

TRANSURETHRAL RESECTION OF BLADDER TUMOUR (TURBT)

Introduction

Bladder cancers are common and occur in 1 in 100 people. The cancer usually affects the cells lining the inside of your bladder. Two thirds grow into the bladder cavity (superficial or non-invasive) whilst one third penetrate the bladder wall (deep or muscle invasive). Symptoms of bladder cancer include blood in the urine, needing to pass urine frequently, pain and difficulty hanging on or getting to the toilet in time.

The risk factors for bladder cancer are smoking cigarettes, cigars or pipes, age >40 years, male gender, previous cyclophosphamide or radiation cancer treatment, recurrent urinary tract infections over many years and chronic occupational exposure to chemicals, dyes, arsenic, heavy metals and paint.

Bladder cancers are diagnosed on cystoscopy, where a red patch, polyp or growth is seen through a telescope passed into the bladder. Tests such as urine cytology, ultrasound and CT scans may pick up large or aggressive cancers but miss small tumours. Bladder cancers are removed under general or spinal anaesthesia through a minimally invasive procedure called transurethral resection of bladder tumour.

What does the procedure involve?

Bladder tumours are resected from the bladder wall using an electric wire passed through a resectoscope (large cystoscope with a working channel). The bladder wall is then cauterised or charred with electrical energy to kill remaining cancerous cells and seal tiny blood vessels. The bladder lining will then regenerate and fill the defect over the next few weeks. The surgery takes 30-60 minutes depending on the size and number of tumours. The bladder tissue or biopsies that were removed are sent to a pathologist for analysis and a catheter is placed in the urethra to irrigate the bladder.

TURBT video (2:07 mins) <https://www.youtube.com/watch?v=Jlu6tK6jZx8>

What are the alternatives or adjuncts to treatment?

Narrow band imaging - blue and green light wavelengths to improve optics
Photodynamic diagnosis - chemical instilled into bladder to improve optics
Bladder biopsy - round forceps used to sample tissue
Diathermy - match head electrode to apply cautery
Mitomycin - chemotherapy drug instilled after TURBT to kill cancer cells

What are the risks of surgery?

Occasional (5-10%)

Infection
Bleeding

Uncommon (1-5%)

Prolonged bladder irritation - weeks to months

Rare (<1%)

Bladder perforation - catheter and antibiotics

Blood loss requiring transfusion

Anaesthetic or cardiorespiratory problems - intensive care

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

What should I do before surgery?

- Do not eat, drink or chew gum for 6 hours before surgery
- If you are on blood thinning medication, discuss this with Dr Ooi
- If you smoke, quitting makes anaesthesia safer and reduces complications

What should I expect after surgery?

The usual hospital stay is one night. You will have a catheter that is connected to bags of sterile saline to wash out any blood or clots in the bladder. The oozing usually stops within a few hours and the irrigation is turned off. The catheter is removed the following morning if the urine remains clear. The nurses will check that you are emptying your bladder comfortably before discharge.

Discharge information

Take Ural sachets every 4 hours to relieve any stinging or burning whilst passing urine. Blood-thinning drugs can be restarted the next day if there is minimal bleeding, and the urine colour is light rose or clear. You can drive once you are off any medications that cause drowsiness and can do so safely. Most people take one week off work to convalesce.

Please contact Dr Ooi's rooms, the hospital, ward or nurse manager if you have any concerns, such as excessive pain, bleeding, passing large clots, difficulty emptying your bladder, fever or feel unwell. General advice is also available on our website in the Procedures section. If you are still concerned or do not know what to do, please go to the nearest emergency department.

Appointments

Dr Ooi will see you 1-2 weeks after surgery to discuss your pathology results. If you live remotely and things are going well, you may prefer to have a telephone call instead of a face-to-face consultation.