

## Gastrectomy 胃切除手術

### 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 or ulcers. 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 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 or six 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. This approach may induces less post-operative pain, shortens the hospital stay and hastens patient recovery due to less access trauma compared with conventional open approach. However surgery may be converted from minimal invasive approach to conventional open approach if laparoscopic dissection is considered to be too difficult or unsafe.

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

1. Adequate tumour free margins
2. A Partial, subtotal or total gastrectomy can be performed depending on the location of the primary tumor
3. Resection of part of the esophagus may be performed for tumor around esophagogastric junction
4. Extensive loco-regional lymph nodes clearance around the tumor and its vascular supply
5. Safe and well functioning reconstruction

## Anesthesia

Gastrectomy is performed under general anesthesia. Very often, epidural anesthesia or patient-control-anesthesia is added to reduce post-operative pain.

## Risks

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 complication -- Anastomotic stricture / anastomotic ulcer / internal herniation
7. Late sequelae – bowel disturbance, dumping, mal-nutrition, anaemia etc.
8. Mortality from gastrectomy occurs in less than 1% of cases

## Peri-operative Care

1. Nasogastric tube may be inserted with the purpose to empty the stomach for the surgery and post-operative monitoring.
2. Foley's catheters are inserted with the purpose to empty the ~~stomach~~ and bladder for the surgery and post-operative monitoring.
3. One to two tubal drains within the abdominal cavity to avoid intra-abdominal collection following extensive dissection for lymphatic clearance.
4. Pain relief is usually well managed with the epidural anesthesia or patient-control-anesthesia.
5. 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.

## Aftercare

1. 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.

2. According to individual's tolerance, some form of dietary adjustment is likely especially in the early post-operative period.
3. Post-operative adjuvant treatment, such as chemotherapy and radiotherapy, may be considered in selected cases.

### **Follow up**

1. See the doctor as scheduled.
2. In case there are any serious conditions such as severe wound pain, passage of large amount of blood, fever, etc, you should seek medical attention at the Accident and Emergency Department of a nearby hospital.

### **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.