



Procedure Information Sheet

Introduction

Anterior cruciate ligament (ACL) functions as a primary constraint to tibial anterior translation, as well as, a secondary constraint to inversion, eversion and rotational force. Common causes of injury include contact sports, hyperflexion injury, valgus force injury, varus force injury and rotational injury to the knee.

Patient with an ACL deficient knee will have difficulties in sporting activities that require cutting, pivoting and sidestepping.

Arthroscopic ACL reconstructive surgery is a common procedure that will restore the knee stability (not totally) to allow patient with such injury to return to sport.

Indication

- Mark instability - In patients with an ACL deficient knee that affecting his/her walking, stairs walking and sport activities.
- High activities - in young active sportsmen and sportswomen, who want to continue to participate their hobby/career at the same level.

The Operation / Procedure

1. Operation is done under general anesthesia.
2. Arthroscope inserted.
3. In Hong Kong, Patellar bone tendon bone autograft (PBTB) and hamstring autograft are popular methods for this procedure.

Before the Operation / Procedure

1. A written consent is required.
2. Keep fast 6 hours before operation.
3. Inform your doctors about drug allergy, your regular medications or other medical conditions.
4. Optimization of pre-existing medical conditions, e.g. heart disease, hypertension, diabetes mellitus, anaemia, asthma, etc.
5. Blood tests, ECG and X-rays of the appropriate regions before operation.
6. Restore full range of motion with emphasis to prevent extension lag.
7. Psychologically prepare the patient for the postoperative rehabilitation program that will last for 3 to 6 months. Surgery is only part of the treatment.
8. Physiotherapist assessment on muscle strength, baseline measurement, breathing exercise and physical conditioning of all unaffected limbs.

After the Operation / Procedure

1. Diet as tolerated when fully conscious, usually normal diet by 24 hours.
2. Oral, intravenous or intramuscular analgesic as require. Pains usually settle down quickly after 2 to 3 days.
3. Cryotherapy and elevation to control swelling.
4. Drain(s) for removal of fluid might be inserted depending on necessity.
5. Keep wound dressing dry and clean.
6. Most patients can weight bearing with support after a few days. Braces are occasionally prescribe.

Risk and Complication

1. General Risks
 - 1.1 Wound infection, swelling and bleeding.
 - 1.2 Wound breakdown, pain and keloid formation.
 - 1.3 Knee flexion contracture and reduce range of movement.
 - 1.4 Donor site pain, patellofemoral joint pain and numbness.
 - 1.5 Residual laxity.
 - 1.6 Anaesthetic, please talk to your anaesthetist for further questions.

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____



2. Uncommon Risks with Serious Consequences

- 2.1 Re-rupture of reconstructed ACL ligament is not common but can happen.
- 2.2 Fracture of patella, it may require open reduction and internal fixation.
- 2.3 Stiffness, it may require manipulation under anaesthetic.
- 2.4 Major blood vessel or nerve injury, and may lead to loss of limbs.
- 2.5 Flare up of preexisting illness e.g. Hypertension, diabetes.
- 2.6 Wound Infection, it may require arthroscopic lavage, debridement and/or removal of implant.

Alternative Treatment / Investigation

- 1. Conservative treatments. This can include muscle training exercise or bracing. Patient can also adjust their lifestyle to decrease their high demanding sport activities.
- 2. Allograft. No donor site pain and risk of disease transmission.
- 3. Availability problem in Hong Kong. Graft strength decrease with the procurement process.
- 4. Quadriceps tendon. Strong graft. Only one bone end.
- 5. Contralateral side PBTB. Not popular in Hong Kong.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Smart Patient Website of Hospital Authority, Procedure Information Sheet: Anterior Cruciate Ligament Reconstruction (04/2021)

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____

Patient's Signature: _____ Date: _____