仁安醫院
UNION HOSPITAL

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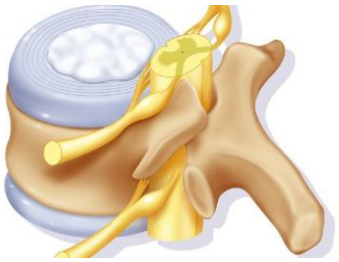
Operation Information

Lumbar Spine Discectomy

Introduction

The intervertebral discs are fibrocartilaginous cushions serving as the spine's shock absorbing system, which protect the vertebrae, brain, and nerves, as well as allow some vertebral motion.



Source: https://tr.approby.com/nucleus-pulposus-nedir-ve-omurganiza-nasil-yardim-eder/

A lumbar spine discectomy is used to treat ruptured or herniated discs in the lower back. It can be done in two ways: minimally invasive (microendoscopic and percutaneous) and open. The conventional way (open) consists of laminectomy and discectomy through a larger incision, whereas the minimally invasive way requires one or two much smaller incision(s) and is performed with fine instruments. In both cases, a surgeon removes the part of the disc, causing the problem.

Outcomes

The expected outcome of this operation is to relief of symptoms due to compressed nerves in the lower (lumbar) spine by the problem disc, such as weakness, pain, or tingling in the back or the legs. The exact procedure performed is individualized for each patient and the benefits also vary.

Procedures

1. The operation can be performed under general or spinal anaesthesia.
2. An incision is made in the lower back:
   - Conventional: 5 cm incision is made down the midline of the lower back.
   - Minimally invasive: One or two 1 cm incision is made next to the midline of the lower back.
3. The desired spinal level is confirmed with intraoperative radiography.
4. Removal of the problem disc fragment:
   - Conventional: A small piece of the lamina bone from the affected vertebra is removed (laminectomy) to allow better access of the problem disc. The problem disc fragment is removed directly (discectomy).
   - Minimally invasive: An endoscope and fine instrument are used to remove the problem disc fragment.
5. The nerve root is inspected for residual compression and cerebral spinal fluid leak.
6. The wound is closed with sutures.

Possible Risks and Complications

1. Nerve root injury
   - Conventional: 1-5%; Minimally invasive: <1%
2. New or worsening neurological deficit, e.g. motor, sensory deficit and radiculopathy
   - Conventional: 1-5%; Minimally invasive: 1-5%
3. Medical complications, e.g. deep vein thrombosis, pulmonary embolism, myocardial infarction, urinary tract infection, acute kidney or lung disorder
   - Conventional: 1-5%; Minimally invasive: 1-5%
4. Surgical instrument breakage during the procedure
   - Conventional: 1-5%; Minimally invasive: <1%
5. Dural injury or cerebral spinal fluid leak (almost all cases can be amenable during the surgery)
   - Conventional: 1-5%; Minimally invasive: 1-5%
6. Hematoma
   - Conventional: <1%; Minimally invasive: <1%
7. Wound complications, e.g. infection, suture granuloma
   - Conventional: 1-5%; Minimally invasive: <1%
8. Recurrent disc herniation or prolapse
   - Conventional: 1-5%; Minimally invasive: 1-5%

** 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. Good hygiene can prevent surgical wound infection. Therefore, we advise you to clean up yourself on the day of operation.
2. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
3. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia. Please inform doctor if you are taking medications that affect blood coagulation such as Aspirin, Warfarin, Xarelto or Pradaxa, nonsteroidal anti-inflammatory drug (NSAID) such as Ibuprofen, Naproxen and Chinese medication.
4. Routine pre-operative investigation such as blood test, ECG, X-ray and MRI may be performed.
5. Nurse will supply surgical soap to you for washing the operation site as necessary.
6. Shaving of the incision site may be required.
7. No food or drink six hours before operation.
8. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
9. 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 includes 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.

Wound Care

1. Keep the wound dry and clean. Follow doctor's and nurse's advice on wound care.
2. If wound drain is present, it will be removed in 1-2 days after operation.
3. Stitches will be removed in 2 weeks or dissolved in 3 weeks.

Diet

A normal diet may be resumed as instructed after recovery from anaesthesia.

Activities

1. Heavy lifting (greater than 10lb), awkward twisting, leaning and rigorous exercise should be avoided for 6 weeks.
2. Good posture is vital to help reducing strain on your spine.
   - Sit well supported in a chair with a rolled towel in the lowest section of your back to maintain your natural curves.
   - For the first week after the surgery, do not sit for longer than 30 minutes. Changing your posture and taking frequent walks help preventing back stiffness and promote your recovery.
   - When getting out of bed, roll onto your side with your knees bent and slide your feet over the edge of the bed. Use your arms to help pushing your trunk into a sitting position as your legs lower to the floor.

Advice on Discharge

1. The wound is 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.
2. Immediately consult your doctor or return to hospital for professional attention in the event of excessive wound oozing, swelling or pain, high fever over 38^{o}C or 100.4^{o}F, any symptoms of dura injury (nausea, vomiting, dizziness, lightheaded), or deterioration of neurological function (new numbness, tingling or weakness of limbs), etc.
3. Any follow-up consultations should be attended as scheduled.

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
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification