The Treatment of Prostate cancer

This leaflet will be of interest in particular to those men who have been diagnosed as having Cancer of the Prostate.

Diagnosis of Prostate Cancer

Prostate Cancer is usually diagnosed in one of two ways:

- Following a prostate biopsy, performed either because the prostate gland felt abnormal or the PSA test was abnormal
- Following microscopic examination of the prostate tissue removed at a prostatectomy (TURP)

I have been told that I have prostate cancer – what happens now?

Further investigations

A ***bone scan*** is a special scan using nuclear medicine techniques. Prostate Cancer that has spread has a tendency to settle in some of the bones of the skeleton and a bone scan will usually detect this. Detecting the presence of such metastases (as they are known) may affect the treatment your doctor would like to give you. Bone scan is not required in every patient and Mr Puri will discuss this with you.

MRI scan To confirm that the cancer is localised to the prostate gland a MRI scan may be required. Not every patient will need a scan as patients with low grade (Gleason 6 or lower), early stage(tumour localised to prostate gland) or PSA below 10 have low risk of spread beyond the prostate and do not require a scan

Treatment of Prostate cancer that appears localised to the prostate gland

The options for treating this kind of cancer are;

- Conservative treatment, also known as “watchful waiting”
- Surgery, in the form of a “radical prostatectomy”
- Radical radiotherapy
- Cryotherapy
- High Energy Focused Ultrasound (HIFU)

Exactly which treatment is given depends to a large extent on your age and general fitness, the exact stage of the tumour, the level of the PSA test, and your wishes after you have been counselled by the doctor.

Conservative therapy

This is based on the fact that many men will die of other causes not related to the diagnosis of their prostate cancer. This form of treatment is obviously more appropriate in older men older whose life expectancy is generally less than 10 years from the time of diagnosis. This does **not** mean that men over 70 years old are automatically excluded from having surgical treatments.

Conservative therapy does **not** mean **no** treatment; rather it means that you will undergo regular check ups with the consultant with a rectal examination and a PSA check.

Radical Prostatectomy

Radical Prostatectomy is a major operation to remove the whole of the prostate gland. The operation is performed by **keyhole surgery** (Laparoscopic Radical Prostatectomy) or through an abdominal wound **(Open Radical Prostatectomy).** The length of stay is variable but most men will expect to stay on the ward for about 2-3 days after the operation.

Advantages of Surgery

- The true extent (stage) and aggressiveness (grade) of prostate cancer can be determined.
- If the cancer is confined to the prostate and completely removed the operation should be curative
- PSA value should decrease to <0.1 six weeks after the operation
- This operation also relieves the obstruction caused by enlargement of the prostate gland and relieves symptoms as poor flow and getting up at night to pass water.
- If cancer recurs PSA rise will detect this 4-5 years before symptoms so the radiotherapy can be given.

Complications of Radical Prostatectomy

Impotence - following the operation there is a risk of impotence (failure to get adequate erections). Potency (erection) rates differ amongst surgeons. Good potency rates would be 50% of patients, at 12 months after surgery.

Incontinence - The return to normal control occurs in three phases, and you should try to be patient with the speed of your recovery.

- The first phase is that you will be dry when you are lying down at night.
- In phase two you will be dry when walking around.
- Finally in phase three you will be dry when you get up from a sitting position, cough or sneeze.

The majority of men find that they experience some urinary leakage when they cough, sneeze or change posture suddenly. This is called stress incontinence and is controlled by using pads. Good continence results will be 70% pad free by 3 months and 95% pad free by 1 year.

Radical Radiotherapy

The other option is Radical Radiotherapy, which uses high-energy rays that destroys the prostate cancer cells. This may be achieved in two ways

External Beam radiotherapy

This uses a beam of x-rays directed at the prostate to kill the prostate cancer cells. A complete course of treatment takes up to six weeks

Complications of External Beam radiotherapy

Between 40% and 60% of men will have some degree of impotence and up to 3% will develop a degree of incontinence. Side effects on the bowel usually disappear once treatment is complete but some rectal discomfort and bleeding (in up to 30%) can be permanent

Brachytherapy

Uses small radioactive seeds that are inserted into the prostate under general anaesthesia. Their radiation is released slowly to destroy the cancer cells over a period of time.

This is a relatively new treatment and unwanted effects on the bladder may be more sever and long lasting than external beam radiotherapy, but risk of bowel damage is expected to be lower.

Treatment of Prostate Cancer which has spread beyond the boundary of the prostate, but not widespread disease (Locally Advanced)

Surgical treatment is inappropriate for this disease - the ultimate aim of surgery is to try and remove (and hopefully cure) the cancer.

Cancer which has spread outside the prostate cannot be cured, but may be effectively *controlled*. Possible treatments for this condition include radical radiotherapy or hormonal manipulations to control the prostate cancer

Treatment of Disease which has spread to involve other parts of the body (Metastatic disease)

Both surgery and radiotherapy are inappropriate for this condition and most treatments use a variety of hormonal therapies to keep the prostate cancer under control

Hormonal Therapy - How does it work?

Prostate Cancer relies on the presence of the male hormone, Testosterone, for growth. In actual fact Testosterone is converted to a more active form known as Di-hydro-testosterone (DHT).

Hormonal therapies all work by reducing the level of Testosterone in the body to very low limits. There are three ways this can be achieved.

Ways by which Testosterone can be reduced

- Tablets
- Injections
- An operation to remove the inner part of the testicles

The advantages and disadvantages are compared below. After reading this you may find it useful to discuss the options further with your doctor when you next visit the clinic.

Method	Advantages	Disadvantages
Tablets	Non-invasive (IE no injections or operations required)	• Tablets must be taken up to three times a day for life • Some side effects are common (e.g. tiredness, lethargy, diarrhoea)
Injections	Only needs to be given once a month, or sometimes once every three months	• Sometimes painful to receive the injection • Can develop hot flushes (can be treated)
Operation	Once operation is performed it is likely that no other treatment will be required in the short term - i.e. no tablets or injections	• Requires an admission to hospital for 1-2 days and a general anaesthetic • Possible psychological problems of reduced testicle size after operation • Hot flushes may develop (this is treatable)

The Consultant will carefully follow up, whichever treatment is recommended to you

Any questions?

If you have any questions, jot them down here and ask the nursing or medical staff for answers.

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