

INSERTION OF STENTS FOR OBSTRUCTED KIDNEYS

Introduction

The kidney produces urine that passes to the bladder through a 20-25cm thin tube called the ureter. When the ureter is blocked, the kidney obstructs and pain is felt in the flank area. This may be due to something stuck within the tube such as stones, tissue or blood clots, or a mass squeezing the tube from the outside. The ureter itself may also be narrow due to thickening or scarring. The obstruction can be relieved temporarily by passing a JJ stent (plastic tube with curls on either end) into the ureter from the bladder or a nephrostomy tube directly into the kidney through the back. A CT scan will help diagnose the problem. JJ stents can be left in the body for up to 12 months if the condition is not treatable or reversible, however some may move, block or get infected and require more frequent changes every 3-6 months.

What does the procedure involve?

Under general anaesthesia, a telescope or cystoscope is passed into the bladder and dye injected into the ureter (tube that joins the kidney to the bladder) to outline the upper urinary tract and locate the site of the blockage. A long thin flexible telescope or ureteroscope may be passed up the ureter into the kidney to look for a cause. Stones can be broken up using laser energy and tumours or polyps can be biopsied to check if they are cancerous. A JJ stent is then placed to bypass the blockage and allow urine to drain freely. Stents can be exchanged later down the track or removed under local anaesthetic using a flexible cystoscope if no longer required.

JJ stent video (2:24 mins) <https://www.youtube.com/watch?v=N9fc96ohTpk>

What are the alternatives?

Nephrostomy tube
Observation

What are the risks of surgery?

Common (>10%)

Frequency, urgency and burning (due to irritation of the bladder lining)
Blood in the urine (due to minor trauma to the bladder lining)

Occasional (1-5%)

Infection
Obstruction (due to sediment or persistent compression)
Failed stent insertion (very tight blockage prohibiting entry)

Rare (<1%)

Anaesthetic or cardiorespiratory problems - intensive care

Chest infection, clots in the legs and lung, stroke, heart attack, death

What should I do before surgery?

- Test the urine 2 weeks prior to the procedure to ensure there is no infection
- Do not eat, drink, or chew gum for 6 hours before surgery
- If you are on blood thinning medication, discuss this with Dr Ooi

What should I expect after surgery?

Most patients stay overnight, however if you wish to go home the same day, please ask someone to stay with you for the first 24 hours. Ask for pain or nausea medication if required and go for short walks to improve breathing and circulation. If a catheter was inserted to drain the bladder, this will be removed prior to discharge.

Discharge information

Drink 2L of fluid each day and have a normal diet. Use Ural sachets every 4 hours to relieve any stinging or burning when passing urine. Restart blood-thinning medications after discharge if there are no bleeding issues.

It is normal to see amounts of blood in the urine intermittently and experience pelvic or back discomfort during physical activities or when passing urine (pressure transmitted to the kidney through the JJ stent). If simple pain killers are not enough, ask Dr Ooi for other medications to relieve the symptoms.

Please contact Dr Ooi's rooms, the hospital, ward or nurse manager if you have any concerns, such as excessive pain, bleeding, difficulty emptying your bladder, fever or feel unwell. General advice is also available on our website in the Procedures section.

Appointments

Once a JJ stent has been placed, further management depends on the cause of the obstruction. If there is scarring due to previous cancer treatment, stents can be used to drain the kidney as long as they are monitored and changed regularly. If there is a cancerous mass growing inside or around the ureter, then further surgery and/or chemoradiotherapy will be necessary.

Stents cannot be left in the body for more than 12 months as they may encrust, block and become very difficult to remove. In some circumstances such as pregnancy or recurrent stone formation, these stents may only work for 6-12 weeks.

Please ensure that Dr Ooi gives you a clear plan to remove or change the stent at your follow-up consultation.