



Distal Radius Fracture Fixation

Procedure Information Sheet

Introduction

Distal radius and carpal bone form the wrist joint, and distal radius fracture usually occur in elderly patient after a fall injury. Distal radius fracture in young patient usually happens after a major trauma. It can significantly affect the wrist function if the distal radius fracture is not treated properly.

There will be wrist swelling after distal radius fracture and the upper limb should be elevated, minimizing haematoma or fracture blister formation.

Indication

- In the presence of wound or open fracture, priority for wound management is most important and debridement surgery may be required.
- When the fracture is displaced, with associated joint dislocation or failed conservative management, it should be considered for operative reduction and internally fixation. This aims for minimizing complications of fracture including fracture re-displacement, loss of wrist function and allowing early mobilization.

The Operation / Procedure

1. In general, internal fixation is accompanied with the use of prophylactic antibiotic for reducing infection. Fixation methods include use of K-wire, tension band wire, screws, plates and sometimes the fixation is assisted by arthroscopy. After fixation, cast immobilization is usually unnecessary.
2. In complicated situations such as severe open fractures, comminuted fractures, or when there is soft tissue defect, extra procedures such as bone grafting, external fixation frame or microvascular reconstruction may be necessary, usually in stages.

Before the Operation / Procedure

1. Doctor will explain to patient about operation, risks and complications. Patient has to sign a consent form.
2. Body check up as doctor's order will be done before operation, eg. blood tests, urine routine, ECG and X-ray.
3. Correct and stabilize underlying medical problem, eg. heart disease, hypertension, diabetes mellitus etc.
4. Pre-operative assessment by anaesthetist if necessary.
5. To reduce swelling of injured limb before operation by cold compress or using pillows.
6. Fasting according to doctor's advices.

After the Operation / Procedure

1. Hospital care
 - 1.1. Close observation of vital signs, wound and drainage.
 - 1.2. Resume diet according to doctor's advice.
 - 1.3. Intravenous therapy, analgesic and antibiotic according to doctor's prescription.
 - 1.4. Fractured limb will be wrapped in elastic bandage and elevated to control bleeding and swelling.
 - 1.5. Keep wound clean and dry, if there is a drain, it will be removed according to doctor's order.
 - 1.6. Balanced diet.
 - 1.7. The patient may follow the exercise program as recommended by the doctor.

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



Distal Radius Fracture Fixation

2. Home care after discharge
 - 2.1. Keep wound clean and dry. Follow-up as advices.
 - 2.2. The fracture may take 6 to 8 weeks to heal.
 - 2.3. Physiotherapy training is the first step for rehabilitation. After the fracture is fixed, or when external cast is off, the wrist must mobilize as soon as possible, regaining mobility and preventing muscle atrophy.
 - 2.4. If there is signs and symptoms of wound infection, such as redness, swelling, hotness, pain or presence of purulent discharge, consult doctor immediately.
 - 2.5. Additional investigation and treatment for osteoporosis may be necessary as it is a common risk factor for elderly patient with wrist fracture.

Risk and Complication

1. Complications related to anaesthesia is rare (<0.01%). But may lead to permanent harm or death.
2. Risks related to the operation itself:
 - 2.1. Wound infection.
 - 2.2. Wound healing problem.
 - 2.3. Tendon (especially Extensor Pollicis Longus), nerve (especially Superficial Radial and Median) and vascular injuries.
 - 2.4. Malunion and non-union.
 - 2.5. Fracture re-displacement.
 - 2.6. Residual pain, weakness and stiffness (from injury +/- surgery).
 - 2.7. Compartment syndrome, Complex Regional Pain Syndrome.
 - 2.8. Follow-up surgeries.

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: distal radius fracture (2021)

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

Patient's Signature: _____ Date: _____