



BLADDER CANCER

What is bladder cancer ?

A malignant tumour is a lump of tissue made from cancer cells that continue to multiply in the bladder. Malignant tumours can invade into nearby tissues and organs, causing damage. They may also spread to other parts of the body and this happens if some cells break off from the primary tumour and are carried to other areas of the body in the bloodstream or lymph channels.

What are the types of bladder cancer ?

In most cases, the bladder cancer develops from cells that line the inside of the bladder, which is known as transitional cell bladder cancer. There are two types of transitional cell bladder cancer:

Superficial tumours occur in about 80% of cases. Superficial tumours are confined to the inner lining of the bladder and so called because the cells which form this type of cancer can form little growths which stick out from the bladder's inner lining. Superficial tumours rarely spread and are often cured. If left untreated they can develop into muscle invasive tumours.

Muscle invasive tumours occur in about 20% cases. Muscle invasive tumours are so called when they have spread to the muscle layer of the bladder or through the wall of the bladder. These tumours have a high risk of spreading to other parts of the body (metastasis), and have less of a chance of being cured.

What are the symptoms of bladder cancer ?

Blood in urine – most of the time the first symptom is haematuria (passing blood in urine), which is usually painless. The blood in the urine may come and go as the tumour bleeds from time to time.

Some tumours may also cause symptoms similar to a bladder infection such as:

Frequently passing urine

Pain when passing urine

Various other symptoms may develop if the cancer has spread.

What are the causes of bladder cancer ?

In many cases, the reason why a cancer develops is not known, but these factors are known to effect the chance of bladder cancer developing:

Smoking – bladder cancer is four times more common in people who smoke than those who do not, since the chemicals from tobacco are damaging to the bladder cells. It is estimated that 1 in 3 bladder cancers are smoking-related.

Chemicals – some workplace and environmental chemicals have been linked to bladder cancer. One example is the substances used in the rubber and dye industries. Bladder



cancer may still develop as late as 25 years after exposure to certain chemicals.

Age – most bladder cancers occur in people over the age of 50 and it is rare in people under 40 years old.

Bladder infections – repeated bouts of bladder infection may also slightly increase the risk

Chemotherapy – patients who have previously undergone chemotherapy or radiotherapy have an increased risk of bladder cancer.

How is bladder cancer diagnosed ?

Urine microscopy and cytology – a sample of urine is examined under a microscope to look for cancerous cells.

Ultrasound – sound waves are used to create images of organs and structures inside your body.

CT urogram – obtains pictures of your urinary tract.

Cystoscopy – a doctor looks into the bladder with a cystoscope (a thin telescope), which is passed into the bladder via the urethra to see any areas on the lining of the bladder which look abnormal. It is also possible during a cystoscopy to biopsy suspicious areas, whereby a small sample of tissue is removed from a part of the body and examined under a microscope to look for abnormal cells. It is also possible to remove a superficial tumour with instruments which can be passed down a side-channel of the cystoscope.

What is the the treatment of superficial bladder cancer ?

Superficial bladder tumours

Transurethral Resection (TUR) – removal of the tumour via a cystoscopy, when thin instruments are passed down a side-channel of the cystoscope.

Immediate chemotherapy – following a TUR, it is usual to have one dose of chemotherapy in the bladder (intravesical chemotherapy). It is usually done within 24 hours of having a TUR and involves inserting chemotherapy medicines which kill cancer cells, or prevent them multiplying. This has the aim of killing any cancer cells that have been left behind following the TUR.

Further intravesical BCG therapy – depending on the stage and type of the cancer, further intravesical chemotherapy may be advised. This may be done every weeks for several months, to be as certain as possible that all cancer cells are killed, thereby reducing the risk the tumour recurring.

Repeat checks – after the removal of a superficial tumour, you will need a cystoscopy every so often. This way and possible recurrence of the tumour is caught early. Usually a repeat check is advised every 3-4 months. This may less frequent the longer the bladder remains tumour-free.



What is the treatment of muscle invasive bladder cancer ?

The treatment advised depends on various factors such as the stage of the cancer, how large the cancer is, if it has spread, and your general health.

Some muscle invasive bladder cancers can be cured. Particularly if they are caught in early stages of the disease. However, treatment may aim to control the cancer if a cure is not realistic. With treatment it is often possible to limit the growth or spread of the cancer so that it progresses less rapidly, keeping the patient free of symptoms for some time. If a cure is not possible, treatment may aim to ease symptoms such as pain by reducing the size of the cancer.

Surgery – the most common treatment for muscle invasive tumours is an operation to remove the bladder. This is a major operation and you will need an alternative way of passing urine if you have your bladder removed. One alternative way is a ileostomy, which is where a surgeon uses a technique to arrange a system for urine to drain into a bag which you wear on the outside of your abdomen. Another alternative operation may be possible with the surgeon creating an artificial type of bladder from a part of the patient's bowel.

Radiotherapy – a treatment which uses high-energy beams of radiation, focused on cancerous tissue, killing cancer cells or stopping them from multiplying. This might be used as an alternative to surgery.

Chemotherapy – using anti-cancer medicines to kill cancer cells or to stop them from multiplying. A course of chemotherapy (neoadjuvant chemotherapy) may be advised before surgery or radiotherapy, which may improve the prognosis (outlook), and in some cases a course of chemotherapy is given after surgery.

What is the overall outlook for bladder cancer ?

Superficial bladder tumours – there is a good chance of a cure with treatment and routine checks every few months following treatment will offer early detection of recurrences.

Muscle-invasive bladder tumours – cure is less likely, but the tumour is diagnosed, the better the chance of a cure. Even if a cure is not possible, treatment can often slow down the progression of the cancer.