Spine Evolutions

Surgeon Faculty Answers to Audience Questions

Presenting faculty surgeons answer questions submitted by attendees at the Spine Evolutions event held on January 6, 2024. These answers were provided directly by surgeons. This handout is intended for educational and scientific purposes only and is not meant for promotional uses.

Medial Branch Nerve Transection (MBT) Audience Questions Answered by Wade K. Jensen, MD (Star Valley, WY)

How do you position the patient for this procedure? Wilson frame?
Jackson table. This is positioned just like any other traditional lumbar case with the abdomen free to help prevent bleeding. This certainly could be done on a Wilson frame; however, there would be no significant advantage to using the Wilson frame over the Jackson frame for a medial branch transection procedure.

Is there literature to support improved medical outcomes with ASC surgery for spine?
The outcomes from a medial branch transection surgery would be the same regardless of its surgical location (hospital versus ASC). Medical literature is being published about the safety of performing outpatient surgeries in orthopedics and spine surgery. This includes total knee arthroplasty, total hip arthroplasty, spinal fusions, laminectomies, discectomies, anterior cervical discectomy infusions, anterior cervical discectomies, and cervical arthroplasties, to name a few. Protocols designed to optimize postoperative pain control and provide quicker recovery have been developed. ERAS® stands for Enhanced Recovery After Surgery. These protocols focus on hydration up to within 3 hours of surgery with a complex carbohydrate drink, making sure the patient is not dehydrated, and mounting a stress response. ERAS protocols were originally developed for colorectal surgery, but began to be used in orthopedic joint literature in the 2010 time frame, quickly followed by spine surgery by 2012. I personally have used an ERAS protocol since 2012 with good success, less post-op pain, quicker recovery, and an earlier return home. Preempting pain with a multimodal preoperative pain regiment is also commonplace. My current preoperative protocol includes use of Celebrex® 200 mg and Lyrica® 75 mg. In my occasional patients who are narcotic sensitized, my protocol is to use a long-acting narcotic such as Oxycontin® in a single preoperative dose to help preempt pain. Combining the preoperative pain regimen with an ERAS protocol optimizes a patient for early discharge.[1-5]

For those who perform medial branch transections, do you routinely get SPECT-CT and will you still perform the procedure if the SPECT-CT is negative?
For those of us doing MBTs, a SPECT-CT is not commonplace, but does add value to the workup in certain cases. Most surgeons use MRI imaging with facet arthropathy and abnormal fluid collection in the joints followed by a diagnostic block of the facet joint of concern or the two medial branch nerves that innervate that facet. When multiple joints are of concern, you can inject multiple joints or medial branches.

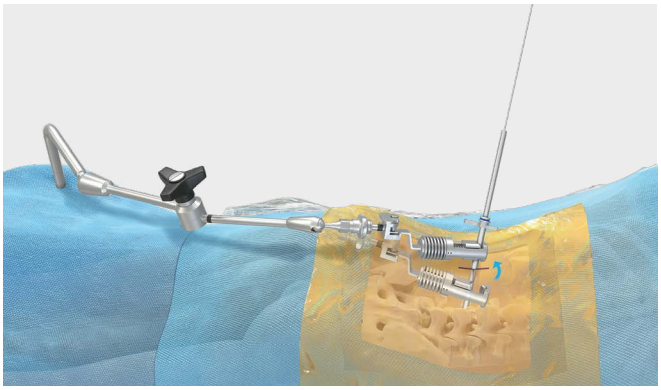
For example, if I was concerned about the L4/5 and L5/S1 facet joints bilaterally I would send the patient for an L4/5 and L5/S1 facet joint injection bilaterally or a medial branch block at the L4 TP, L5 TP, and sacral ala. Either of these techniques would give you similar information for facet arthritis. If this positively improved their pain more than 75% I would proceed to a bilateral medial branch transection at the L4 TP, L5 TP, and sacral ala.

If, for example, the patient had an L5 pars fracture (spondylolysis without spondylolisthesis and no radiculopathy) and I was concerned the L5 pars is where the pain was coming from, I would order a medial branch block at the L5 transverse process and the S1 sacral ala

bilaterally (the innervation of the L5 pars area). If this improved their pain by 75% transiently I would proceed with a medial branch transection at the L5 transverse process and sacral ala bilaterally. A facet joint injection at the L5/S1 level in this case would not be of benefit as it would miss the innervation of the pars area.[6]

Does the faculty use neuromonitoring in their MBT cases early in the learning process?
No. Given that the transverse process serves as a block and protection to the exiting nerve root, none of us use neuromonitoring for the medial branch transection. If for the first 5 to 10 cases the surgeon wanted to use neuromonitoring this certainly would be reasonable.

How does the black cannula holder work?
The black cannula holder is essentially a way to hold the outer cannula so it does not move significantly. This holder does still allow some play, allowing you to move along the width of the transverse process without adjusting the black cannula holder. This does allow you to take your hand off of the endoscope, especially if you combine this with the depth stop on the scope. This helps with the nondominant hand fatigue that does occur with prolonged endoscopic cases when you're managing the scope, scope cannula, and scope depth, all with your nondominant hand.



How do you get these cases authorized? Are you sending to a pain doctor first?
These cases are authorized through the normal process. The CPT code is 64772, which is defined as a surgical procedure on the extracranial nerves, peripheral nerves, and autonomic nervous system, transection procedures. This is billed per nerve transected. For example, if the L4/5 facet joint on the right was the pain generator, the surgeon would perform a medial branch transection at the L4 transverse process and L5 transverse process.

Your pain doctor is oftentimes doing the facet injections or medial branch blocks as part of the diagnostic workup. If they get good relief, a medial branch transection could be offered to the patient after a single successful diagnostic block.

Is this procedure typically done bilaterally, or is it solely dependent on the patient's complaint?
This is subject to the patient's complaints. If the complaint is unilateral the procedure is only performed unilaterally. However, if symptoms are bilateral the procedure is performed bilaterally. Sometimes the insurance company will only cover two nerve transections in a single surgical setting. For example, if they only reimburse for the first two nerves then some providers will give the patient the option to pay for the other performed levels using an advanced beneficiary notice (ABN), which is essentially an agreement to pay cash for the levels the insurance company is not going to pay for. Other times the procedure will be split up into two different sessions where two nerves will be performed in one day. After those are healed the other two nerves can be performed on a different surgical date.

Do any of the faculty perform MBT with the patient awake?
Yes, medial branch transections can be performed awake. Local anesthetic is used at the skin level and an additional 2-3 cc is used at the medial border of the transverse process to anesthetize the medial branch nerve.

Currently of our faculty doing this procedure about half of them are performing the procedure on asleep patients and half are done awake.

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How do you determine how many levels you are performing?
Diagnostic blocks are the key to determining how many levels you're performing. Ultimately you want to cover their pain pattern. For every single facet joint there are two nerves that innervate it. For example, if it's an L4/5 facet joint, one would need to transect the medial branch at the L4 transverse process and the medial branch at the L5 transverse process to block the innervation from the L4/5 facet joint.

Do you have to do a medial branch block prior to performing this surgical procedure?
Some sort of diagnostic block needs to be performed in order to ensure that you are blocking the pain generator. However, a medial branch block does not necessarily need to be performed if you're concerned primarily about the facet joint. In lieu of a medial branch block one could perform a facet joint injection instead.

For a surgeon who has never done an MBT before, what training do you recommend before their first case is booked?
We recommend coming to a 2-day Arthrex endoscopic basic training course. After the Arthrex 2-day course you will be trained to perform medial branch transections, interlaminar discectomies, and transforaminal discectomies. In general, the easiest of these procedures is the medial branch transection and would be a great place to start your endoscopic journey. Prior to performing your first case you may want to book a cadaver in your local ArthrexLab™ facility that you can perform this procedure on. Most surgeons do not need this step for the medial branch transection procedure. However, for the more complicated transforaminal approach often additional cadaver time is helpful.

How can you be sure that the patient's pain isn't discogenic pain?
Given that facet arthropathy often comes with degenerative disc disease this is a common diagnostic dilemma. In general, I try to ask them 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.

For patients with back pain and bad facets bilaterally at every level, how do you determine which areas to treat while also optimizing workflow?
This comes down to determining which are the most symptomatic and treating the most symptomatic levels. Ultimately you can do medial branch transections at every level in the lumbar spine and sacrum. However, there will likely be limitations to payment for all of those levels. I recommend finding the most symptomatic level and starting there. From there, economics will play a role. If they need 4 nerves transected, and the insurance company only pays for 2 nerves, the patient will have a choice of paying for the other 2 nerves or splitting the procedure into two different dates.

What is the learning curve for becoming facile with use of the spinal ultrasound in the office for the medial branch block?
If you have a long history of ultrasound experience, performing medial branch blocks is possible with limited additional training. However if you have very limited ultrasound experience performing medial branch blocks will be challenging. There are some basic workflow issues when using the ultrasound that are nice to have worked out doing basic orthopedic procedures such as intra-articular hip injections or subacromial bursal injections. Issues include maintaining optimal viewing angles while driving a needle to the anatomic location of the pathology and maintaining sterility of the procedure.

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How do you start doing your own blocks? How does this affect your relationships with pain physicians?
There are dedicated courses to teach providers how to do their own blocks. I personally have taken a NASS injection course. I do not think it had a negative impact on my relationship with my pain physician as I could have more intelligent conversations understanding the procedure better. Furthermore, there are times that your pain physician is not successful with radiofrequency ablation (RFA) and is looking for an alternative solution for their own patients. It's not uncommon for RFA to wear off prematurely and the pain doc cannot perform the procedure again until 6 months has passed per insurance criteria. The medial branch transection offers a solution for the pain doctor and the patient in pain.

What is your algorithm to work up a patient for facetogenic vs discogenic vs multifidus atrophy? Does SPECT-CT play a role in this differentiation?
This is not a simple work up as you can imagine. However, I try to simplify it to what is solvable, and by what means.

Let's start with multifidus atrophy from previous surgery or from a neurodegenerative disorder. If indeed they have multifidus atrophy, it's unlikely to be reversible. If they have standing fatigue due to muscle strain, surgical intervention with a medial branch transection will not help this problem. Oftentimes I will put them in a brace and in some situations a backpack-style TLSO brace to see if this improves their symptoms. Ultimately I do not have a solution to this problem and PT with intermittent brace use becomes the long-term solution.

Discogenic and facetogenic pain are really part of the same problem. As the disc degenerates the facets overload and wear. I think of it like a 3-legged stool with a disc in the front and two facets in the back. They typically wear out together. However, it has been my experience that facetogenic back pain is more bothersome than discogenic back pain. Diagnostic injections into the facet joints of concern or diagnostic injections of the medial branches that innervate the facet joint of concern serve as a proxy to how much pain relief they would get with a medial branch transection. If they find that this is a significant reduction in their pain then medial branch transections are a very reasonable approach. If discogenic pain is their primary concern then a lumbar fusion may be a more reliable, yet more invasive, option.

How do you address the sacral ala MBT? Do any faculty perform this procedure at this level?
Yes, the medial branch transection is performed at the sacral ala. It is very similar to performing a medial branch transection at the level of a TP. The medial branch at the sacral ala branches off the L5 root and comes over the sacral ala to innervate the L5/S1 facet joint. I personally name this the medial branch at the S1 sacral ala, but your pain doctor will name this the L5 medial branch. The surgical procedure is the same as at a TP, I start and focus my time at the top of the sacral ala, where the medial branch lives.

Are you using TXA via IV or in combination with local TXA?
All of the instructors are using TXA intravenously. Most use 1 g pre-op, and some use a slightly higher dose of 20 mg/kg pre-op. No provider is adding TXA to the local.

Many providers are using epinephrine in the endoscopic fluid, just like one would do with a shoulder scope.

Are you concerned about denervation of the multifidus and dynamic stability in these situations?
The anatomic studies show that the medial branch innervates the multifidus, but has polysegmental innervation. I know of no studies that have shown that the medial branch transection causes spinal instability. RFA and MBT procedures have been performed for many years, both in the United States as well as outside the United States. RFA has been studied and spinal instability has not been observed in excess of the natural history of instability. Anthony Yeung, MD (Phoenix, AZ), has performed this for more than 30 years, and there have been no case reports of dynamic instability. This

may be due to the polysegmental innervation of the multifidus muscle.[7-9] We will follow MBT data in our group and publish our findings with adequate power analysis.

What are the outcomes a few years after this procedure?
The outcomes years after this procedure show that there is more sustained pain relief than in its counterpart RFA. RFA has a known recurrence of pain in one-third of patients after 3 years.[10] In my experience, the patients that I see who have undergone MBT have longer relief than with RFA. This makes some sense as RFA is not performed under direct visualization and it is not conclusive that it injures the medial branch. Further, RFA does not transect the nerve and thus the nerve does not undergo Wallerian degeneration. In contrast, in the medial branch transection procedure the surgeon directly visualizes the medial branch, transects it and leaves a gap of approximately 1 cm in the nerve, making nerve regrowth nearly impossible. Further, after MBT, Wallerian degeneration occurs due to the myelin sheath being transected.

What is the revision rate for the MBT procedure?
There are many 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 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 could cause recurrent symptoms and may benefit from a revision surgery.[11,12]

How well does a positive SPECT-CT finding correlate with a good result post endoscopic MBT?
There are no studies with a positive SPECT-CT correlation with outcomes after endoscopic MBT. As we collect more data as a group we hope to answer some of these questions. However, if SPECT-CT allows the surgeon to be more accurate in the diagnosis, presumably this would lead to better outcomes. There is no data yet to support this statement.

How do you determine what level to perform the procedure other than medial branch blocks?
A set joint injection can be performed in lieu of a medial branch block. Most providers are using some sort of diagnostic injection in order to determine the appropriate levels to perform. There is not a reliable imaging study or physical exam finding alone that will substitute for a diagnostic injection.

Is it more difficult to perform an MBT if the patient had a 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 an 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.

Does the nerve grow back after transection?
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.

Are MBTs done for college athletes with pars fractures?
The pars area is innervated by the medial branch nerve. Therefore, transection of the medial branch could be a solution to back pain in the right patients. I have performed a medial branch transection for an L5 pars fracture bilaterally with good success.

As we collect more data, a larger number of patients and their outcomes will be followed and hopefully we will have a more definitive answer for a patient with a pars fracture without radiculopathy and whether an MBT is the right first-line surgical treatment.

Are medial branch blocks performed in the office or in the surgery center?
Currently medial branch blocks are performed in either a hospital setting or an ASC.

From a technical perspective I do believe the medial branch blocks can be performed in either the office or the surgical center. However, much like a Tenex™ procedure for tennis elbow could be performed in the office, the payment structure is only profitable outside the office setting, and thus they are performed in the ASC or hospital setting. MBT has similar issues.

Are you concerned about more radiation exposure to the surgeon with endoscopy vs more traditional minimally invasive spine procedures?
For medial branch transections specifically there is minimal radiation exposure. Needles can all be placed at the beginning of the procedure. Technically you can place needles and walk behind a shield receiving no radiation while your X-ray tech confirms the needle location. Once the needles are placed the remaining portion of the procedure can be done without fluoroscopy.

For the interlaminar approach there is also minimal radiation exposure. The only part of the procedure that requires fluoroscopy is identifying the L5/S1 interspace (assuming that's the location you're operating at). Once docked in the L5/S1 level the remaining portion of the procedure is done without fluoroscopy.

The transforaminal approach has the highest potential for radiation exposure. This is primarily due to placement of the needle in the optimal position in the neuroforamina. However, with some practice this actually happens fairly seamlessly with minimal fluoroscopy. After approximately 5 cases I find that it only takes 8 to 10 fluoroscopy shots for the entire procedure. Placing the needle is the most important part, and then confirmation of extent of reach near the end of the procedure.

In summary, I do not feel that there is extensive fluoroscopy time used for these procedures. The largest disadvantage, in my opinion, is having to wear a lead shield for the procedure.

Is it difficult to get insurance authorizations on endoscopic MBTs?
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.

Have you ever done a revision MBT? If so, how did you identify a failed medial branch transection?
Not yet.

How long did it take you to perform your first case? And how many cases did it take you to become proficient?
I ran continuous video for my first MBT case, which was a bilateral medial branch transection at the transverse process of L5 and S1. It took approximately 7 minutes per level. That was from the start of the endoscopic camera being inserted. There were an additional 1 to 2 minutes to place needles in the proper position, with fluoroscopy prior to that. Since then I would say the average time to perform a medial branch transection is approximately 5 to 7 minutes of endoscopic time per level.

Proficiency is a hard thing to define but I would anticipate someone being fairly proficient after five cases. Certainly there are things to learn in the following cases that will make you better and more proficient.

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Interlaminar and Transforaminal Endoscopic Approaches for Discectomy Audience Questions Answered by Raymond J. Gardocki, MD (Nashville, TN)

What happens if you create a dural tear? How do you repair it?
I don't leave a dural tear alone. I either use fibrin glue to close the dead space or a collagen matrix patch onlay plus fibrin glue for a larger tear (remembering that in this context anything 4 to 8 mm is a larger tear). If there is a tiny pinhole, I will occasionally do a blood patch. I also prescribe 3-5 days of Diamox® (acetazolamide) post-op to act as a chemical drain. I use the same dose used for acute mountain sickness.

How caudal is too caudal for interlaminar discectomy at L5/S1. Do you have any specific landmarks?
If you are willing to take some of the S1 lamina then there is no such thing. You are allowed to remove bone if necessary and this is typically necessary for a significant caudal migration. The advantage is that with the endoscope, the surgical corridor is so small you can do this without violating the facet joint.

How is the pump pressure regulated? Does this change based on the location being lumbar vs cervical, etc?
Endoscopic spine pumps have sensors that limit maximum pressure and maximum fluid flow. Arthroscopy pumps should not be used in the spine since they only regulate pressure and can flow dangerous volumes of fluid to maintain the commanded pressure. I set my pump to be no more than 60% of diastolic pressure and typically limit flow to no more than 0.35-0.45 L/min. In lieu of an endoscopic-specific pump, gravity is safest and the flow can be regulated by either the height of the bag or partial closure of the stopcock.

How are you positioning the patient? Wilson frame?
I position my awake patients on a Jackson flat top with one or two pillows underneath their chest and allow them to position themselves until they are comfortable. These are typically transforaminal approaches.

I position my general anesthesia patients on an open-top Jackson (4 poster) table with the memory foam face cradle. This includes my lumbar interlaminar patients and my posterior cervical patients. I do not want my patients in a kyphotic posture during a decompression for fear of under-decompressing. If the decompression is adequate when in lordosis, then I know they will be good in any position. Most of the decompression is done with a drill, not pushing a Kerrison into the stenotic canal.

Is there concern about too much fluid being introduced into the area of the spinal canal?
Yes, whenever there is blocked outflow, significant complications have been reported. I would refer you to the lecture by Mazda Farshad, MD (Zurich, Switzerland), and his work as he has studied this more than anyone of whom I am aware.

How do you know if you have removed all of the herniated disc?
How do you know if you removed all the herniatied disc with a standard microscopic discectomy? It's the same. The nerve is round and plump, it is pulsating to heart beat, it is easily retractable both medially and laterally, there are no palpable obstructions underneath the root. When you probe under the root medially, the back of the vertebral bodies and the apex of the disc are all on the same plane without protrusions into the canal.

What are your post-op restrictions?
I tell them not to bend, lift more than 10 lb for 2 days, or twist until 72 hours post-op, at which time they can resume activities as tolerated. There is no evidence that postoperative restrictions affect the rate of recurrent disc herniation.

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For revision decompressions or discectomies, is endoscopic surgery a good option?
If you can approach a previous MLD through a transforaminal approach then yes, it is. If you want to go through the previous scarred approach, then there is no advantage.

How do you handle caudal disc extravasation that are medial to the pedicle?
How do you handle that in a standard microdiscectomy with a McCullough or tubular retractor? The same way, by removing some of the leading edge of the caudal lamina to allow a more inferior reach. In this situation, it is best to get to the caudal end of the herniation before removal of extruded disc material to ensure complete fragment resection regardless of the approach.

Do you still perform endoscopic surgery if the patient has cauda equina syndrome?
It would depend upon the herniation but I would not recommend it since it is not yet the standard of care.

How are you coding for endoscopic discectomies?
I use 63030 for the interlaminar approach due to my interactions with insurance companies, but this will vary from state to state.

Are you doing multiple levels during the same surgery?
When necessary, I do. If you are doing more than 2 levels of discectomy in 1 sitting frequently, you need to question the accuracy of your diagnosis.

How is the approach different for high lumbar and thoracic herniations?
The transforaminal approach is the preferred method for high lumbar (above L3) and thoracic disc herniations due to the bone anatomy and spinal cord. The interlaminar approach would be reserved for decompressions in those regions.

Are any surgeons placing local steroid at the end of the case for transient neuralgia prophylaxis?
Some do and some don't. There is not compelling evidence either way but as the risk of infection with local steroid is so much lower with the endoscopic approach there is likely little downside.

Do you check the spinolaminar line on an oblique when you try to go interlaminar contralateral?
No, there is no need. This is not a "MILD" procedure, we go by the anatomy visualized through the endoscope not the fluoroscope. If you follow the ligamentum flavum and its bony attachments, you will do an adequate contralateral decompression for degenerative conditions as long as there is not significant underlying congenital stenosis.

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Transforaminal Approach for Discectomy

Do you always sequentially dilate for the transforaminal approach?
Not always; it depends upon the size of the foramen. There must always be sufficient room for both the DRG and the instruments inserted into the foramen. If the foramen is capacious, I will sometimes use the one-step dilator. If it is narrower, I will dilate to ensure I don't put excessive pressure on the DRG.

Do you always use the 7 mm scope? When would you choose a different size?
Arthrex has a very nice 6.3 mm scope with working channel that accommodates 3.5 mm instruments; it should become the go-to for transforaminal approaches. I don't have that endoscope at my facility yet so I use a 7 mm endoscope for the transforaminal approach. Whatever size you use, it is important to ensure sufficient room for both the DRG and the instruments inserted into the foramen.

If you perform the transforaminal approach with conscious sedation, what are you expecting the patient to tell you if you are too close to or approach the nerve root?
I expect them to tell me that the leg hurts in the distribution of the compressed DRG. The DRG is often behind the objective lens of the scope so it is easy to put excessive pressure on the DRG when advancing the endoscope into the canal or when trying to reach a cranial extrusion. In those cases, it may be advantageous to do a trans SAP approach to allow the entire endoscope to sit medial to the DRG. With the right level of sedation, the patient will exhibit signs of noxious stimuli (pain) if you put pressure on the DRG. This can be the patient voicing pain, squirming, heart rate going up, or even spikes in blood pressure. If those things occur when entering or advancing into the foramen, you need to check the DRG and ensure you are not putting pressure on it. Since it is behind the objective lens when going after herniations in the canal, you will not notice it unless you look for it.

Is it safe to protect the exiting nerve root and drill down an osteophyte?
In general, yes. But that depends upon where the osteophyte is and how much pressure you apply to the DRG.

When you take a small bite with the Kerrison or pituitary does the suction automatically remove the tissue or do you have to take the scope out every time?
No, but that is something that is being developed.

How do you assess that you have excellent hemostasis at the conclusion of the case when the aqueous environment could be tamponading epidural veins?
You stop the fluid flow at the end of the case and inspect for bleeding. I also suction out excess fluid and evaluate for residual bleeding or signs of CSF leak. You should be able to achieve a dry field before you remove the cannula and endoscope. This will also rule out an unnoticed CSF leak as the cannula will continue to fill with clear fluid if there is an unnoticed dural violation. If blood fills the cannula after suctioning out the fluid, you need to turn the fluid back on and find the bleeder.

Is there an instance where you have to turn the scope completely upside down to reach a far lateral herniation?
Yes, that's the only way to look laterally into the far lateral zone with the transforaminal approach and the patient in prone position. Some surgeons do the transforaminal approach with the patient in lateral position which means they need to keep the scope upside down for herniations in the canal and right side up for far lateral. I always position my patients prone because it is a more comfortable operative position and that way my patients are always positioned the same so there is no confusion for the OR staff.

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Has anyone noted ease of removing extrusions related to "fresh" herniations vs chronic herniations (not in relation to calcified herniations)?

Yes, fresh herniations are easier to remove in one piece, like a crawfish tail, than chronic herniations, which tend to be in many small degenerative pieces. But this is no different than a standard microdiscectomy.

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