

Fragility Hip Fracture Fixation

Introduction

- Common fragility hip fractures are mainly divided into Intracapsular femoral neck and intertrochanteric fractures
- Common in elderly because of osteoporosis and they tend to fall more often
- Most patients are treated by operative management, which allows early mobilization. This is especially important for geriatric patients because prolonged bed rest will increase the chance of other morbidities like:
 - Chest infection
 - Urinary tract infection
 - Pressure sore
 - Deep vein thrombosis complicated by pulmonary embolism which can be life-threatening
- Non-operative management is appropriate in only a small group of elderly patients who are:
 - Non-ambulators prior to fracture and the fracture caused minimal discomfort, or
 - Those who are medically unfit for surgery

The Procedure

The internal fixations of fragility hip fractures are mainly divided into 2 kinds:

- Femoral neck fractures:
 - Patient is put under anesthesia (general / spinal)
 - Patient is put on a traction table for fracture reduction under X - ray
 - Incision is made over lateral side of upper thigh
 - Reduction is made and screws are usually inserted
- Intertrochanteric fractures:
 - Patient is put under anaesthesia (spinal/general)
 - Patient is put on a traction table for fracture reduction under image intensifier
 - Incision is made over lateral side of upper thigh
 - A sliding hip screw or intramedullary nail is usually used for fixation

Risk and Complication

Anesthesia

General

- Bleeding, wound infection, deep infection, hematoma, iatrogenic and periprosthetic fracture, leg length discrepancy, nerve damage leading to paralysis and paresthesia of limb, blood vessels damage leading to loss of limb, retained foreign body, deep vein thrombosis, pulmonary embolization, fat embolization, acute myocardial infarction, cardiovascular accident, mortality, deterioration of pre-existing disease leading to worsening of symptoms, deterioration of ambulation status after fracture

Specific

- Fixation failure, delay union, malunion, nonunion, implant loosening or cutout, implant failure and breakage, avascular necrosis of femoral head, secondary osteoarthritis of hip, bone cement implantation syndrome and cement at unwanted location (for cement augmentation)
- Other treatment modalities and re-operation for complication may be necessary

Before the Procedure

- Treat and optimize existing disease conditions, e.g. ischemic heart disease, hypertension, diabetes mellitus, anemia, lung disease
- Fasting few hours before the procedure

After the Procedure

- A drain may be inserted, it will be removed within few days after the operation
- Patient is allowed to walk with walking aids supervised by physiotherapist
- The weight allowed to put on the injured limb depends on fracture stability
- Off stitches at about 2 weeks after operation

Alternative Treatment

- For debilitated patients, patients who are medically unfit for surgery or have very poor soft tissue condition, they can be treated conservatively by:
 - Adequate analgesics
 - And / or Traction
- However, complications like pneumonia, urinary tract infection, bed sores or deep vein thrombosis are more likely in prolonged bed-bound patients

Follow Up

- You should keep your wound clean and dry
- You must follow instructions strictly on taking medication, see the doctor as scheduled
- If you have any excessive bleeding, collapse, severe pain, fever or signs of wound infection such as redness, swelling or large amounts of discharge, see your doctor immediately or attend the nearby Accident and Emergency Department

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. The actual risks may be different for different patients. During the operation, unpredictable condition may arise, and additional procedures may be performed if necessary. For further information, please contact your doctor.