

Partial Nephrectomy

This is a procedure carried out in an effort to cure kidney cancer. The cancer and a small part of the surrounding kidney is removed as opposed to a radical nephrectomy, where the whole kidney is removed. Partial Nephrectomy is now the treatment of choice in patients with kidney cancer as it allows preservation of renal function and it has been shown to be safe from the cancer point of view.

Depending on the size and location of the tumour the procedure can be technically very difficult and it must be recognised that removal of the whole kidney is always a risk of the procedure.

Procedure

The operation is carried out under general anaesthetic at Grace Hospital. You will be admitted on the morning of the surgery. It is important you have nothing to eat or drink for at least six hours prior to your operation. The anaesthetist may place an epidural catheter into your back which helps with post-operative pain relief prior to putting you to sleep.

The procedure itself is performed through a flank incision based on either the 11th or 12th rib. The kidney is mobilised and the artery to the kidney may be temporarily clamped to allow safe removal of the tumour. Occasionally, a ureteric stent is required. This is a temporary tube to help drain urine from the kidney, and is required if the tumour is close to the drainage system of the kidney. It is usually removed at the rooms with a flexible cystoscope 4-6 weeks after surgery. The surgical wound is then closed with absorbable sutures and a drain is placed.

The operation takes around 2 hours and the usual hospital stay is about 5 days. A urinary catheter is usually required for the first few days and this will be put in when you are asleep.

Post Procedure

With modern pain relief most patients feel pretty good and are able to receive visitors within about three hours of the operation finishing. Because of the risk of nausea you will only be able to have oral fluids on the day of surgery, the following day if you feel all right you can eat as normal. You will be encouraged to get out of bed on the first post-operative day, don't be surprised if you feel a little woozy initially. A subcutaneous anticlotting injection will be used until you are mobilising. This is to prevent blood clots forming in your legs and lungs

Results

We usually have the cancer results within 7 to 10 days after the procedure. We realise that this can be quite an anxious time and as soon as we get the results we will phone you and let you know what they are. We usually like to see you back in the rooms about 6 weeks following the procedure.

Complications

All surgical procedures are associated with some risk. General risks include that of wound infection, blood clot formation and pneumonia but in practice these are rare. The specific risks relating to partial nephrectomy are outlined below.

Intraoperative complications

The trade off of performing a partial nephrectomy, as opposed to removing the whole kidney, is a slightly increased risk of bleeding. Having said that, we have a full range of surgical technology available

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which minimises this risk. The risk of bleeding requiring a blood transfusion is approximately 5%. If bleeding is unable to be adequately controlled then it is possible that the safest thing to do is remove the entire kidney. Likewise, if there are questions about being able to obtain adequate surgical margins around the tumour then the entire kidney may need to be removed.

Post-operative complications

The main risks following this procedure relate to the wound and are due to the particular anatomy of the nerves that supply the flank muscles.

Urine Leakage

The tumour may impinge on the drainage system of the kidney and occasionally this needs to be opened in order to get clear margins around the tumour. If this is the case it is repaired and a stent placed (see above). Occasionally a significant urine leakage can occur which requires the drain to stay in for longer than normal.

Flank bulge

A number of patients will experience a bulge in the flank at the site of the wound. This occurs because the nerves that supply the flank muscles (intercostal nerves), run straight across the wound and need to be divided in order to allow access to the kidney. If only one of these nerves run across the wound then there is usually no issue, if there are 2 then it is not usually a problem but if there are 3 most people will develop a bulge. This is usually not uncomfortable but can look a little asymmetrical. It is not a hernia. If it is a problem sometimes a mesh repair may be required.

Numbness

Because sensory nerves are cut many patients develop an area of numbness below the wound. Often this gradually decreases in size with time and in most patients it is not an issue.

Neuroma

In a minority of patients the cut the ends of the intercostal nerves sprout abnormal fibres during the healing phase. This is called a neuroma. Whilst this is rare it can be very uncomfortable and treatment may be difficult.

Return to Work

This depends on your job. In the first few weeks post operatively, most patients get very tired in the afternoons. If you have a desk job you could be expect to be back at work after about 4 weeks. If you do a very physical job it may take up to 12 weeks before you are ready to return to work.

Follow-up

The removed kidney tumour will be examined by the pathologist and we will let you know the results as soon as we have them. This is usually within two weeks post operatively. Further management from the cancer point of view depends a little on the riskiness of your disease. Radiotherapy is unfortunately not useful in kidney cancer and the utility of various chemotherapeutic regimes remains controversial at this point.

Your further follow-up and screening from the cancer point of view will be personalised and we will discuss this with you at your follow-up appointment.



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