When to come to the Emergency Department?

- Unbearable pain
- Persistent hematuria with or without clots
- Persistent leakage through the wound
- Fever

Follow up:

- Generally after two weeks
- You will have an appointment at the outpatient clinic
- Removal of the ureteric stent will be discussed with your doctor

Patient Education for Percutaneous Nephrolithotomy (PCNL)



Patient's sticker



عضو في مؤسسة حمد الطبية چيد A Member of Hamad Medical Corporation

Patient education for percutaneous nephrolithotomy (PCNL)

What is PCNL

PCNL is a surgical procedure to safely remove large stones from the kidney through a small skin incision, allowing more rapid recovery. Through this method, kidney stones are removed using a scope passed through a small skin incision made in the flank into the kidney under complete anesthesia. The procedure involves two steps: the first is establishing a tract or access path into the kidney, and the second is stone fragmentation and removal using special operating instruments. The access is often obtained by passing a thin needle into the kidney. Then, the access is stretched to allow the introduction of surgical instruments. Once the tract is dilated up to about one centimeter, a plastic sheath is then placed into the kidney. An operating scope (nephroscope) is then passed through the tube into the kidney. Small stones can be removed with grasper. Larger stones need to be broken up before they can be removed. An attempt is made to remove all of the stones.

Once stone removal is complete, a double–J stent running from the kidney to the bladder and a small external tube may be left in the kidney to allow urine to drain. Usually, external tubes can be removed within a few days. The patient is discharged from the hospital with the double–J stent, which is to be removed at the URO OPD Clinic under local anesthesia after two to three weeks with a flexible cystoscope. Regular hospital stay is three to five days on average.



Who is this recommended for?

The procedure is recommended for patients with kidney stones that are too large or numerous for shock wave lithotripsy or other less invasive surgical methods.

What are the complications of PCNL?

Major complications from PCNL are uncommon, but, potentially, can be serious. Possible complications include:

Injury to other organs, particularly the bowel

- Major bleeding requiring blood transfusion or additional procedures for control
- Infection
- Collection of fluid in the chest requiring drainage

Precautions after discharging home from hospital

Recovery from percutaneous stone surgery is usually rapid. Patients may return to normal, but not excessively strenuous activity as soon as they leave the hospital. Unless heavy physical duty is required, return to work is often possible within a week after discharge from hospital. Nevertheless, avoid excessive physical activity and heavy weight lifting during the first two weeks. Keep up normal personal hygiene. A Double-J stent can result in urinary urgency, frequency, and temporary hematuria on and off. These symptoms are normal and can be eased by medications prescribed upon discharge. During voiding some portion of urine can reflux towards the kidney due to the stent, causing loin discomfort or pain. Therefore, please empty your bladder gently, with a lower pressure.

Your previously taken blood thinning medications will be resumed by your doctor as soon as possible, depending on your recovery from the surgery.