and complications

A. Common risks

- Like other invasive procedures, PCNL has some risks: bleeding, infection, wound pain, residual stone fragments requiring additional or ancillary procedures.

B. Uncommon risks and serious consequences

- Injury to adjacent organ, including perforation of gastrointestinal tract (<1%), pleural cavity and lungs (1-3%), spleen and liver.
- Injury to urinary tract.
- Bleeding causing haematoma and clot retention, that requires blood transfusion (10-30%), radiological or surgical intervention (1-3%) and possibility of nephrectomy.
- Failed percutaneous access or stone retrieval, ureteric obstruction due to stone fragment.
- Conversion to open surgery or other interventional procedure.
- Sepsis (1-2%).
- Impairment or loss of kidney function.
- Mortality (<0.5%).

Post-operative information

A. Hospital care

1. You will be closely monitored your blood pressure, pulse, and signs of bleeding and level of pain by nurse.
2. You can expect mild pain at the incision area.
3. You may have intravenous fluid given and doctor will put you back to normal diet when your conditions have improved.
4. You are encouraged to do deep breathing and coughing exercise to prevent chest infection.
5. Blood stained urine is expected coming out from the kidney drain and the urine catheter for a few days.
6. Kidney drainage tube and urine catheter will be removed as soon as it is indicated.



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B. Home care after discharge

1. Please comply with the medication regime and take analgesic as prescribed by your doctor.
2. It is advised to drink 3-4 liters of water per day to increase the urine output to 2-3 liters per day. It will facilitate the passage of stones.
3. Wound will heal up about one week after removal of the nephrostomy tube.
4. Stone formation can be prevented by a well balanced diet of high fibre with low salt, sugar and fat.
5. Please contact your doctor or go back to hospital if excessive bleeding, collapse, severe pain or signs of infection at your wound site such as redness, swelling or fever (body temperature above 38°C or 100°F) etc.
6. Follow up on schedule as instructed by your doctor.

Remark

The above mentioned procedural information is not exhaustive, other unforeseen complications may occur in special patient groups or different individual. Please contact your physician for further enquiry.

Reference: http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html

I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. _____. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

Name:	
Pt No.:	Case No.:
Sex/Age:	Unit Bed No.:
Case Reg Date & Time:	
Attn Dr:	

Patient / Relative Signature: _____

Patient / Relative Name: _____

Relationship (if any): _____

Date: _____