

## **Laparoscopic Urological Surgery (泌尿外科腹腔鏡手術)**

### **Introduction**

Laparoscopy is one approach to surgical intervention. The procedure include creation of working space inside the body by gas (carbon dioxide) insufflation, insertion of laparoscope and dissection instruments through small wounds on the body wall to perform surgical treatment inside the body under video monitoring. Alternative approach is conventional open surgery.

### **The procedure**

General anesthesia with muscle relaxation is usually required. The working space can be in front of, within or behind the peritoneal cavity. Access to the working space can be achieved by needle puncture or through a small incision. Space outside the peritoneum has to be developed with blunt dissection. The working space is distended with gas insufflation. Small channels (ports) are inserted through the skin into this working space. A lens (laparoscope) and surgical instruments are passed through the ports. Surgical operations are performed under video monitoring through the laparoscope. Any specimen can be retrieved through a small incision in the body wall. All instruments and ports are removed with wounds closed at the end of the procedure. Drains and catheters may be inserted as required.

### **Risk and complications**

In addition to complications associated with standard open operation and the specific risks associated with individual procedures to be performed, laparoscopic surgery has additional potential risks.

### **Peri-operative complications due to laparoscopic surgery**

1. Vascular or visceral injury by trocar insertion (<1%)
2. Fatal gas embolism and hypercarbia (<1%)
3. Postoperative subcutaneous crepitus (surgical emphysema) and pneumothorax.
4. Systemic life threatening complications that occur in conventional open surgery.
5. Possible injury to vascular and visceral organs including liver, spleen, rectum, urinary bladder, bowel or blood vessels.
6. Wound hematoma, wound infection and hernia formation.
7. Possibility of tumour metastasis at port site.
8. Further intervention including conversion to open surgery for poor progress or for management of complications.
9. Mortality related to laparoscopic surgery or pre-existing diseases.

This list is not exhaustive and rare complications cannot be listed.

### **Before the procedure**

Preparation appropriate to specific procedures will be prescribed, such as antibiotic prophylaxis, bowel preparation or cross match. Pulmonary and cardiac condition need to be optimized before operation to avoid adverse effect from carbon dioxide

absorption. There should not be uncorrected coagulopathy or local infection. Patient should realize that gross obesity, abnormal body build, prior abdominal and pelvic surgery can all contribute to greater technical difficulty of the procedure. Laparoscopy can be performed in early pregnancy but the acidosis and hypercarbia associated with the procedure can have adverse effect on the fetus. Prophylaxis against deep vein thrombosis may be indicated in long procedures, pelvic operations or patients at risk.

### **After the procedure**

Postoperative care appropriate to specific procedures will be prescribed, such as need for fasting, monitoring, analgesics and sedation, catheterization, drainage, antibiotics cover, blood transfusion and fluid replacement. There may be slight bleeding at port sites. Surgical emphysema will subside spontaneously. Bruising around port sites will resolve. The small incision wound will take several days to one week to heal. Patient will be given instruction for removal of skin sutures if required.

### **Follow up**

Patient will be discharged when considered appropriate for specific operations. They should follow instruction for follow up given upon their discharge. If serious events develop after discharge, patient should seek medical advice at the nearest Accident and Emergency Department.

### **Remarks**

This is general information only and the list of events that can occur is not exhaustive. Other unforeseen situations may occasionally occur. In each individual patient the actual risk may be different. Please discuss any issue further with your doctor if deemed necessary.