

## Endovascular Repair for Abdominal Aortic Aneurysm

### 腹主動脈瘤腔內修復術

#### Introduction

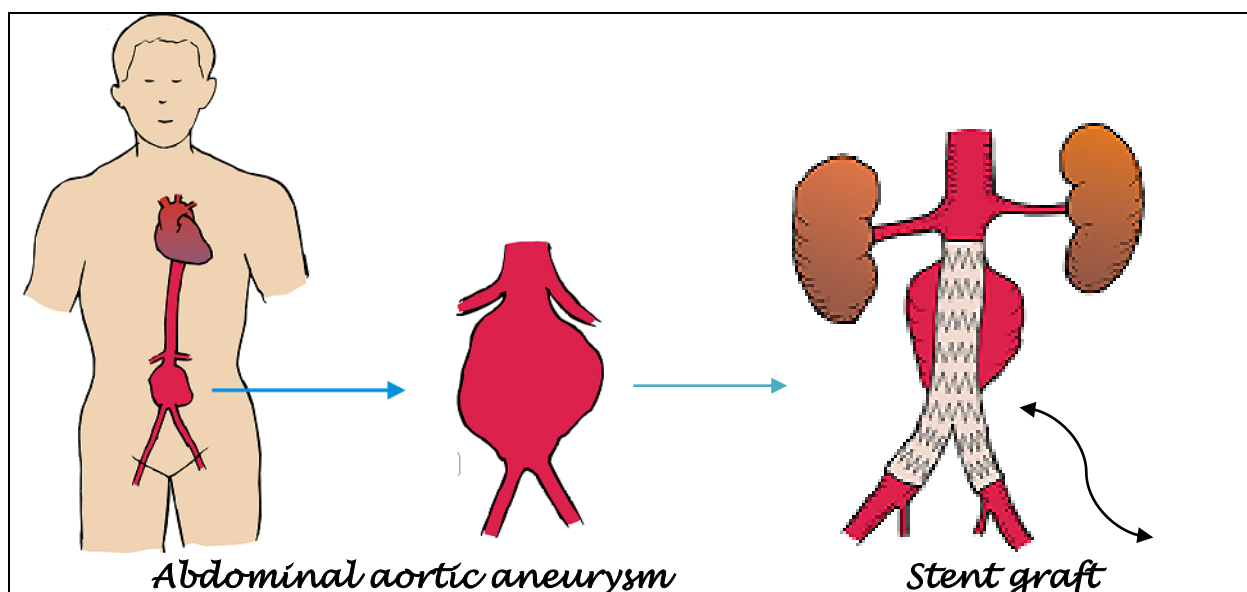
Aneurysms are bulges that occur in weakened regions of the wall of arterial blood vessels. The most common site of aneurysms occurs in the abdominal aorta, the main artery that carries oxygen-rich blood from the heart to the entire body. A weakened aorta enlarges with risk of bursting. A ruptured aneurysm can cause severe internal bleeding, which can lead to shock or even death. Some people may not experience any symptom, although some may note a pulsatile mass in the abdomen.

In aneurysm with diameter more than 5cm / enlarging by more than 0.5cm in less than 6 months / becomes symptomatic, surgical repair is indicated to prevent rupture.

#### Procedure

The procedure is usually carried out under spinal or general anaesthesia. Sometimes it may be performed under local anaesthesia. An incision is made at the groin. A fabricated metallic graft (endovascular stent graft) is inserted through the blood vessel and positioned to exclude the aneurysm sac from circulation, under fluoroscopic guidance.

Endovascular repair is expected to have decreased cardiovascular and pulmonary complications, as laparotomy is not required. It requires 3 to 5 days of hospitalization. Postoperatively, regular imaging surveillance is required to ensure that the graft continues to function properly.



## Risks & complications

- A. Perioperative mortality rate is about 2 to 3%
- B. Systemic complications
  - 1. Cardiovascular: myocardial infarction, arrhythmia, congestive heart failure
  - 2. Pulmonary: pneumonia, respiratory failure
  - 3. Renal failure: contrast, stent graft covering the renal orifices
  - 4. Allergy / anaphylactic shock
  - 5. Others: cerebrovascular accident, deep vein thrombosis, pulmonary embolism
- C. Local complications
  - 1. Stent graft: infection, thrombosis
  - 2. Distal limb ischaemia
  - 3. Injury to the femoral arteries: haemorrhage, pseudoaneurysm
  - 4. Endoleak (secondary intervention may be needed in the future)
  - 5. End-organ ischaemia: colon, small bowel, spinal cord
  - 6. Wound infection

## Before the procedure

- 1. You will be admitted one day before the procedure for preliminary tests including electrocardiogram, chest X-ray and blood tests.
- 2. The vascular surgeon will explain to you and your relatives about the procedure and its risks. You have to sign an informed consent.
- 3. Shaving of groin, shower / hair washing one day before the procedure.
- 4. Fasting of 6 hours prior to the procedure.
- 5. You have to wear a clean surgical gown, a cap and stockings immediately before the procedure.
- 6. Intravenous infusion, premedication of antibiotic may be required.

## After the procedure

### General information

- 1. After general anaesthesia, you may feel tired, dizzy or weak. These will subside gradually.
- 2. Deep breathing and coughing exercise are helpful to prevent pneumonia.
- 3. We will monitor your blood pressure/pulse and observe your wound conditions.

### Activities

- 1. You should remain in bed for 12 hours. Some gentle limb exercises and turning are allowed.
- 2. You may resume usual activities gradually under the instruction of the health care professional 12 hours after the procedure.
- 3. Avoid strenuous activities/heavy weight lifting within 2 to 3 weeks after the procedure.
- 4. Recovery depends on individual condition and progress.

### Wound care

1. Keep wound dressing clean and dry. 1 to 2 drains may be inserted.
2. Take the prescribed analgesic as needed.
3. Avoid pulling or kinking of the drains during activities. The drains will be removed 1 to 2 days after procedure.
4. Stitches will usually be removed 7 to 10 days after the procedure.

### Diet

1. Resumption of normal diet depends on the individual situation/progress.
2. In general, you can take a well-balanced diet after the procedure unless you are on any special diet such as a diabetic or renal diet.

### Care after discharge

- A. Control the risk factors of atherosclerosis:
  1. Quit smoking
  2. Go on a low-fat, low-salt, low-sugar and high-fibre diet
  3. Take medications as prescribed to control hypertension / diabetes / high cholesterol level
  4. Exercise regularly
- B. Follow up regularly with X-Ray and computed tomography / ultrasound imaging as arranged.

### 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.