

Introduction

Surgical resection of the stomach is most commonly performed as treatment for malignancy. It is also sometimes indicated for benign pathology in the stomach such as gastrointestinal stromal tumor. An adequate surgical resection remains the only effective treatment which offers a chance of cure or long term survival in cancer of the stomach. Furthermore, a palliative resection whenever feasible is also more effective in relieving symptoms such as obstruction, bleeding and perforation.

The principle underlying a potentially curative resection of gastric cancer includes:

1. Adequate tumour free margins.
2. Partial, subtotal or total gastrectomy can be performed depending on the location of the primary tumor.
3. Extensive local-regional lymph nodes clearance around the tumor and its vascular supply.
4. Safe and well functioning reconstruction.

The Operation / Procedure

Surgical approach may include conventional open or minimally invasive techniques:

1. *Conventional open gastrectomy* is suitable for all operable gastric cancers and generally involves a midline incision in the upper abdomen and follows all the surgical principle listed below.
2. *Minimally invasive gastrectomy* is suitable for most operable gastric cancers and generally involves five 1 to 4 cm incisions in the upper abdomen and the procedure is carried out laparoscopically. This approach requires pneumoperitoneum, which is gas insufflated abdomen. It is therefore not suitable for patients whom have poor physiological tolerance to an insufflated abdomen such as severe respiratory and kidney diseases. However, It is currently accepted that the minimally invasive approach is suitable for early stage gastric cancers and this approach may hasten patient recovery due to less access trauma compared with conventional open approach.

Preoperative Preparation

1. Admit 1 day before or on same day of this “elective” operation.
2. Anaesthetic assessment before operation. Inform your doctors about drug allergy, your regular medications or other medical conditions.
3. Keep fast for 6 to 8 hours before operation.
4. Empty bladder and change to operation clothes before transfer to operating room.
5. Pre-medication and intravenous line may be required
6. Antibiotic prophylaxis may be required.
7. Nasogastric tube and Foley’s catheters are inserted with the purpose to empty the stomach and bladder for the surgery and post-operative monitoring.
8. One to two tubal drains within the abdominal cavity to avoid intra-abdominal collection following extensive dissection for lymphatic clearance.
9. Pain relief is usually well managed with the epidural anesthesia or patient-control-anesthesia.
10. Early ambulation, vigorous breathing and coughing exercise are much encouraged. These help to reduce the chance of chest infection, urinary retention as well as venous thrombosis.

Postoperative Instruction**General**

1. Mild throat discomfort or pain because of intubation.
2. Mild discomfort or pain over the operation site. Inform nurse or doctor if pain severe.
3. Nausea or vomiting are common; inform nurses if symptoms severe.
4. Inform nurses if more analgesics are required.
5. Patients undergoing total resection of stomach are prone to anaemia due to impaired vitamin B12 absorption. Hence, supplement in form of regular intra-muscular injection is required.
6. According to individual's tolerance, some form of dietary adjustment is likely especially in the early post-operative period.
7. Post-operative adjuvant treatment, such as chemotherapy and radiotherapy, may be considered in selected cases.

Diet

Patient usually will need to be nil by mouth for 24 - 48 hours post-operatively. Afterwards, would be progressively allowed to take fluid diet, soft diet and solid food according to patient's condition.

Common Risks and Complications (not all possible complications are listed)**Anesthesia related complications**

1. Cardiovascular: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
2. Respiratory: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.
3. Allergic reaction and shock.

Procedure related complications

Surgical risks associated with gastrectomy occur in 1-5% and include:

1. Intra-operative / post-operative bleeding in view of the extensive field of dissection.
2. Anastomotic leakage.
3. Intra-abdominal collection and abscess.
4. Fistulation – e.g. pancreatic fistula.
5. Chest complications such infection and pneumonia, pleural fluid collection.
6. Late sequelae – bowel disturbance, dumping, mal-nutrition, anaemia etc.
7. Mortality from gastrectomy occurs in less than 1% of cases.

Things to take note on discharge

1. Contact your doctor or a nearby Accident & Emergency Department if you find increasing pain or redness around the wound and discharge from the wound.
2. Take analgesics prescribed by your doctor if required.
3. Resume daily activity gradually.

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. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

Reference

Hospital Authority: "Gastrectomy" (2020)

Smart Patient: http://www.ekg.org.hk/pilic/public/surgery_pilic/surgery_gastrectomy_0201_eng.pdf. (06-07-2023)