Lumbar microdiscectomy

Indications

Lumbar microdiscectomy is a procedure to remove a herniated disc fragment causing nerve compression in the lumbar spine. Patients with herniated discs in the lumbar spine commonly present with symptoms related to pressure on a lumbar nerve root. These symptoms may include lower back pain and pain radiating to the hip/buttock area and down the leg, sometimes all the way to the foot. Nerve pain radiating down the leg is called “lumbar radiculopathy” or “sciatica”. There may be associated tingling and numbness in the distribution of the nerve as well. In severe cases, the muscles of the legs and foot may become weak. Surgical treatment is considered when conservative management such as anti-inflammatory medications and physical therapy are ineffective. Most importantly, if there is persistent severe pain, numbness, tingling, and/or weakness caused by a herniated lumbar disc clearly visible on imaging, then lumbar microdiscectomy is indicated.

Surgery description

In a lumbar microdiscectomy, the patient is placed under general anesthesia. Neuromonitoring (nerve monitoring) is routinely performed. The patient is positioned prone (on their front) and all pressure points are padded. The lumbar area is prepped and draped in a sterile fashion. Intravenous antibiotics are given, taking care to avoid any drug allergies. Next, fluoroscopy (intraoperative X-ray) is used to localize the affected disc level (or levels in the case of multilevel microdiscectomy). This allows placement of a small (minimally-invasive) incision. The operating microscope is brought in for careful microdissection. The spine is accessed and a small opening called a laminotomy is performed to allow access to the spinal canal and to the offending disc herniation. The disc herniation is carefully removed, taking great care to decompress the nerve root. Importantly, the normal (remaining) portion of the disc is not removed since it serves as an important structural support for the spine. At the conclusion of the microdiscectomy, the disc fragment has been removed and the space for the nerve has been restored. Finally, the incision is closed in layers. Biocompatible glue (Dermabond) is placed over the skin sutures and a waterproof dressing is applied.

Postoperative care and outcome

This is minimally-invasive outpatient (same-day) surgery. Copious local anesthetic is placed around the incision at the end of surgery so that the patient wakes up as “numb” and therefore as comfortable as possible. Walking immediately is encouraged. Going up and down stairs is fine. The main thing is to avoid heavy lifting, to avoid rapid twisting, and to avoid bending at the waist. Keeping the back straight and using the knees to bend down is less likely to strain the back. With these precautions, we are mostly concerned with preventing the risk of recurrent lumbar disc herniation (reherniation) which is approximately 5-10%. Regarding dressing care, showering

immediately is fine, just blot the dressing dry after each shower, take the dressing off in 1 week, and please avoid total immersion (like bath, jacuzzi, or pool) until after the sutures are removed (2 weeks).

The outcome from lumbar microdiscectomy is generally excellent. The vast majority (80-90%) of patients have relief from the nerve pain within a few weeks (and sometimes immediately). While it depends on the nature of the job, most patients can go back to work in approximately one week postoperatively. At the two-week postoperative visit, we inspect the incision, remove the sutures, adjust or wean medications, and start physical therapy. It varies among patients, but usually 6-8 weeks of physical therapy are indicated to optimize neuromuscular and functional outcome. We see patients again at 3 months postoperatively to reassess outcome and need for further medications or therapy.