仁安醫院
UNION HOSPITAL

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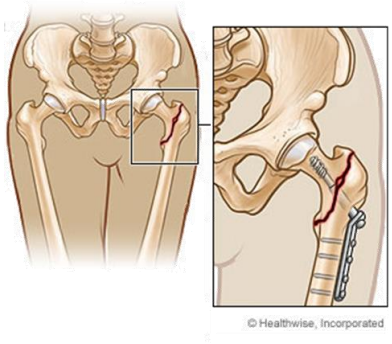
Operation Information

Internal Fixation of Hip Fracture

Introduction

Most hip fractures result from low-energy falls in elderly patients who have weakened or osteoporotic bone. In some cases, the bone may be so weak that the fracture occurs spontaneously while the person is walking or standing. Fractures in the femoral neck from repeated impacts are often seen in long-distance runners.



Source:
https://losangeles.networkofcare.org/pr/library/article.aspx?hwid=zm2534

Non-operative management is only appropriate in a small group of elderly patients who are non-ambulators prior to fracture and the fracture caused minimal discomfort, or are medically unfit for surgery.

Most patients are treated by operative management, which allows early mobilization and prevents prolonged bed rest causing other morbidities.

Pins, screws, rods or plates are used for internal fixation to hold the bone in place while it heals. It tends to be used for either

- a fracture outside the socket of the hip joint, or
- a fracture inside the socket of the hip joint if it is stable and has no displacement.

Outcomes

The expected outcome of this operation is to fix the fracture in order to prevent further deterioration, reduce pain and resume mobility.

Procedures

1. The operation is performed under general or spinal anaesthesia.
2. An incision is usually made on the side of the thigh near the hip.
3. The fragments of the broken bone are put back into alignment under intraoperative radiography.
4. The fragments of the broken bone are secured by screws, metal plates, wires, or pins.
5. A drain may be placed to drain out any collections of blood or fluid.
6. The wound is closed with stitches or staples, and then covered with a sterile waterproof dressing.

Possible Risks and Complications

As with all major surgical procedures, complications can occur. The incidence of complications increases with the patient's age and pre-existing medical comorbidities.

1. Blood clots in a vein (2-5%), leading to deep vein thrombosis or pulmonary embolism
2. Bleeding (2-5%), usually small and can be stopped in the operation
3. Pain (2-5%), usually improves with time
4. Infection (1-2%), most cases can be prevented or treated with antibiotics. Occasionally, an operation to wash out the joint may be needed. In rare cases, the implants may need to be removed and replaced at a later date.
5. Altered leg length (1-2%), may require further operation to correct the difference

6. Avascular necrosis (<1%), another operation with hip replacement may be required to fix the problem
7. Keloid scar formation (<1%), massaging with cream may help to relieve the problem
8. Hip stiffness (<1%), manipulation of the joint under general anaesthesia may be necessary
9. Bone damage (<1%), additional procedure on fixation may be required
10. Nerve damage or blood vessel damage (<1%), may cause weakness or altered sensation of the leg
11. Blood vessel damage (<1%), additional procedure may be required for repairment

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or leakage, further operations may be required.

Pre-operative Preparations

1. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
2. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia.
3. Cigarette smoking may reduce your ability to heal. We strongly recommend you quit smoking.
4. Routine tests such as blood tests, ECG, X-ray and MRI scan may be performed.
5. Nursing staff will assist you in cleaning the skin and performing shaving if necessary.
6. No food or drink six hours before the operation.
7. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
8. An indwelling urine catheter may be inserted. Or, please empty your bladder before the operation.

Post-operative Instructions

General

1. After general anaesthesia, you may:
   - experience discomfort in the throat after tracheal intubation.
   - experience side effects of anaesthesia including feeling tired, drowsy, nausea or vomiting. Inform the nurse if symptoms persist or worsen.
2. Please inform the nurse of wound pain. Proper pain relief treatment by injection or oral medication may be prescribed by the doctor.
3. If there is an indwelling urine catheter inserted, it normally will be removed a few days later.
4. A pair of compressive stockings are placed on your feet to prevent blood clots from forming.
5. Length of hospital stay is 1-2 weeks. Additional stay for rehabilitation may be required.

Wound Care

1. Keep the wound dry and clean. Follow the doctor's and nurse's advice on wound care.
2. If a wound drain is present, it would be removed in 2-3 days after the operation.
3. The stitches or staples will be removed in 14 days after the operation.

Activities

1. You are encouraged to mobilize as soon as possible. Adequate pain relief allows you to do this.
2. You are assisted to sit out of bed the day after surgery.
3. You may bear as much weight as tolerated.
4. Physiotherapy starts soon after surgery. Physiotherapist will advise you on the use of walking aids and exercises to strengthen the muscles around the damaged hip.
5. Low-impact activities such as walking and gardening are always recommended. Heavy activities such as contact sports and heavy lifting should be avoided for 3 months.

Diet

Diet is allowed gradually after recovery from anaesthesia. (Please follow doctor's instruction)

Advice on Discharge

1. Please comply with the medication regime as prescribed by your doctor.
2. The wound may be still covered with waterproof dressing when you are discharged. Do not remove it unless you are told to do so. Always keep the dressing clean and dry.
3. Rehabilitation exercises are gradually increased as instructed by the doctor and physiotherapist.
4. Immediately consult your doctor or return to hospital for professional attention in the event of excessive bleeding, severe pain or signs of infection at your wound site such as redness, swelling, shivering, high fever over 38^{o}C or 100.4^{o}F, or any symptoms of deterioration of neurological function such as new numbness, tingling or weakness of the operated limb.
5. Any follow-up consultations should be attended as scheduled.

Alternative Treatment

For debilitated patients, patients who are medically unfit for surgery or have very poor soft tissue condition, they can be treated conservatively with 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.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

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Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details
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