Radical Prostatectomy (Total Removal of the Prostate Gland)

根治性前列腺切除術（完全切除前列腺）

Introduction

Radical prostatectomy is one of the curative treatment options for early stage prostate cancer. The procedure could be done with open abdominal surgery, laparoscopically (with or without robotic assistance), or through a perineal operation.

The aim of the surgery is to remove the entire prostate gland with the cancerous part. Sometimes the regional lymph nodes are removed in the same operation.

The Procedure

Despite the different possible approaches for the operation, the procedure within the body is very similar.

During the operation, the regional lymph nodes may be removed and sent for histological exam if indicated. The surgery may be stopped if the lymph nodes are found to harbor cancer cells and alternative treatment may be offered instead of proceeding with this curative surgery. Then the entire prostate gland together with the seminal vesicals is removed. The bladder is sutured back to the residual part of urethra. By the end of the surgery, it is usual for surgeons to put in a urethral catheter to drain the bladder and a surgical drain around the site of surgical resection.

Open abdominal surgery involves using a lower abdominal wound or a perineal wound for the procedure depicted above. In laparoscopic and robotic-assisted laparoscopic approach, 5-6 small incisions are made over the umbilicus and the lower abdomen to allow the entry of the laparoscope and other instruments.

Open Surgery or Laparoscopic Surgery?

Both approaches can achieve comparable and satisfactory cancer control. The complication rate and recovery are also similar. The blood loss is usually less and the recovery is sometimes quicker. However, not every patient is suitable for the laparoscopic approach. Patients should discuss with their surgeons for the most suitable surgical approach.

Risk and Complication

Peri-operative

1. Anaesthetic complications and complications caused by pre-existing diseases
2. Systemic life threatening complication including myocardial infarction, cerebral vascular accident, deep vein thrombosis and pulmonary embolism
3. Bleeding requiring massive transfusion
4. Injury to adjacent organs including ureter, rectum, bowel, and pelvic nerves and vessels
5. Anastomotic leakage or urinary leakage with or without intra-abdominal abscess and sepsis, requiring further surgical interventions including colostomy
6. Bowel obstruction or ileus
7. Urinary tract infection, chest infection, wound infection causing life threatening septicemia
8. For laparoscopic surgery (with or without robot assistance), special risks includes: Fatal gas embolism and hypercarbia (<1%); Postoperative crepitus and pneumothorax; conversion to open surgery.

Post-operative

1. Various degree of urinary incontinence (~5-15% after one year)
2. Anastomotic stricture and urethral stricture (<10%)
3. Positive resection margin
4. Erectile dysfunction
5. Loss of ejaculation and infertility (normal consequence)
6. Fecal incontinence in perineal approach
7. Wound dehiscence and hernia formation
8. Further intervention including operation for management of complications, positive resection margin and tumor recurrence
9. Mortality related to tumor surgery or pre-existing diseases (0.5-2%)

Before the Procedure

Blood tests and other check up would be done before the surgery to make sure the patient's body condition is fit for general anesthesia and the major surgery. Sometimes, cleaning up the bowel is necessary and the patient would be required to drink laxative fluid or would be given suppositories. Generally, the patient is advised not to eat or drink for at least 6 hours before the surgery.

After the Procedure

Sometimes intensive care may be required after this major surgery. The urethral catheter and the surgical drain would be kept for a few days to a few weeks, depending on the condition of recovery.

Follow up

You will be discharged when your doctor deems you fit to return home. Please follow the instructions for wound and urinary care, and attend the follow up appointment given to you upon discharge. If serious events develop after discharge, you should seek urgent medical advice at the nearest Accident and Emergency Department.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.