

EFFECTIVENESS

Brachytherapy has been shown to be just as effective at curing low risk prostate cancer as other radical treatments such as radical surgery (prostatectomy) or external beam radiotherapy. Data presented by the American Society of Clinical Oncology showed that disease-free survival rates were between 81% and 93% after 13 years in low risk early prostate cancer. It may combine as a 'boost' to external beam radiotherapy in high risk cases.

BENEFITS

The procedure is done as a day case and recovery usually takes only a few days. Most men return to work and normal activities within two days. It has less risks associated with it than radical surgery or external beam radiotherapy. Urinary incontinence is rare but about 20% of patients may have increased urgency and frequency in the first 3 months. 80% of patients with normal potency will retain their potency after treatment.

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Special interests in prostate cancer diagnosis and treatment, PSA testing, prostate brachytherapy, laser prostate surgery, template prostate biopsies, erectile dysfunction and infertility.



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HOW TO FIND US:

London Bridge Hospital is situated on the South Bank of the Thames. We are next to London Bridge mainline and underground stations with easy access to the City. Please note: no right hand turn from Borough High Street into Duke Street Hill.



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DYNAMIC PROSTATE BRACHYTHETAPY



Prostate cancer is now the most common cancer in men.

More than 34,000 men are diagnosed in the UK each year.

However, as is the case with many cancers, if prostate cancer is detected early enough the chances of removing or killing the cancer cells completely are good. If the cancer is localised, which means that it has not spread outside the prostate gland, then the number of available treatment options increases.

One of these treatment options is called Dynamic Prostate Brachytherapy.

BACKGROUND

Prostate Brachytherapy is one of three types of radical therapies that are commonly used to treat localised prostate cancer.

Prostate Brachytherapy is a popular alternative to surgery and radiotherapy for patients with early, localised prostate cancer. As with surgery, radical radiotherapy is recommended for men with a good life expectancy. It is an alternative for men whose cancer can be treated radically, but who are not fit enough for radical surgery and choose not to have an operation. It is a less invasive treatment for patients with early prostate cancer and also proven to be very effective in treating prostate cancer.

Our service uses the most modern treatment approach, in which both the planning stage of the procedure and the procedure itself are done in one visit, rather than the traditional two-stage approach. Dynamic dose feedback with intraoperative dosimetry computer software ensures that the maximum dose can be delivered to the prostate safely whilst minimising collateral damage.

PROCEDURE

The procedure is carried out in two stages, under general anaesthetic, during one visit. Stage one is the volume study during which a gel is inserted into the patient's urethra and the prostate volume is outlined on the ultrasound images after the needles have been inserted. A three-dimensional model is then constructed by the brachytherapy planning computer and a dose plan is produced. This plan will be unique to each patient and will determine the position and number of seeds needed.

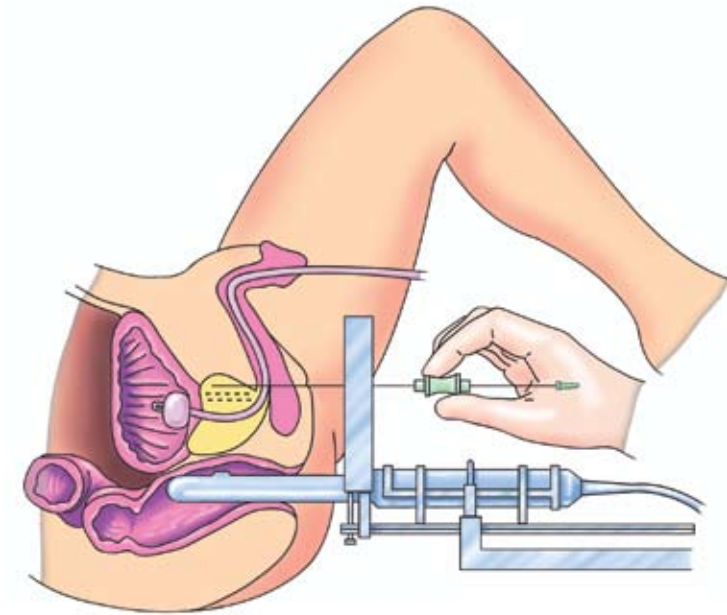


Figure 1. Inserting of radioactive seeds.

Stage two involves the implanting of the seeds through needles inserted directly into the prostate through the skin between the scrotum and rectum. State-of-the-art computer planning software is used to analyse the implant for correct seed placement to ensure the radiation dose cloud is exactly shaped to the prostate. The radiation is targeted directly at the prostate gland which minimises the effects on the surrounding healthy tissues.

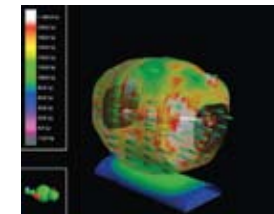


Figure 2. Diagram of the prostatic dose cloud.

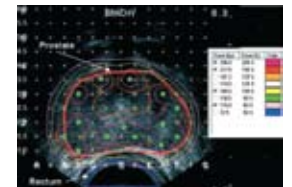


Figure 3. Dose planning image.