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Transurethral Resection of the Prostate (TURP)

Trans-urethral 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 30 years. The operation aims to improve the urinary stream, enhance bladder emptying and improve urinary frequency. It is a safe and usually effective operation, still regarded as the gold standard despite challenges from laser techniques etc.

Pre-operative preparation

Aspirin and other platelet inhibiting such as clopidogrel should be stopped for 7–10 days. Anti-arthritis tablets should be stopped for 5 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 pre-operatively.

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. This enables you to watch the TV monitor if you desire and follow the operation. Alternatively a light sedative can be given so that you can doze off to sleep without actually being anaesthetised.

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. The chips wash into the bladder and are rinsed out at the end of the procedure. This takes about an hour depending on the size of the prostate. 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 and a high fluid intake is encouraged. Help may be required to stimulate bowel activity before discharge to avoid straining as this can increase the bleeding in the urine.

If the urine is fairly clear the day after surgery fluid intake during the evening can be slowed prior to removing the catheter at about 10.00 pm. The first few voids overnight and the next day are likely to be associated with some burning and bleeding and a high fluid intake is again encouraged. Discharge from hospital after this second post-operative night is usual.

On discharge from hospital a high fluid intake should be maintained just 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. It 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.

Variations of the technique:

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 incisions are performed using the same instruments as for a TURP but with a different electrode. Bladder neck incisions are performed where there is significant bladder outlet obstruction due to a tight bladder neck with only small prostate lobes. This may be a primary procedure or sometimes for a secondary bladder neck contracture after a past TURP.

Roller ball electro-ablation of the prostate:

This technique utilises a higher frequency current, a different electrode but the same instruments. The prostate is vaporised and results in reduced bleeding. It may be combined with the standard TURP or BNI's.

Risks and Implications of endoscopic prostate surgery:

Retrograde ejaculation:

This is to be expected and is mostly seen after a TURP. At orgasm, the ejaculate follows the path of least resistance and goes back into the bladder from the ejaculatory ducts. It passes out in the urine next time you pass urine. However the sensation of orgasm is maintained.

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.

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.

Impotence:

Occasional patients are reported to have found their erections to be not as strong post-operatively. However this is very uncommon and rarely seen in practice. There is no physiological reason why there should be a problem. There is recent evidence suggesting some improvement in erections after relief of prostatic obstruction.

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.

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.

Need for Further Surgery:

Although the prostate can continue to grow, even after a thorough TURP, recurrent bladder outlet obstruction is more often due to contracture of the capsule of the prostate. The bladder neck can scar up and the urethra can form strictures. Repeat surgery required to deal with any of these problems is seen in about 10-15% of cases 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. This may or may not require treatment as a separate issue.