



Ureteric Stents

A ureteric stent is a fine tube which is made of silicon or soft plastic which is placed in the ureter to allow the urine to drain from the kidney to the bladder.

Stents are used to relieve obstruction in the ureter. Usually the obstruction is swelling that has been caused by a stone and its removal. No matter how carefully a procedure is carried out it is possible for infection to develop. If infection develops in the kidney which is obstructed, then a serious infection may develop with permanent kidney damage. It is also possible that infection may get into the bloodstream and cause damage to other organs. This kind of problem usually requires admission to intensive care and may result in death, therefore stents are inserted to reduce the chance of that.

Stents are sometimes referred to as a "pigtail" or "double J". This is the description of the ends of the stent. The curl at the kidney end prevents the stent from falling down and the curl on the lower end in the bladder prevents the stent from migrating up towards the kidney.

The stent is inserted over a very fine guidewire. This is a very finely coiled spring with a soft tip which allows the stent to be passed around the curved ureter and into the area called the renal pelvis. The renal pelvis is the area of the kidney which collects the urine prior to sending it down to the ureter.

The finely coiled guidewire is passed through a hollow cystoscope or telescope inserted into the bladder and up to the ureter and then the plastic stent is fed over the top of the guidewire. The guidewire is then removed.

The stent allows the urine to drain through its hollow centre and usually has multiple guide holes so that whatever level of obstruction occurs the urine can drain in and out of the stent.

Stents are designed to be temporary but may stay in place for up to a period of six months. It is extremely important that a patient should know when the stent is due for removal.

If stents are left in place too long then crystals from the urine may develop on their surface and these may subsequently develop into stones. This may mean that it is extremely difficult and sometimes impossible to remove the stent without a major operation. In addition, urinary alkalinisers such as Ural or Citravescent should be avoided as these substances allow phosphates to deposit on the stone and combine with calcium to form stones also.

Stents can cause discomfort and irritation and may cause some blood to be present in the urine. Generally speaking, it is best to consume at least 2 litres of water per day in order to ensure that urine flow is adequate.

Sometimes the bladder end of the stent sits on the sensitive part of the bladder giving the patient the urge to go to the toilet frequently. This urge may be reduced by leaning back when sitting down in order to lift the end of the stent off the bladder base.

If a patient uses the abdomen muscles to push the urine out, then it is possible for urine to move backwards, up the stent. This is bypassing the natural valve at the junction of the ureter in the bladder which normally prevents this reflux. In this situation the patient may experience some discomfort in the side similar to a "stitch". For this reason, the patient should not "push" to pass urine.

Sometimes after passing urine and walking away from the toilet, the patient will experience the feeling of more urine present. That is usually the urine which has been forced back into the kidney coming back down into the bladder and it may be helpful to wait 10 to 20 seconds after thinking that urination has finished to allow that small volume to pass down and be passed out appropriately.

Finally

It is extremely important that the patient should be informed regarding the timing of the removal of the stent.

That will require the passage of a cystoscope into the bladder in order to have it removed and will require an admission to day surgery for that procedure.