聖保祿醫院
St. Paul's Hospital

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Procedure Information – Laparoscopic Colorectal Resection

Visit No.:	Dept.:
Name:	Sex/Age:
Doc. No.:	Adm. Date:
Attn. Dr.:	
Patient No.: PN	*Please fill in / affix patient's label*

Introduction

- Intestine consists of small and large intestine (including ascending, transverse, descending and sigmoid colon and rectum). Large intestine is mainly responsible for water absorption and formation of solid stool which is stored in rectum and then passed out in anus.
- Laparoscopic colorectal resection is a major operation in which part or whole of the colon or rectum is removed with the use of laparoscopic technique. It is a minimally invasive procedure, which smaller incisions are made, with less postoperative pain and associated complications, and earlier return of bowel function.

The Procedure

1. The operation is performed under general anaesthesia.
2. Small incisions are made over the abdomen for insertion of laparoscope and instruments.
3. Carbon dioxide is insufflated into the abdominal cavity.
4. Surgeon localizes the tumor and excises the diseased segment of colon using laparoscopic instruments.
5. The remaining ends of bowel are usually rejoined when it is appropriate. Otherwise, a stoma may be performed as part of the operation, either temporarily or definitively.
6. Depending on the nature of the disease and individual anatomy, it may be impossible or unsafe to proceed further with laparoscopic technique ; the operation will then have to be converted to conventional open surgery.

Risks and complications

- Procedure related complications (item 1-3: may require further major operation and are associated with an overall mortality of up to 5%)
  1. Complications related to bowel preparation (renal failure/ electrolyte disturbance)
  2. Surgical emphysema and incisional hernia.
  3. Damage to spleen in case of splenic flexure mobilization.
  4. Injuries to the urinary bladder and ureter.
  5. Anastomotic bleeding, leakage or disruption (3-10%), leading to reoperation, stoma and anastomotic stricture.
  6. Intra-abdominal bleeding and collection.
  7. Bladder dysfunction - 20% ; temporary in most cases (in rectal cancer surgery), urinary tract infection.
  8. Fatal air-embolism
  9. Damage by trocars: urinary bladder, gastrointestinal tract or vessels
  10. Transient faecal incontinence, intestinal obstruction (prolonged ileus/ adhesive obstruction)
  11. Sexual dysfunction, importance (30-40%) (in rectal cancer surgery)
  12. Wound complications: infection, scar problems (hypertrophic scar, Keloid)
  13. Port site recurrence (local or systemic or both)
  14. Stoma complication: Necrosis, stenosis, bleeding, retraction, prolapse, parastomal hernia, high output and skin irritation.

Preoperative preparation

1. Your doctor will explain to you the reason, procedure and possible complications. You will need to sign a consent form.
2. Pre-operative work up: physical examination, blood tests, chest x ray and electrocardiogram (ECG)
3. Bowel preparation:
   a. Low residue diet 3 days before operation, avoiding high roughage food such as vegetables, fruits and cereals.
   b. Fluid/ congee diet 2 days before operation.
   c. Bowel cleansing agent may be prescribed on the day before operation; clear fluid (non-dairy products) is allowed.
4. Pre-operative anesthetic assessment.
5. Shaving of appropriate operative site and bathing.

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6. Keep fast for 6 hours before operation to avoid risk of aspiration.
7. Urinary catherization may be required, otherwise empty bladder before surgery.
8. May need pre-medications and intravenous drip.
9. Antibiotics prophylaxis or treatment may be required.

After the procedure

A. Usually after operation

1. Mild discomfort or pain over abdomen, shoulder or neck is common because of gas insufflations. Inform nurses or doctor if pain is severe.
2. Nausea and vomiting are common; inform nurses if severe symptoms occur.
3. Pain relief is usually by patient-controlled analgesia or epidural analgesia.

B. Diet

1. Diet is restricted in the postoperative period; it is gradually resumed (fluid, soft and normal diet) when bowel function returns.
2. Bowel opening is loose and frequent in early period, but condition will improve with time.

C. Wound care

1. Wound is covered by sterile dressing.
2. Keep wound dressing dry; staples or clips will be removed on post operation day 7-14.
3. Avoid kinking or knotting of surgical tubes such as naso-gastric tube, urinary catheters and intravenous catheters.
4. Abdominal drain may be placed for removal of dirty fluid, and it is usually removed on day 2-5 depending on the content and volume of fluid drained.

D. Activity

1. Early ambulation and deep breathing exercise can help reduce the chance of chest infection or pulmonary embolism.

After discharge

A. Diet

1. There is no need to restrict diet; drink more water and take a high fibre diet to allow easy bowel opening.

B. Activity

1. Can resume normal daily activity within 1-2 weeks (according to individual situation).
2. Avoid lifting heavy objects, bending or extending the body excessively in the first 4 weeks.

C. Wound care

1. Mild wound pain is common.
2. Taking shower is allowed, but remember to keep dressing dry.

D. Follow up

1. Remove stitches or clips in the outpatient clinic.
2. Follow up as scheduled for pathology result and assessment.

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. Should a complication occur, another life-saving procedure or treatment may be required immediately. For further information please contact your doctor.

Reference

Hospital Authority – Smart Patient Website

I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. _____. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

Patient / Relative Name	Signature	Relationship (if any)	Date