SOUTHEASTERN NEUROSURGICAL SPECIALISTS

Dr. Khajavi Pre & Post op Instructions for **ENDOSCOPIC MEDIAL BRANCH TRANSECTION**

Please read these instructions carefully. This document will not only review the preoperative instructions, but also address a lot of questions you may have about your post-operative course. Your significant other or your caretaker should also read these instructions. Understanding what to expect after the procedure, what is normal and what is not, will help alleviate any fears or concerns. This document is specific for patients undergoing any kind of endoscopic medial branch transaction, but some variation may exist in your specific case and will be discussed at your pre-op appointment.

PRE-OPERATIVE INSTRUCTIONS:

Your admission will be registered with the hospital by our office. We will contact your insurance company for pre-certification requirements. You will be responsible for inquiring whether a second surgical opinion is required by your insurance. If you have any questions regarding insurance pre-certification, please contact our office.

You will be given Hibiclens (chlorhexidine) solution to use to wash the skin where we plan to make your incision. For your surgery this will be your lower back from the bottom of your shoulder blades to the top of your buttocks. Use the Hibiclens solution on a wash rag, loofah or sponge to wash the area gently for about 2 minutes. Then rinse thoroughly. If you are not given this at the preadmission testing area, it can be purchased at most any pharmacy.

The evening before your surgery, DO NOT EAT OR DRINK ANYTHING AFTER MIDNIGHT. This includes gum, mints, and your morning coffee. The anesthesiologist will not administer anesthesia if you have had anything by mouth after midnight, and your surgery will have to be postponed.

If you are on any medications, please check with the anesthesiologist to see whether you should take them on the morning of surgery. In general, you will be able to take all medications prior to the day of the procedure except some diabetes medicines, some blood pressure medicines and all blood thinners. If you are on any blood thinners or steroids, please contact our office. Unless otherwise instructed, you should stop using any anti-inflammatory medications such as NSAIDS (Ibuprofen, Motrin, Advil, Naprosyn, Celebrex, Meloxicam, Diclofenac, Mobic, etc.), any product containing aspirin, and any herbal supplements (such as: St. John's Wort, fish oil or other sources of Omega -3 fats, Vitamin E, etc.), 7 days before your surgery. These substances can cause bleeding problems and serious anesthetic reactions. If your cardiologist or neurologist requires you to take aspirin this may be able to be continued before surgery, and in most cases can be resumed immediately after surgery. Please discuss all your medications with Dr. Khajavi's office.

Northside hospital policy re GLP-1 receptor antagonists: If you are taking a GLP-1 receptor antagonist (like Ozempic, Wegovy, etc), you will need to hold your last dose. That means if you take it daily, you must hold it 1 day before surgery, and if you take it weekly, hold it 1 week before surgery. You should only have a clear liquid diet the day prior to surgery. Please discuss all your medications at your pre-op visit with Northside hospital.

You should consider stocking up on groceries, including easy-to-prepare meals before you are admitted, so that your return home will be as smooth as possible.

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PLEASE REMEMBER: It is important for you to be prepared for your discharge so that non-medical issues (like a ride home or someone at home to care for you) do not delay your discharge from the hospital. You will be discharged when the doctor feels you are stable, not when it may be convenient. Plan ahead to avoid any problems!

THE DAY OF SURGERY:

Please bring the following items with you to the hospital:
- your insurance card or information
- a list of your medications and dosages
- a list of allergies
- any paperwork given to you by the hospital
- a living will, if you have one prepared (you may prepare one at the hospital if you wish)
- Photo ID
- Comfortable clothes to wear home
- Any discs containing X-rays, CT's, or MRI's that you have not turned into the office

Important note: If our office gives you a time to arrive at the hospital, and the hospital gives you a different time, please go with the time given to you by our office. It is best to show up early, since schedule changes can occur due to emergencies or medical issues that may arise with other patients. Although you may be told that your procedure is at a specific time, keep in mind that that unless you are the first case of the day, the time you are given for your procedure is just an estimate. The actual time of your procedure will depend how much time it takes to complete the cases before you.

Upon arrival to the hospital, you will be given a hospital gown to change into. Do not wear or bring jewelry. Do not wear make-up. Do not wear dark fingernail polish. You will be asked to remove dentures and contact lenses before surgery. You will be discharged from the hospital when you are medically stable to go home. It is important for you to be prepared for your discharge so that non-medical issues (like a ride home or someone at home to care for you) do not delay your discharge from the hospital.

POST-OPERATIVE INSTRUCTIONS:

You will likely receive general discharge instructions from the hospital when you are discharged. If there is any discrepancy between those instructions and our instructions below, please default to our instructions.

After you are discharged from the hospital you will need to call our office to set up your first post-op appointment, if this was not already done pre-op. This will typically be 10-14 days after surgery. Please keep in mind that the initial postoperative visit is generally set up as a telemedicine visit, primarily as a convenience for patients, but you are always welcome to come in and see us in person. If you have staples or sutures that need to be removed, then you'll need to come to the office for that visit.

MEDICATIONS:

For this procedure, we generally recommend over-the-counter medication such as Tylenol or Aleve or Motrin. You MAY be given a prescription for an opioid (narcotic) pain medication like Norco (hydrocodone/acetaminophen). This is for the pain from the small incisions, and not for your chronic low back pain. Other medication's that may occasionally be prescribed include tramadol (a medication similar to opioids), or a muscle relaxer (like methocarbamol). If you are taking medications other than those prescribed by Dr. Khajavi, you should discuss possible drug interactions with your pharmacist or primary care physician.

Opioid pain medication should only be taken when you have incisional pain, and muscle relaxers only when you have muscle spasm. As this is a fairly minor procedure prescription refills are generally not necessary. In the rare case where a prescription refill is required, refill request should be made during office hours only (Mon-Thurs 8am - 4:30 pm, Fri 8am - noon), and you can expect a 24 to 48 hour turn-around time for prescription refills. Do not wait until the last minute to request medications.

If you are taking an opioid or tramadol, you should begin tapering off the pain medications within a few days of your procedure. As soon as you are comfortable, take a nonprescription pain medication such as Tylenol for pain relief. Please keep in mind that the maximum amount of Tylenol (acetaminophen) that you can take in a 24-hour period is 4000 mg, and that there is usually already some Tylenol in the opioid pain medication you are given. You may also take an anti-inflammatory such as Aleve or Motrin. Resume medications you were taking for other pre-existing medical conditions before you came into the hospital, unless otherwise advised by Dr. Khajavi. Do not resume blood thinners until cleared by Dr. Khajavi, usually 4-5 days after the procedure. The one exception to this rule is baby aspirin. If you have a heart condition Dr. Khajavi may recommend that you continue daily baby aspirin before and after your procedure without missing any doses. Please discuss this with Dr. Khajavi and/or his assistants.

Constipation is a common side effect of opioid pain medication. You should use an over-the-counter stool softener, drink plenty of fluids, and walk as much as possible. The benefit of walking cannot be overstated. If you do become constipated, you should try Milk of Magnesia, a Fleet's enema, a rectal suppository, or if necessary, Magnesium Citrate (if available, this was recently move to the market concerns about contamination). These are available over the counter at most pharmacies. Please notify the office if your constipation becomes severe.

DRESSING/WOUND CARE:

Your incision may or may not be covered by a dressing. We often use a liquid surgical adhesive to seal the wound after closure instead of sutures or staples. If your incision was closed with a liquid surgical adhesive, you may shower immediately after surgery. If a dressing covers your glued incision, you may remove it as soon as you get home.

If you have staples or sutures and a gauze dressing instead of a liquid surgical adhesive, the dressing may be removed 2 days after surgery. There is no need to reapply another dressing(s) or use any special ointment. If there is some slight drainage for a few days after the dressing is removed, then apply clean 4 x 4 gauze with a few pieces of tape until the drainage stops. Wait another 2 days before you get the wound wet in the shower. Staples will be removed in about 10-15 days post op at your first postoperative appointment.

When showering, you can use whatever products you normally use. There are no special requirements, except you cannot take a bath or go in a pool for 1 month after surgery.

Finally, if you were told that there was a durotomy at the time of surgery, there are specific instructions regarding bedrest, sitting limitations, and wound drainage precautions which will be given to you at the time of discharge.

PREVENTION OF PNEUMONIA AND BLOOD CLOTS IN THE LEGS:

Pneumonia can occur after surgery when patients do not take big, deep breaths, and from inactivity (sitting too long or even worse, laying down too much). Blood clots (DVT) can also occur after any procedure requiring general anesthesia, and inactivity plays a major role in their formation. A blood clot in your leg can cause pain and swelling in the affected leg (calf usually), and if it breaks off, can travel to your lungs (PE) and be fatal. Using the incentive spirometer you received in the hospital frequently helps prevent pneumonia but walking as much as possible helps prevent both pneumonia and DVT/PE.

WHAT TO EXPECT AFTER THE PROCEDURE:

It is normal for your incisions to be sensitive for a few days and for a little redness to occur. A small amount of drainage it's also not uncommon, even if the incision is glued closed. The drainage is usually yellowish or pinkish color, and if it occurs you should just put a sterile 4 x 4 gauze on the incision with a couple pieces of tape. Change the dressing once a day until the drainage stops, which will usually be in a few days. If you notice any excessive redness, swelling, or warmth around the incision, or the drainage is excessive, or appears purulent (pus like), then please call the office. Some bruising around the incision is not uncommon and will improve with time.

It is normal to run a low-grade fever after General anesthesia and is usually due to atelectasis. Atelectasis is when very small areas of the lung are not fully inflated, which causes the temperature. Reasons for atelectasis include not taking enough deep breaths and not walking enough. This can be prevented by performing the deep breathing exercises using the incentive spirometer you were given in the hospital and increasing your activity. You should use the incentive spirometer 15-20 times (deep breaths) /hour while you are awake. Several (4-6) short walks a day are encouraged. If you have a fever over 102 or chills, please call the office.

The goal of the procedure was to cut the nerves that are coming from the joints, in hopes of improving your back pain. This procedure is not generally considered a cure for chronic back pain, but rather a long-lasting treatment, often several months, and comparable to traditional ablation. In general, most of your incisional pain should improve over a period of 1-2 weeks. Finally, we generally inject a medication called Exparel around the incisions, which is a long-acting numbing medicine like the Novocain you get at the dentist's office. It does not eliminate the incisional pain but reduces it for 3-4 days. Consequently, if 3-4 days after the procedure you feel a little bit more pain around your incisions, that is quite normal.

It is not uncommon for patients after undergoing any procedure requiring general anesthesia to feel tired or have a lack of energy. There are several reasons for this, including medication side effects, alteration in sleep cycle, and change in activity level. The best way to combat this is to go for plenty of short walks (preferably outside), minimize the amount of opioid medication taken, and to try not to take naps during the day (so that nighttime sleep is better), and staying involved socially with friends and family. Returning to work is also very helpful, although the timing of that will depend on your surgery any type of work you do. Finally, some patients, particularly older patients, may experience some confusion or memory problems after General anesthesia. This too is usually related to some of the previously mentioned factors that affect energy level. The confusion is often worse at nighttime but should improve with time. Contrary to popular belief, anesthesia does not cause dementia/Alzheimer's, so if the patient's confusion or memory problems do not improve, there may have been some unrecognized memory deficits prior to surgery, and consultation with Neurology should be considered.

RETURN TO DAILY ACTIVITIES:

For about the first week following the procedure, you will need to avoid any strenuous activity, heavy, lifting or vigorous exercise. By the second week, however, you should begin to feel less pain. During your second post op week, you should be able to take more walks, go out to eat, or go shopping. We would advise you not to walk on the treadmill for the first month after surgery and not to walk the dog, as these activities could lead to unintended falls. Do not do any strenuous activities including lifting, stretching, bending, pushing, or pulling. Gradually, over the next couple of weeks you will be able to progressively increase your activities. Use the following as a guideline:

1. Driving. You should not drive for at least three days after general anesthesia, but this may vary. You may drive a few days after surgery if you are feeling well and you are not taking opioid pain medication. You may ride in a car on short trips. If you must ride over 30 miles, get out and walk every 30-45 minutes. It can be more comfortable for you to lay your seat back when traveling long distances. You should not plan to travel for long distances for at least a month after surgery.

2. Working. If you have a manual labor type job, you should not plan to return to work for 4 weeks or more following surgery. If you have a predominantly sedentary job, you can plan to return to work in 1-2 weeks. At your post op visit, Dr. Khajavi's team will assess you and determine at what point you may return to work. Caution and common sense should be used to determine whether you should engage in any activity.

3. Activity. No lifting, pulling, or pushing objects over than 15 pounds for the first two weeks. (Examples: infants, grocery bags, vacuum cleaners, lawn mowers.) Avoid bending at the waist; rather bend with the knees and hips. Avoid traditional abdominal or back strengthening exercises during the first 2 weeks. You may climb stairs at any time but use the handrails. It may be advisable to have someone with you the first few times. Avoid sitting for more than 30 minutes at a time as longer periods may aggravate your back pain. When you sit, try to use some type of lumbar support. Remember to maintain good posture. Rest between activities, as you may find that you tire more easily after general anesthesia. This is to be expected, and it may take some time before your energy level returns to normal. You should abstain from sexual activity for at least 2 weeks following the procedure. Sexual relations are permissible after this period but should not be too vigorous. Use your judgment. Remember: the above lengths of time for sitting and walking will vary with each patient.

4. Exercising. Resuming exercise should be done carefully. Walking is one of the best exercises to improve your overall fitness and endurance level. Start with a few small trips a day and gradually increase the distance according to your tolerance. Don't try to do too much too soon! Do not participate in any aerobic type of activity (including tennis and golf) or contact sports for two to three weeks following surgery.

PLEASE NOTE: CONDITIONS WILL VARY BETWEEN INDIVIDUAL PATIENTS. IT IS VERY IMPORTANT TO DISCUSS YOUR PARTICULAR SYMPTOMS WITH DR KHAJAVI OR HIS MEDICAL STAFF. THIS INFORMATION SHOULD BE USED AS A GENERAL INFORMATION SHEET ONLY AND SHOULD NOT BE USED IN LIEU OF MEDICAL TREATMENT. THE POST-OPERATIVE INSTRUCTIONS LISTED ABOVE ARE GUIDELINES. DR. KHAJAVI MAY HAVE SPECIFIC DO'S AND DON'TS IN YOUR CASE.

Disclosure / Conflict of Interest Statement:

Collaboration between surgeons and medical device industry has contributed to important advances in spinal surgery. However, some of the collaborations can create situations in which the care of the patient is affected. Dr. Khajavi has served as a consultant for NuVasive (now Globus), a spinal instrumentation company, since 2004. As one of the earliest surgeons to perform minimally invasive lateral lumbar fusion surgery, Dr. Khajavi receives compensation for activities directly related to teaching and sharing of his experience / results, including reimbursement for travel expenses, meeting registration fees, and a fair honorarium if applicable. Dr. Khajavi also receives payment and/or royalties for product development activities. Dr. Khajavi occasionally receives compensation for certain clinical research projects, but the vast majority of his clinical research receives no compensation or funding. All compensation is at fair market value, and accurately reflects Dr. Khajavi's time, effort, and expertise committed to the activity.

Dr. Khajavi staunchly believes that the patient's interests always come first, and his recommendation regarding surgery is never influenced by his relationship with medical industry. Dr. Khajavi feels patients need to understand a surgeon's exact relationship with medical industry, and to determine whether any conflict of interest exists. Dr. Khajavi welcomes any questions or conversations regarding your specific surgery, but instrumentation is generally not utilized in lumbar laminectomies and microdiscectomies.

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