Transurethral resection of the prostate (TURP)

Transurethral resection of the prostate (TURP) is the most common operation performed for difficulty passing urine due to prostatic obstruction. Up to one in four men has a TURP and it has been the standard prostate operation to relieve obstructive symptoms for the last 40 years. The operation aims to improve the urinary stream, enhance bladder emptying and improve urinary frequency and nocturia (trips to the toilet at night). It is a safe and usually effective operation, with recent modifications involving the use of lasers.

Pre-operative preparation

Platelet inhibitors such as clopidogrel and usually aspirin should be stopped for a week. Anti-arthritic tablets should be stopped for 3 days. Special arrangements will need to be made for men on warfarin. Blood is usually typed for the larger prostates but transfusion is uncommon. Fasting from food for 5 hours and clear fluids for 2 hours is required preoperatively.

The anaesthetic

The operation is performed either under a general anaesthetic or more commonly a spinal anaesthetic. With the latter procedure a tiny needle injects local anaesthetic into the spinal fluid through the back. This causes numbness from the waist down so that the operation can be performed with no feeling whilst being awake with whatever degree of sedation is desired.

The operation

An operating telescope is inserted into the penis. A camera on the telescope projects the picture on to a TV monitor and the operation is performed with the surgeon watching this. A high frequency electric current passing through a wire cutting loop at the end of the telescope resects the prostate in small pieces or the holmium laser is used to enucleate the prostate in chunks. The chips or chunks wash into the bladder and are rinsed out at the end of the procedure or a morcellator is used to grind the chunks and suck these out. At the completion of the operation a catheter is inserted through the urethra up the penis to enable urine to be drained continuously. Irrigation fluid is run through the catheter into the bladder to prevent any clots forming.

Post-operative management

Usually there is no great discomfort and analgesia is not often required. This is especially seen in the case of those who have a spinal anaesthetic where the numbness down below lasts for several hours. It is usual to disconnect the irrigation and the intravenous drip either the night of surgery or the next morning. Diet can normally be resumed the day of surgery

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and a high fluid intake is encouraged. The catheter is usually removed the next day, either in the morning or at night depending on the urine colour. The first few voids are often associated with some burning and bleeding and a high fluid intake is again encouraged. Discharge from hospital is usual after one or two nights. On discharge from hospital a high fluid intake should be maintained while the urine is still blood stained. Strenuous activity should be avoided for a few weeks to minimise the chance of re-bleeding. Sexual intercourse similarly may cause more bleeding in the first few weeks and should be avoided. Ideally blood thinning medication such as aspirin should be avoided for about 3 weeks. The time required off work varies enormously depending on occupation and the symptoms experienced and would be 2 weeks on average. Follow-up is usually at about 4 weeks but complete healing and resolution of symptoms may take 6 - 8 weeks.

Laser bladder neck incision:

This lesser procedure may be performed alone or combined with a TURP where both the prostate and bladder neck are thought to be obstructive. Bladder neck incision is performed where there is significant bladder outlet obstruction due to a tight bladder neck with only small prostate lobes or prior to prostate brachytherapy where little tissue can be removed. This may be a primary procedure or sometimes for a secondary bladder neck contracture after a past TURP.

Risks and implications of surgery:

Medical Problems:

Any anaesthetic or operation carries a small risk of heart trouble, chest infections, deep vein thrombosis but these are very uncommon with this surgery.

Bleeding:

Post-operative haematuria (blood in the urine) may last between a couple of days and several weeks. About 2% of patients experience a significant episode of bleeding (secondary haemorrhage) about 10 days post-operatively. This usually settles with rest and a high fluid intake but on occasions requires re-admission to hospital for catheterisation and a bladder washout.

Urinary Tract Infections:

These may occur as a result of instrumentation during the operation or the catheter post-operatively. Prophylactic antibiotics are given to those at high risk. The few who develop an infection post-operatively are usually simply treated with oral antibiotics. After leaving hospital, persistent burning on passing urine, smelly or cloudy urine or fevers, may indicate an infection and the urine should be checked.

Need for Further Surgery:

The prostate can continue to grow, even after a thorough TURP and recurrent bladder outlet obstruction can be due to this, contracture of the bladder neck or urethra strictures. Repeat surgery required to deal with any of these problems is seen in about 10-15% of men over the years.

Malignancy:

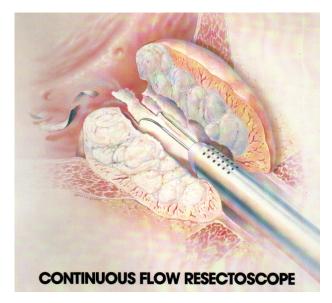
The prostate will have been screened pre-operatively for cancer but even if not suspected, in up to 10% of prostates thought pre-operatively to be benign, some cancer can be found and this may or may not require treatment as a separate issue.

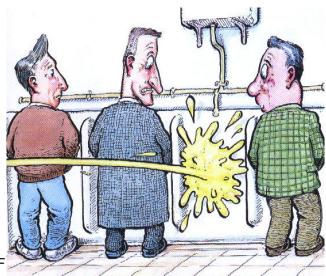
Sexual dysfunction:

Retrograde ejaculation is to be expected after a TURP. At orgasm, the ejaculate follows the path of least resistance and goes back into the bladder from the ejaculatory ducts, passing out in the urine at the next void with sensation of orgasm maintained. Occasional patients are reported to have found their erections affected post-operatively but this is very rare and not expected. There is no physiological reason why there should be a problem and there is recent evidence suggesting some improvement in erections after relief of prostatic obstruction.

Incontinence:

Inability to hold urine is very uncommon and statistically seen in 2% of patients. There is a higher risk if you have a coincident neurological problem such as a stroke or Parkinson's disease, have prostate cancer or have had radiotherapy.





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