

Version 3.0

Coordinating Committee in Surgery Effective date: 6 December 2022 Last review date: 22 January 2025 Bypass for Atherosclerotic Occlusive Disease of the Lower Extremities (下肢動脈閉塞-搭橋分流手術)

Document no.: PILIC0173E version3.0

Page 1 of 3

Bypass for Atherosclerotic Occlusive Disease of the Lower Extremities

下肢動脈閉塞-搭橋分流手術

Introduction

Atherosclerosis with build up of atherosclerotic plaques leads to narrowing or occlusion of the lower limb arteries. As a result, the supply of oxygen and nutrients to the lower limb becomes inadequate. It may cause leg pain during walking / exercise that are usually relieved by rest, a condition known as intermittent claudication. In severe cases, rest pain, ulcer or gangrene may develop. In order to re-establish blood flow to the ischaemic part, surgical interventions may be required. Vascular bypass may improve lower limb circulation.

Procedure

Under general or spinal anaesthesia, an incision is made. A conduit—either the patient's own vein or a synthetic graft—is used to bypass the occluded segment to a distal unobstructed arterial segment. Patients usually stay in the hospital for 7 days.

A vein from the patient or a synthetic graft is used to bypass the occluded vessel.



Version 3.0

Coordinating Committee in Surgery Effective date: 6 December 2022 Last review date: 22 January 2025 Bypass for Atherosclerotic Occlusive Disease of the Lower Extremities (下肢動脈閉塞-搭橋分流手術)

Document no.: PILIC0173E version3.0

Page 2 of 3

Risks & complications

A. Perioperative mortality rate is usually less than 5%.

B. Systemic complications

- 1. Cardiovascular: myocardial infarction, arrhythmia, congestive heart failure
- 2. Pulmonary: pneumonia, respiratory failure
- 3. Renal failure
- 4. Allergy / anaphylactic shock
- 5. Others: cerebrovascular accident, deep vein thrombosis, pulmonary embolism

C. Local complications

- 1. Graft: infection, thrombosis
- 2. Haemorrhage, pseudoaneurysm
- 3. Distal limb ischaemia
- 4. Wound infection
- 5. Nerve damage resulting in paraesthesia and neuralgia

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. Marking of superficial veins in the lower limb may be necessary prior to procedure.
- 4. Shaving of groin, shower / hair washing one day before the procedure.
- 5. Fasting of 6 hours prior to the procedure.
- 6. You have to wear a clean surgical gown, a cap and stockings immediately before the procedure.
- 7. Intravenous infusion, premedication of antibiotic may be required.

Post-operative care

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



Coordinating Committee in Surgery Effective date: 6 December 2022 Last review date: 22 January 2025 Bypass for Atherosclerotic Occlusive Disease of the Lower Extremities (下肢動脈閉塞-搭橋分流手術)

Document no.: PILIC0173E version3.0

Page 3 of 3

procedure.

4. Recovery depends on individual condition and progress.

Wound care

Version 3.0

- 1. Keep wound dressing clean and dry. 1 to 2 drains may be placed/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 low-fat, low-salt, low-sugar and high-fibre diet
 - 3. Take medications as prescribed to control hypertension / diabetes / high cholesterol level
- B) Proper foot care, avoiding any injury
- C) Maintain walking exercise regularly
- D) Drug therapy: continue drug therapy as prescribed, e.g. anti-platelet agent like aspirin
- E) Follow-up regularly with 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.