Audience Questions from the Event App at Spine Evolutions 2025

Medial Branch Nerve Transection

How do you handle that most insurance companies only pay for 2 nerve transections?
So far, I've not had difficulty getting insurance approval for these procedures. The most difficult thing has been trying to figure out which insurance company limits the number of levels they will cover. We have been following each carrier in order to determine if there is a limitation to the number of nerves they will pay for in one setting. This will be somewhat specific to your location in the country and your specific carriers.
(Answered by Wade K. Jensen, MD [Star Valley, WY])

What CPT® code are you using for endoscopic medial branch nerve transection?
64772
(Answered by Peter Derman, MD [Dallas, TX])

What are key physical exam findings that differentiate patients who are candidates for a medial branch nerve transection vs discogenic back pain?
Given that facet arthropathy often comes with degenerative disc disease, this is a common diagnostic dilemma. In general, I try to ask the patient to quantify their total amount of pain, and then after the facet injections or medial branch blocks, ask how much percentage wise did that total amount of pain improve. If that is an adequate amount of improvement for them, I will proceed with a medial branch transection procedure. If it is an unacceptable level of pain improvement, such as less than 50% improvement, then we often move on to further diagnostic tests to determine if discogenic pain is the primary complaint.
(Answered by Wade K. Jensen, [Star Valley, WY])

Have you noticed in any patients that the medial branch nerve regenerates?
Not typically. If you resect 1 cm of the nerve, it will not typically grow back. Some of this may depend upon the age of the patient and their propensity to want to heal. In a very young patient, it is certainly possible that the two nerve endings find their way back together and the procedure may need to be performed again. To minimize this, resection of 1 cm of the nerve is optimal.

There are studies comparing MBT to RFA showing better outcomes with the medial branch transections. The follow-up times on most of these studies are two years or less. I know of no study that looks at the revision rates of medial branch nerve transection. However, I suspect these recurrences will be low but will not be zero. There will be times that the medial branch or a branch of the medial branch will be missed during the medial branch transections and may lead to recurrent pain and need for revision. Also, there may be times when the nerve regrows and forms a neuroma that would cause recurrent symptoms and may benefit from a revision surgery.
(Answered by Wade K. Jensen, MD [Star Valley, WY])

Streetman D, Fricker JG, Garner GL, et al. *World Neurosurg.* 2023;169:36-41. doi:10.1016/j.wneu.2022.10.020

Yeung A, Gore S. *Int J Spine Surg.* 2014;8:23. doi:10.14444/1023

Kountis V, Goldstein GL, Kountis HM. *J Pain Relief.* 2017;6(25). doi:10.4172/2167-0846.1000295

Meloncelli S, Germani G, Urti I, et al. *Ther Adv Musculoskelet Dis.* 2020;12:1759720X20958979. doi:10.1177/1759720X20958979

Du T, Lu G, Li J, et al. *Pain Physician.* 2022;25(1):E87-E94.

For medial branch nerve transection, do you find that it is more difficult to perform after previous RFA?
No. After RFA, there are times that I see some scarring around the nerve or even some thickening of the medial branch. However, the RFA procedure is not a contraindication to performing a MBT. In fact, this is probably the best patient population to start with as it solves a problem for your pain provider and for a patient who has lost hope that there is any solution to their pain given that RFAs have been less effective with time.
(Answered by Wade K. Jensen, MD [Star Valley, WY])

If the patient doesn't have a response to facet injections, would you still perform an MBT?
No. Facet injections or medial branch blocks provide diagnostic information regarding the etiology of the pain. Patients who do not get even temporary relief from these are unlikely to benefit from MBT and would not be considered as appropriate candidates.
(Answered by Peter Derman, MD [Dallas, TX])

How many levels would be your max when performing MBT?
Many insurers will only reimburse for MBT of a limited number of nerves per day (eg, 2 nerves), which may be insufficient in patients with multilevel and/or bilateral disease. For instance, 6 nerves are involved in the setting of symptomatic bilateral L4-S1 facet arthropathy. In scenarios in which insurance limits the number of nerves, patients may opt for multiple trips to the operating room on separate days or pay out of pocket for non-covered nerves to have it all done at once. Surgeons should have patients sign an Advanced Beneficiary Notice of noncovered (ABN) if pursing the later route. Reimbursement considerations aside, efforts should be made before surgery to identify the exact pain generators so as to focus the surgery. Responses to MBB targeting a limited number of nerves is essential in this process.
(Answered by Peter Derman, MD [Dallas, TX])

How many incisions do you make for MBT at multiple levels?
Incisions should be placed where they need to be to afford adequate access to the relevant anatomy. Appropriately placed incisions are more important than fewer incisions. One incision is usually made per nerve to be transected. In some cases, however, multiple levels can be approached from a single incision; this is more often the case in the lower lumbar spine because of the lumbar lordosis.
(Answered by Peter Derman, MD [Dallas, TX])

When treating bilateral L4-5 and L5-S1 facet pain with MBT are you performing it with one surgery or two?
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(Answered by Peter Derman, MD [Dallas, TX])

How many RVUs is an MBT?
CPT code 64722 is assigned 7.84 RVU. The first nerve therefore gets assigned 7.84 RVU, and subsequent reimbursed levels 50% of that. So, two nerves is 11.76 RVU.
(Answered by Peter Derman, MD [Dallas, TX])

Would you recommend medial branch nerve transections for new surgeons collecting cases for neurosurgical boards?
There is substantial evidence supporting the safety and effectiveness of MBT. Surgeons should assess their own skills and risk tolerance when deciding how to practice and what cases to tackle during their board collection period. However, endoscopic MBT is a legitimate surgical procedure that is supported by the literature. Surgeons performing it during their board collection should be aware of the supporting data so as to justify their decision making.
(Answered by Peter Derman, MD [Dallas, TX])

Are you performing medial branch nerve transections in the hospital or ASC?
This procedure can be performed in either setting.
(Answered by Peter Derman, MD [Dallas, TX])

Is there a difference in reimbursement?
Surgeon reimbursement is the same regardless of whether this procedure is performed in a hospital vs ASC. However, facility fees are higher in the hospital.
(Answered by Peter Derman, MD [Dallas, TX])

Are you performing your own medial branch blocks or sending them out to pain physician colleagues?
Both options are viable. Some surgeons perform their own MBBs while others send them to the pain doctors.
(Answered by Peter Derman, MD [Dallas, TX])

Is it required to get preauthorization for MBT?
This depends on the insurer.
(Answered by Peter Derman, MD [Dallas, TX])

If performing multiple levels, when do you bring the patient back for the next surgery?
There is a 90-day global period for each procedure "session." This 90-day period covers any nerves addressed during that trip to the OR. But other nerves (eg, above or below or contralateral side) are not included in the original global period; they get their own global period and can be done on any subsequent day. While you could theoretically bring the patient back to the OR the next day for additional nerves, it can be beneficial to wait a few weeks to assess the patient's response to the first "session" before proceeding. Some patients may feel substantially better and may not want / need additional intervention.
(Answered by Peter Derman, MD [Dallas, TX])

Sacroiliac Nerve Transection

Given the extensive ligamentous anatomy on the sacrum, how often are you able to directly visualize the lateral branches vs simply ablating spanning lateral to the S1 to S3 foramen?
I am able to visualize the nerve about 90% of the time when performing this technique endoscopically.
(Answered by Saqib Hasan, MD [San Francisco, CA])

At S1, where are you working to transect or denervate the nerve(s)?
The medial branch of the L5 dorsal ramus descends from the L5-S1 neuroforamen and runs along the junction between the lateral aspect of the S1 SAP and the sacral ala, where it can be transected.
(Answered by Peter Derman, MD [Dallas, TX])

Hasan S, Halalmeh DR, Ansari YZ, Herrera A, Hofstetter CP. Full-endoscopic sacroiliac joint denervation for painful sacroiliac joint dysfunction: a prospective 2-year clinical outcomes and predictors for improved outcomes. *Neurosurgery.* 2025;96(1):213-222. doi:10.1227/neu.0000000000003053

ULBD

If needed, are you able to access a contralateral disc herniation during ULBD?
It is possible to perform a contralateral discectomy during a ULBD. In fact, some surgeons prefer a contralateral interlaminar approach (rather than an ipsilateral transforaminal approach) to foraminal disc herniations at L5-S1. However, it is technically less challenging to remove paracentral disc herniations from the ipsilateral side. So, performing a ULBD from the side of a unilateral paracentral disc herniation is usually the most straightforward approach.
(Answered by Peter Derman, MD [Dallas, TX])

How do you code ULBD when performed endoscopically? Options include 63047 or 62380. However, many insurers do not cover 62380, and there are no RVUs assigned to this code.
(Answered by Peter Derman, MD [Dallas, TX])

Cervical

Is the craniocaudal angle the same for a central stenosis cervical case vs foraminotomy (in-line with the disc vs splitting the spinous processes)?
I prefer to approach in line with the disc space when performing endoscopic posterior cervical foraminotomies. This allows me to work in line with the pedicles and ensure I have removed IAP and SAP flush with the top of the pedicle below and the bottom of the pedicle above.

However, a slight caudal-to-cranial trajectory can be helpful in central stenosis cases because it minimizes the amount of bone that must be removed (due to the ability to undercut the trailing edge of the cranial lamina) and facilitates access to the contralateral side between the spinous processes.
(Answered by Peter Derman, MD [Dallas, TX])

What size scope do you use for cervical cases?
The 15°, 7 mm scope is commonly used for cervical cases. The 10 mm scope can also be used.
(Answered by Peter Derman, MD [Dallas, TX])

Thoracic

Do you routinely visualize the thoracic nerve when performing endoscopic transforaminal thoracic discectomy?
No.
(Answered by Peter Derman, MD [Dallas, TX])

Is there more risk for dural tear when performing endoscopic thoracic discectomy vs lumbar?
The literature suggests that risk of durotomy during uniportal endoscopy is not inherently higher in the thoracic spine than in the lumbar spine.
(Answered by Peter Derman, MD [Dallas, TX])

Boadi BI, Ikwuegbuenyi CA, Inzerillo S, et al. Complications in minimally invasive spine surgery in the last 10 years: a narrative review. *Neurospine*. 2024;21(3):770-803. doi:10.14245/ns.2448652.326

What is the direction of your bevel when first introducing the cannula for endoscopic thoracic discectomy?
The working cannula is introduced with the bevel upward/medially against the facet joint. It should be pushed against the rib and allow you to visualize the facet. The initial docking point is lateral, and the drill is used to take down bone to allow entry into the canal.
(Answered by Peter Derman, MD [Dallas, TX])

What bur do you prefer to use when performing endoscopic thoracic discectomy?
The 3.5 mm coarse round diamond NSK drill is very safe around the neural elements but is also very efficient at removing bone.
(Answered by Peter Derman, MD [Dallas, TX])

Pump Pressures

Are you concerned about glucose level, in CSF and intradural pressure with the intradural endoscopic approach?
I'm not concerned with glucose level, but I keep my pump pressures at 25 mmHg for all my endoscopic cases. Intradural cases with the endoscope are relatively rare.
(Answered by John I. Ogunlade, DO (St. Louis, MO])

Farshad M, Stauffer A, Zipser CM, et al. An experimental model for fluid dynamics and pressures during endoscopic lumbar discectomy. *Neurospine*. 2024;21(3):745-752. doi:10.14245/ns.2448350.175

Do you find bathing the thecal sac and neural elements in room temperature fluid to be an issue? Do you ever warm the fluid to body temperature?
Cold irrigation can lead to changes in somatosensory-evoked potentials (SSEPs) and motor-evoked potentials (MEPs) with neuromonitoring when doing cervical or thoracic cases. In lumbar cases, it has not been an issue. For the reasons above, I use warmed irrigation for all of my endoscopic cases.
(Answered by John I. Ogunlade, [St. Louis, MO])[9]

Park JH, Hyun SJ. Intraoperative neurophysiological monitoring in spinal surgery. *World J Clin Cases.* 2015;3(9):765-773. doi:10.12998/wjcc.v3.i9.765

Is the pressure during spine endoscopy different than what is shown on various pumps used in surgery?
Yes. It is dependent on the level of the scope in relation to pump (pump pressure and flow settings, outflow of the scope, etc).
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Vargas RAA, Hagel V, Xifeng Z, et al. Durotomy- and irrigation-related serious adverse events during spinal endoscopy: illustrative case series and international surgeon survey. *Int J Spine Surg.* 2023;17(3):387-398. doi:10.14444/845

General Endoscopic Spine Surgery Questions

When using TXA to assist with hemostasis, is it used in the IV bag and how much?
Almost all of the faculty are using TXA intravenously. Most use 1 g pre-op and some use a higher dosage of 20 mg/kg pre-op. No provider is adding TXA locally. Some providers are using epinephrine in the endoscopic fluid, just like one would do with a shoulder scope.
(Answered by Wade K. Jensen, MD [Star Valley, WY])[11]

Goldstein K, Jones C, Kay J, Shin J, de Sa D. Tranexamic acid administration in arthroscopic surgery is a safe adjunct to decrease postoperative pain and swelling: a systematic review and meta-analysis. *Arthroscopy*. 2022;38(4):1366-1377.e9. doi:10.1016/j.arthro.2021.10.001

What are the tips and tricks for controlling bleeding when performing laminectomies endoscopically?
I use a diamond bur for drilling at the intersection of the ligamentum flavum and ventral laminar surfaces to minimize bone bleeding. If bleeding is uncontrolled with bipolar cautery, I will use the backflow port to deliver thrombin into the field. If venous bleeding is still a problem, then I use Floseal hemostatic agent down the tubular retractor and use the one-step dilator to deploy it to surgical field.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Do you change your approach if you know that the disc is calcified vs a soft disc herniation?
The location of the disc herniation is what dictates the approach. There are may ways to approach each disc herniation at each location. Ultimately, it depends on surgeon preference and skill.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

How do you remove calcified disc herniations endoscopically?
With a bur.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

In cases of disc sequestration, do you remove only the disc fragment or do you perform annulotomy as well?
Only the fragment. If annular defect is visible, I then perform a disc annuloplasty.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Does the width of the annular tear change your mind on how you approach the case endoscopically?
No.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Do you use the endoscope for synovial cyst resection?
Yes, usually through a ULBD approach if the cyst is in lateral recess.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Do you request that the radiologists use sagittal oblique T2 views on MRI to better visualize foraminal pathology?
No, I just use standard MRI sequences.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

What is the utility of EMG in confirming the level if there is multilevel foraminal stenosis?
Oftentimes, I find it is nonspecific and difficult to interpret. In my opinion, this only helps provide a more definitive target for surgery. I often send the patient for a targeted nerve block to confirm that EMG findings are consistent with pain generator.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Is your electrocautery unipolar or bipolar?
The Arthrex FlexTip RF probe is bipolar.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

How often have you experienced a nerve palsy?
I have not had a nerve palsy to date.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

Pars Repair

What is the CPT code for repairing the pars defect with screws?
For the lumbar spine:

- 22325: Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; lumbar.
- 22328: Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; each additional fractured vertebra or dislocated segment.

What is your post-op protocol after surgical repair of Pars fractures?

- LSO for first 6 weeks
- Start neutral spine trunk stabilization at 4-6 weeks post-op
- CT scan at 6 months to assess healing (could consider CT at 3 months)
- RTP at 6 months post-op, if healed
- (Presented by: Christoper Yeung, MD [Phoenix, AZ], at Spine Evolutions 1-25-25)

What type of screw are you using for pars repairs?
Currently using a fully threaded headless compression type screw for pars fracture repairs.
(Presented by: Christoper Yeung, MD [Phoenix, AZ], at Spine Evolutions 1-25-25)

Autograft Bone

Where do you gather autograft bone when performing ACDF?
Autograft obtained from anterior osteophytes taken down during surgery and/or bone shavings from endplate.
(Answered by John I. Ogunlade, DO [St. Louis, MO])

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