Non-CME Webinar Series
designed with the trainee in mind
first Tuesday of the month

ASRA PAIN MEDICINE
THE ASSOCIATION OF PAIN PROGRAM DIRECTORS
ADVANCING EDUCATION IN MULTIDISCIPLINARY PAIN MEDICINE

Novel Minimally Invasive Interventions: Decompressions, Spacers, and Endoscopic Options

Tuesday, March 1, 2022

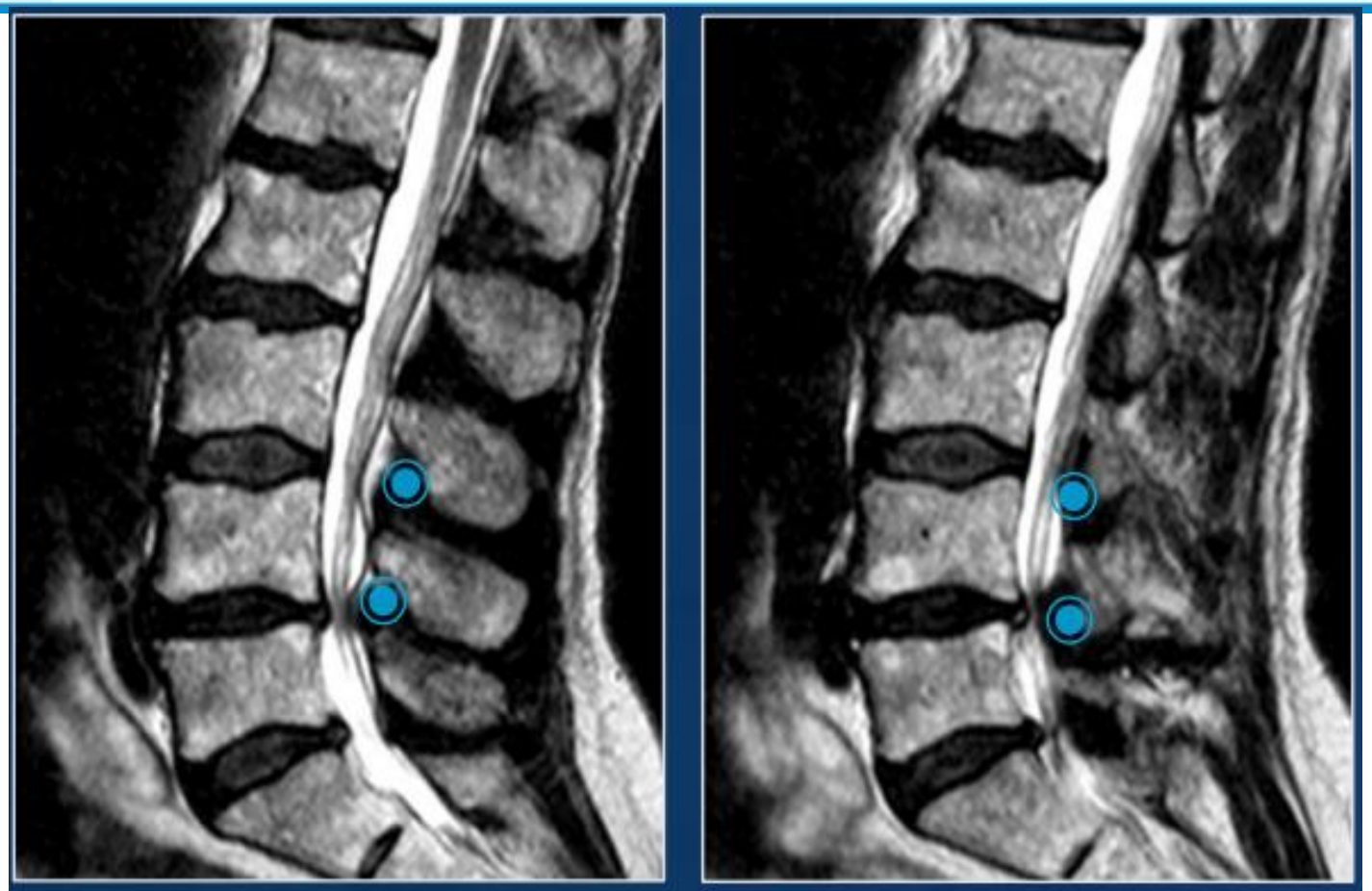
7-8:30 pm ET

Matthew Meroney M.D.

Assistant Professor

University of Florida Pain Medicine

- Indications – lumbar spinal stenosis (LSS) secondary in part to ligamentum flavum hypertrophy



Levels of stenosis with HLF that can be decompressed with *mild*

- MILD Advantages
  - No GA, minimally invasive, statistically near complication rate from ESI
  - No implants (low infection risk, generally no stitches (under 1 cm incision), post op pain mild/moderate
  - Minimal post op restrictions due to small wound, no disc work
- Disadvantages
  - Limitations of amount of anatomy removed
  - Radiation exposure

Safety Profile Equivalent to an ESI[1]

Level 1 RCT: MiDAS ENCORE

Equivalent Safety Profile

Adverse Event (AE)	ESI	*mild*
Device-and Procedure-Related AEs	**1.3%**	**1.3%**
Device- and Procedure-Related Serious AEs	**0%**	**0%**

- MIDAS Study

Adverse event	MILD N=149 % (n) [events]	ESI N=153 % (n) [events]	*P*-value
Total related AEs	1.3% (2) [2]	1.3% (2) [3]	1.00
Total related SAEs	0.0% (0) [0]	0.0% (0) [0]	1.00
MedDRA system organ class / preferred term			
Cardiac disorders	0.0% (0) [0]	0.7% (1) [1]	1.00
Sinus bradycardia	0.0% (0) [0]	0.7% (1) [1]	1.00
Injury, poisoning and procedural complications	1.3% (2) [2]	0.0% (0) [0]	0.47
Procedural haemorrhage	0.7% (1) [1]	0.0% (0) [0]	0.99
Procedural pain	0.7% (1) [1]	0.0% (0) [0]	0.99
Musculoskeletal and connective tissue disorders	0.0% (0) [0]	0.7% (1) [2]	1.00
Back pain	0.0% (0) [0]	0.7% (1) [1]	1.00
Pain in extremity	0.0% (0) [0]	0.7% (1) [1]	1.00

13 clinical studies & >25 published articles

Level 1 Data
Two Level 1 RCT studies

Significant Functional Improvement[1]
Clinically meaningful & statistically significant mobility & pain improvement

5-Year Durability[2]
88% of *mild* patients avoided back surgery for at least 5 years while experiencing significant symptom relief

Safety Profile Equivalent to an ESI[2]
Clinically proven safety equivalence to epidural steroid injections (ESIs)

> 30k patients treated to date[4]

mild

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The MOTION Study: A Randomized Controlled Trial with objective real-world outcomes for lumbar spinal stenosis patients treated with the mild® Procedure 1-Year results

Timothy R Deer [1], Shrif J Costandi [2], Edward Washabaugh [3], Timothy B Chafin [4], Sayed E Wahezi [5], Navdeep Jassal [6], Dawood Sayed [7]

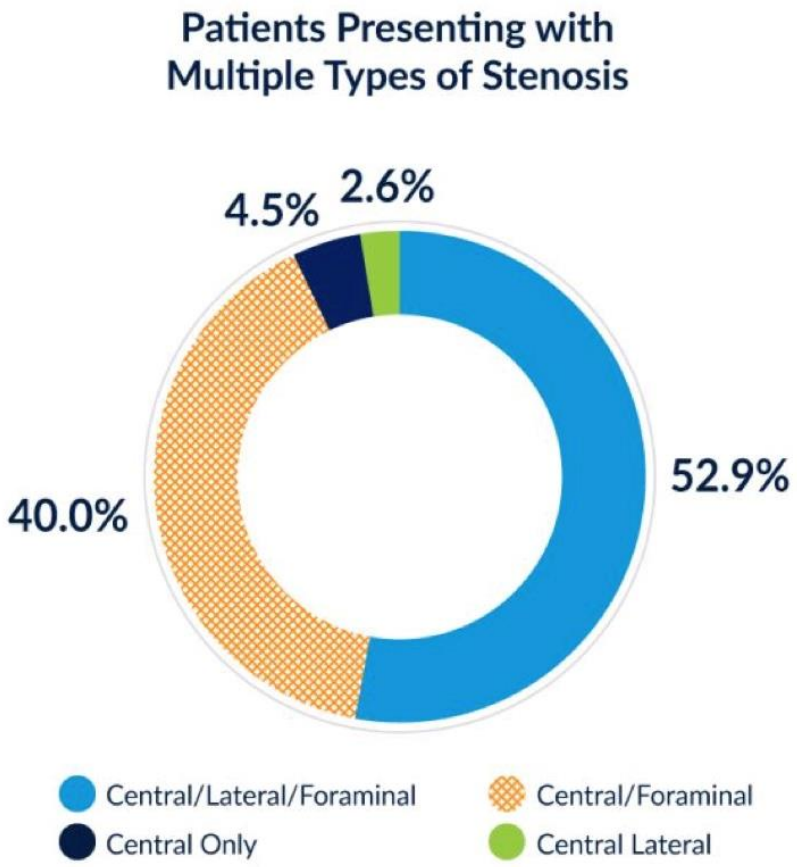
Affiliations + expand

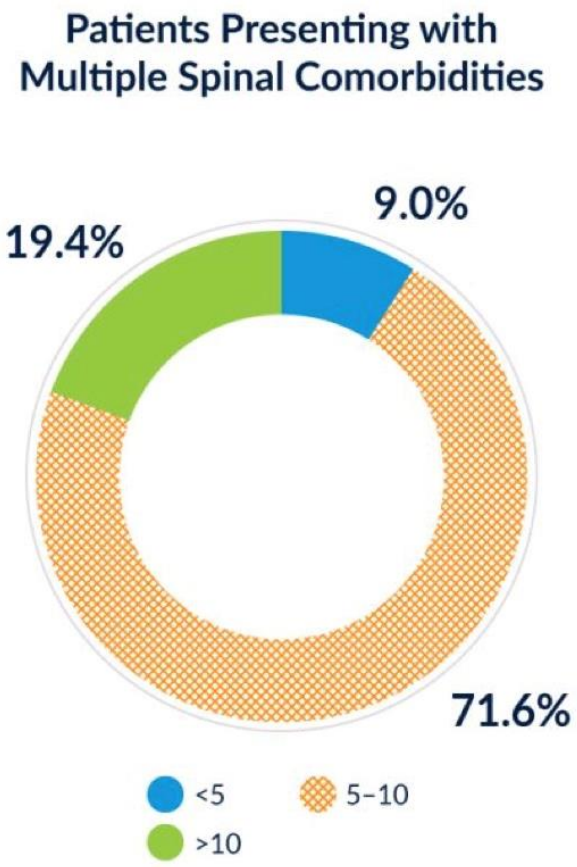
PMID: 35167700 DOI: 10.1093/pm/pnac028

The MOTION Study

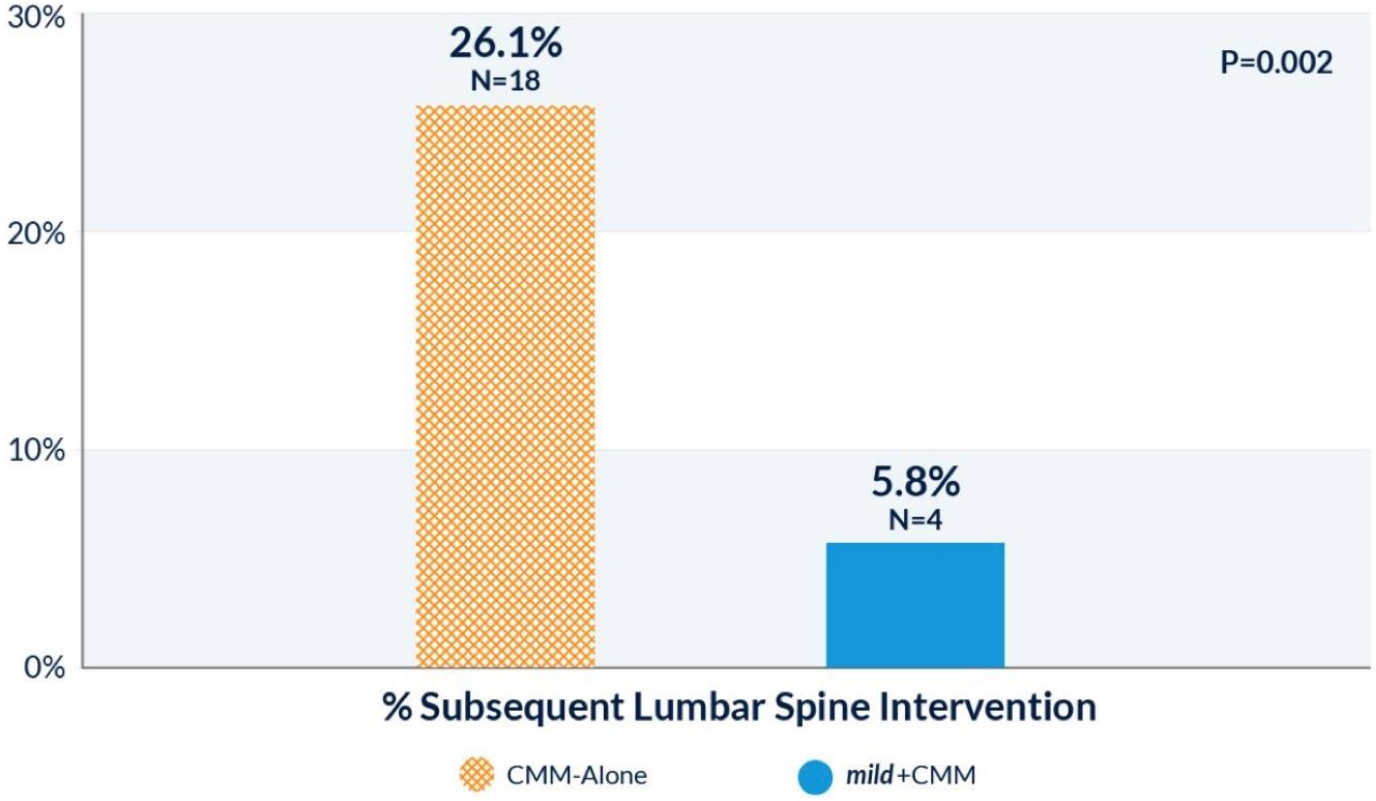
Figure 3. Walking Tolerance Test mean percent improvement at 6-month and 1-year follow-ups.

The MOTION Study

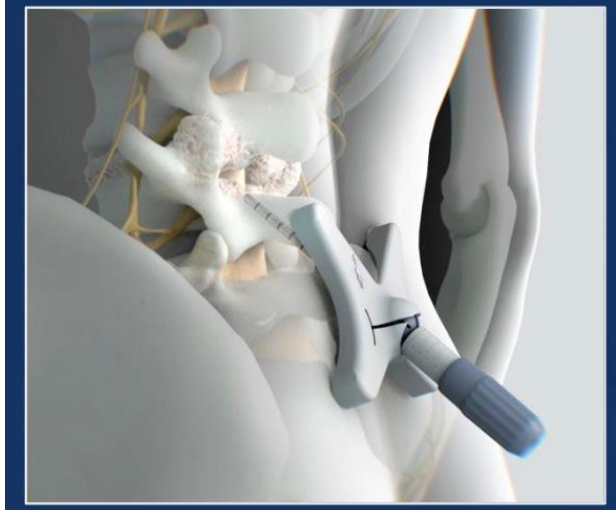




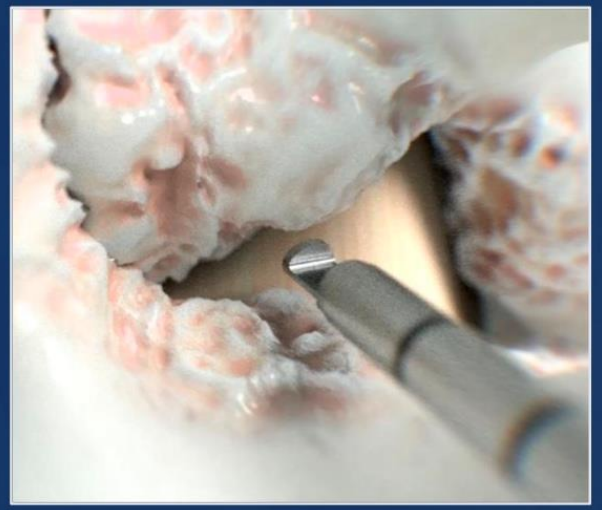
The MOTION Study



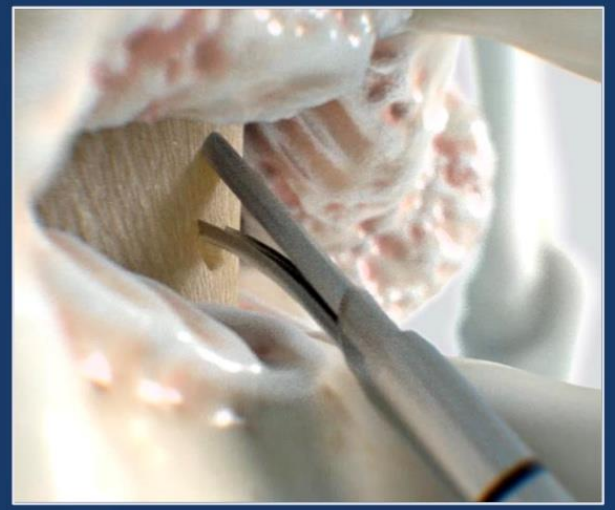
Outpatient decompression achieved through a tiny incision, smaller than the size of a baby aspirin



Insert portal (5.1mm)

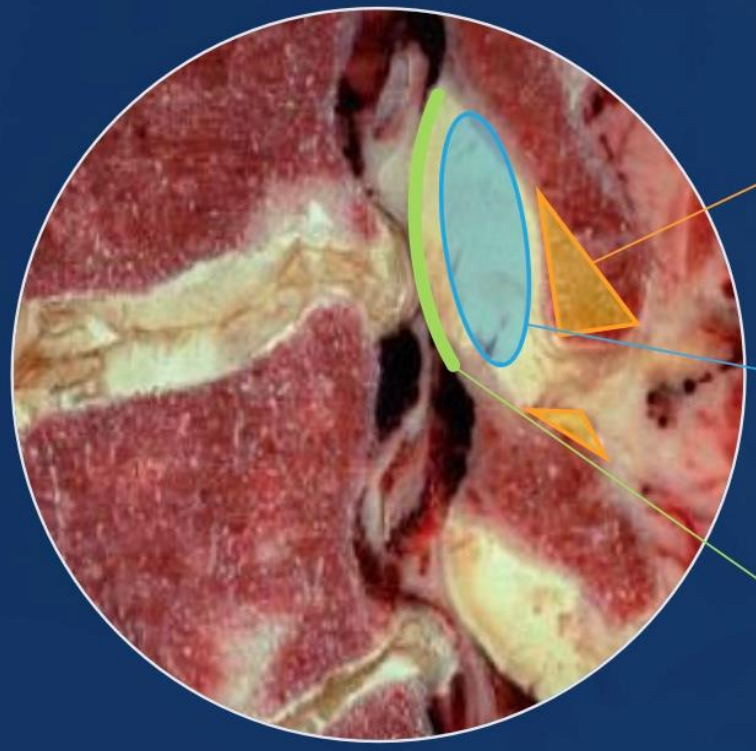


Remove bone to achieve access



Debulk hypertrophic ligament

Remove instruments & close w/ Steri-strip



Laminotomy opens trajectory

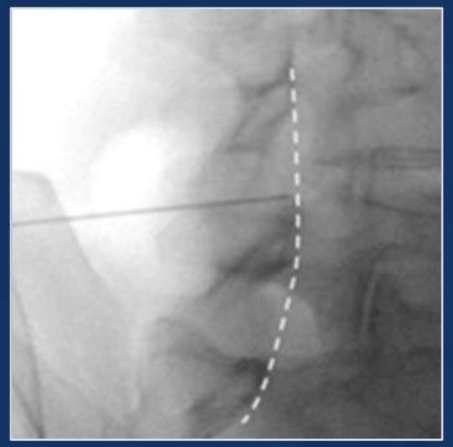
Dorsal collagenous tissue debulked

Healthy ventral fibers left intact

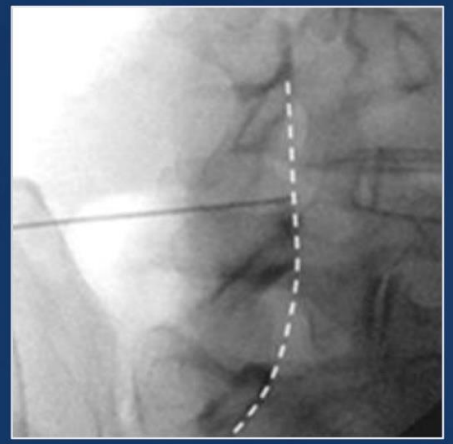
Needle Positions in CLO

Objective
Create / Identify Safety Barrier

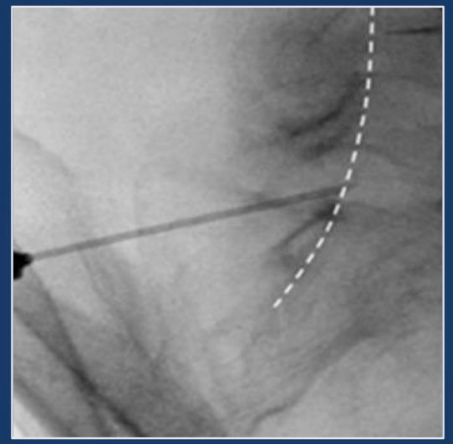
White dotted line is the Ventral Interlaminar Line (VILL)



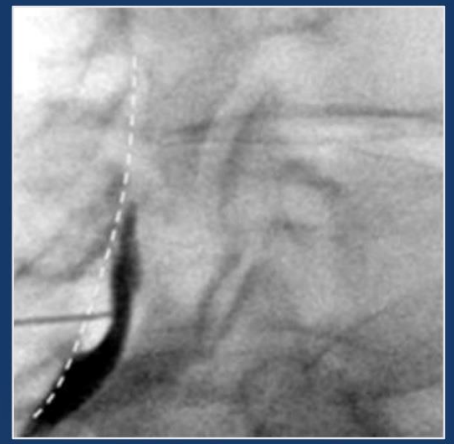
Needle is just before VILL



Needle is at VILL



Needle is just past VILL



Needle is further past VILL to access epidural space due to HLF

AP View

Midline horizontal incision
at lowest level of spinous process

Turgor tissue to place Trocar Portal
ipsilateral to treatment area,
hugging the spinous process

Dock Trocar Portal on posterior half of superior surface of inferior lamina

CLO View

Trajectory of Trocar Portal should mimic angle of inferior lamina's superior surface

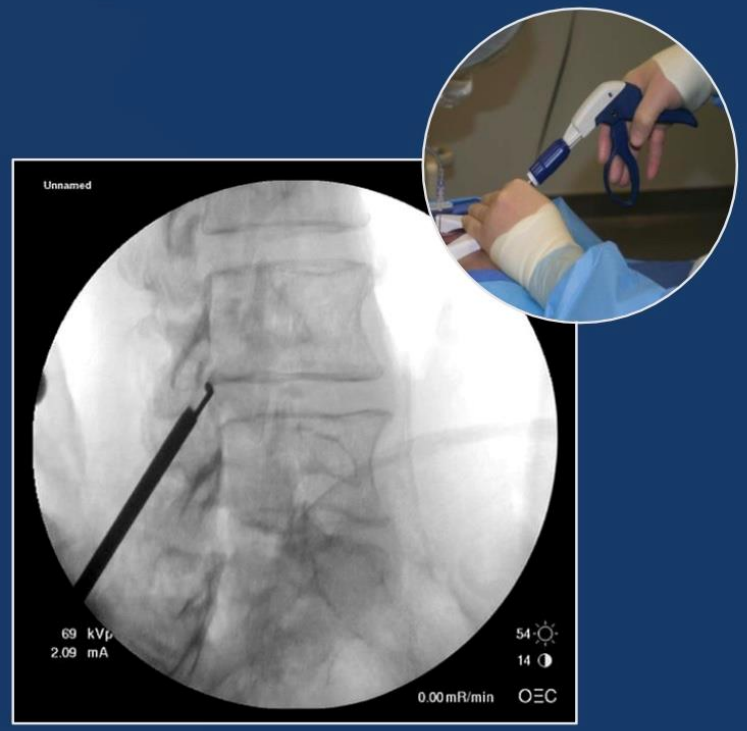
Objective

Remove bone & ligament

Rotate Bone Rongeur 360° to remove bone from both inferior & superior laminae

One bite per pass before cleaning instrument

Inferior lamina



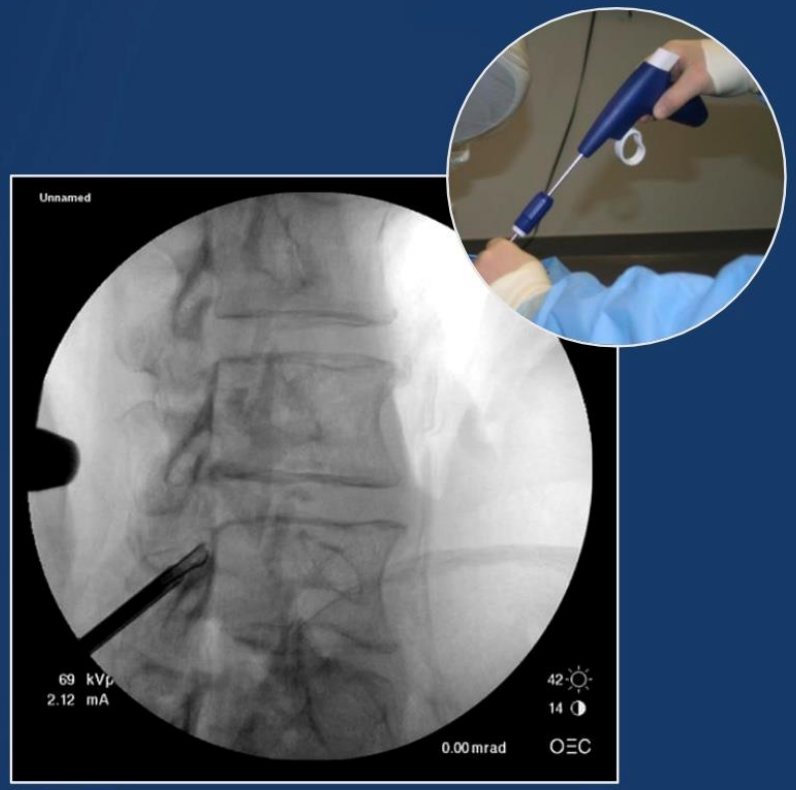
Superior lamina

Objective

Remove ligament

Tissue Sculpter designed to scoop, cut, & capture tissue

3 bites per pass before cleaning instrument



CLO View

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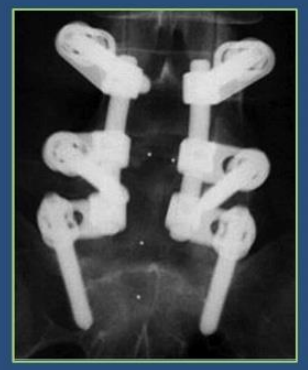
Hemilaminectomy

Intrathecal Pump

Device / Hardware

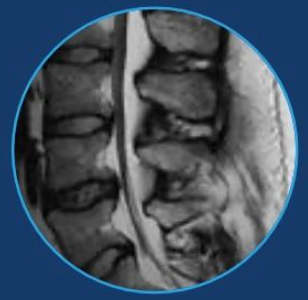


Device / Hardware

Spondylolisthesis

Synovial Cyst

Global Rotation



Epidural Lipomatosis

Vertos MEDICAL

Post-Op

Patient typically recover within
24 hours
with no restrictions[1]

Reconditioning Program

At-home conditioning can be initiated immediately, as tolerated

Follow-up Visits

Assess outcomes at 2-weeks & 4-6 weeks, then monthly