Robotic assisted laparoscopic prostatectomy

Keyhole (or minimal access) surgery using robotic assistance is used to remove the prostate, seminal vesicles (tube-like glands which make semen) and occasionally lymph nodes. This involves performing operations that were traditionally done by an “open” method (i.e. via an incision or cut on your abdomen) but using “keyhole” sized incisions instead. More and more surgical procedures are now being performed by this method. The method of doing a prostatectomy by means of keyhole surgery at TSGH is with robotic assistance (the da Vinci® machine). In recent years, it has been shown to be safe and effective for many operations and it is now the method of choice in many cancer centres throughout the country.

Robotic assisted laparoscopic prostatectomy is performed under general anaesthetic. It involves the use of a number of “ports” which allow access to the diseased organ. The length of time taken to perform the surgery varies between procedures and patients but recovery is usually quicker than in open surgery. Your fitness for such an operation will be assessed and discussed by your Urologist. You should be aware that there is a small chance (about 0.5 per cent or one in 200) that your procedure may need to be converted to an open operation. In other words once the operation begins the surgeon may find that it is not possible to proceed using the robot and so may decide that he needs to make an incision in your abdomen to successfully remove the prostate. For this reason, if you are insistent that you would not agree to an open operation under any circumstances, we would be unable to proceed with the robotic operation. Be assured that the decision about which operation to have is one that you will not make alone and no one will mind which operation you have.

A prostatectomy (removal of the prostate gland) is an operation carried out to remove the prostate gland in patients who have prostate cancer. The prostate, seminal vesicles and some surrounding tissues are removed to provide the best possible chance of removing all the cancer.

You will have had a discussion with your Urologist and oncology nurse about prostate cancer. Please remember that early prostate cancer can be effectively treated. Most men with early prostate cancer will remain alive and healthy for many years to come. The main advantage of a radical prostatectomy is to remove the cancer and the prostate completely.

What are the benefits?

Robotic surgery has been shown to have the following advantages:

 Small scars: six small incisions in the tummy as opposed to one large one.

 Less pain: usually managed by oral tablets and rarely lasting more than three days.

 Less blood loss: this reduces the risk of needing a blood transfusion

 Short length of stay

 Enhanced surgical 3-D vision and dexterity of instruments gives the surgeons high levels of control within the abdomen minimising risk and contributing to cancer clearance.  Rapid return to normal: most patients can return to work after four to six weeks

Risks:

Most surgical procedures have a potential for side effects these are listed below:

Common (greater than one in 10)

 Temporary insertion of a bladder catheter (all patients will have a catheter for a minimum of seven days after the operation)

 Temporary difficulties with urinary control

 Impairment of erections even if the nerves can be preserved (20 to 50 per cent of men with good preoperative sexual function)

 Inability to ejaculate or father children because the structures which produce seminal fluid have been removed (occurs in 100 per cent of patients)

  Temporary shoulder tip pain or abdominal bloating

Occasional (between one in 10 and one in 50)

 Scarring at the bladder exit resulting in weakening of the urinary stream and requiring further surgery (2 to 5 per cent)

 Severe urinary incontinence (temporary or permanent) requiring pads or further surgery (2 to 5 per cent)

 Blood loss requiring transfusion or repeat surgery or conversion to open surgery

 Further cancer treatment at a later date, such as radiotherapy or hormone treatment

 Lymph collection in the pelvis if lymph node sampling is performed

 Some degree of constipation can occur; we will give you medication for this but, If you have a history of piles, you need to be especially careful to avoid constipation

 Apparent shortening of the penis; this is due to removal of the prostate gland causing upward displacement of the urethra to allow it to be re-joined to the bladder neck. The reduction in blood flow to penis also effects length.

 Discovery that cancer cells have already spread outside the prostate, which may lead to consideration of further treatment.

 Development of a hernia in the groin area at least six months after the operation

 Scrotal swelling, inflammation or bruising (short term) Rare (less than one in 50)

 Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)

 Pain, infection or hernia at incision sites

 Rectal injury requiring a temporary colostomy

 Hospital-acquired infection

 Conversion to open surgery or standard laparoscopic surgery

 Compartment syndrome – swelling of tissues in leg requiring urgent decompression surgery

 Recognised injury to other organs or blood vessels requiring conversion to open surgery

 Colonisation with MRSA (0.9 per cent, one in 110)

 Clostridium difficile bowel infection (0.2 per cent; one in 500)

 MRSA bloodstream infection (0.08 per cent; 1 in 1,250)