Endoscopic Laser Spine Surgery
California Spine Institute Medical Center, Inc

“Welcome”

“Guten Tag!”

你好
Kinh Môi
“Bonjour”
“Buenos Días”

“Konnichiwa”

Calif. Center for Minimally Invasive Spine Surgery

spinecenter.com
Endo-Miss Case Illustration:
Extremely large extruded/herniated lumbar disc

• 45 year old male firefighter for Anchorage Alaska Fire and Rescue
• Suffered from an extremely large L4-5 paracentral extruded disc, extending upward measuring 18 mm x 10 mm towards the left, neuro foramen and also towards the right
• Extensive microdecompressive lumbar L4-5 laminectomy, exploration and meticulous removal of the sequestrated disc fragment gave him immediate excellent relief of his neurological symptoms
• Incidentally adjoining L4 – L5 vertebra showed prior post laser thermodiskoplasty - subchondral vertebral/bone marrow asymptomatic changes/artifact
Case Illustration:

English rock star had endoscopic cervical discectomy C3-4 with hypoplastic odontoid and C3-4 disc herniation
Case Illustration:
Endoscopic Thoracic MISS for F-22 Fighter Pilot

27yr old F-22 fighter pilot suffered severe T7 herniated disc symptoms as a result of tremendous G-Force
MISS for Dwarf:

- 46 year old female dwarf (LPA) professional suffered post traumatic severe lumbar disc herniation in spite of conservative treatment
- Outpatient endoscopic MISS micro decompressive lumbar discectomy (requiring smaller spinal instruments) provided excellent immediate relief of symptoms

MRI findings
One hour post endoscopic MISS
Intraoperative fluoroscopic view
One day post endoscopic MISS
MISS Case Illustration:

- 35 year old male professional musician with increasing intractable neck and upper extremity pain and numbness of fingers, unable to perform
- AECM and left C5-6 foraminal decompressive discectomy and foraminoplasty in less than one hour, gave immediate relief of all symptoms. Discharged one hour post-op

Pre operative MRI scans - Large foraminal herniated C5-6 disc compressing C6 nerve root
MISS for Athlete Naturalist/Mountain Climber

Not a candidate for open spine surgery

Chinese Himalayan Mountain Climber, 3 week prior to expedition, after MISS, Mt. Everest 6x, K-2 5x, Himalayan 100x

Naturalist/Photographer

Large lumbar disc material
MISS for Medically Difficult Patients:

Multiple level herniated lumbar discs - “not a candidate for open spine surgery”

- Morbid Obesity
  - 48 year old male, 450 lbs patient one hour after his L2, L3, L4 discectomy
  - Patient was turned down for herniated lumbar disc surgery by a spine surgeon due to his morbid obesity
Endo-MISS Case Illustration:

81 yo NS Professor underwent endoscopic cervical discectomy developed transient extreme bradycardia (30) detected and monitored on the large intra-op screen and treated with atropine. Discharged on hour later
Endo-MISS Case Illustration:
Endo-Miss Case Illustration:

26 yo “Extreme Athlete”, Motorcycle, Rally car X-games gold medalist
Severe posttraumatic L4-5 disc herniation
Excellent relief from outpatient endoscopic MISS
Return to rally car racing in two weeks
Illustration
Decompression of Lateral Lumbar Stenosis

Bilateral decompression of lateral lumbar stenosis gives complete relief of severe neurogenic claudication
LUMBAR INTERSPINOUS PROCESS/LAMINA SPACER (COFLEX-F) FIXATION

Treatment for Multiple Level Lumbar Spinal Stenosis with Minimally Invasive Spinal Decompression, Coflex-F Fixation, and Lumbar Facet Fusion

- 3 level lumbar stenosis caused by:
  - Disc herniation
  - Anterior offset of L4 over L5 hypertrophy of the ligamentum flavum
  - Neuro-foraminal stenosis

- Successfully treated with MISS microdecompression Coflex-F interspinous spacer/fixation & lumbar facet fusion with relief of neurogenic claudication & correction of stooped posture

59 year old office manager with severe L2-3, L3-4 & L4-5 lumbar stenosis, stooped posture & neurogenic claudication relieved by MISS, Coflex-F fixation & lumbar facet fusion
Severe lumbar stenosis

- 73 yo with severe rapid progressive (in 6 mos.) neurogenic claudication, leaning on grocery cart syndrome
- Successfully treated with microdecompressive discectomy and interspinous spacer Coflex-f with facet fusion
- Able to stand and walk unassisted and straight
Spinal Pain from Osteopetrosis
treated with Laser neurectomy/rhizotony

- Osteopetrosis, "stone bone" extremely rare
- Known as marble bone disease
- Inherited disorder, bones become denser due to Osteoclast dysfunction and reduced bone breakdown, causing failure of bone resorption and Excessive bone formation
- Symptoms:
  - Bones are more brittle and increased likelihood of fractures
  - Suffering from Anemia, even infections
  - Bone pain and nerve Pain

Case Illustration:
- 21 year old college student born with Osteopetrosis multiple incidents of fractures and sprain of joints from ordinary daily activities i.e. skating and running, and painful joints often requiring chiropractic treatments
- After a chiropractic treatment of manipulation which precipitated a severe thoracolumbar joint/facet joint and spinal ligament L2-L3 pain which became disruptive to his study and daily life
Spinal Pain from Osteopetrosis treated with Laser neurectomy/rhizotomy

- Spinal symptoms intractable to physiotherapy and medication
- Bilateral T12 L1 facet nerve blocks and trigger point injection of L2-L3 intraspinal ligament gave her repeated symptomatic relief
- Endoscopic laser thermo rhizotomy of the medial branch nerve of posterior rami of spinal nerve of T12 & L1 facet joint under local anesthesia gave her excellent relief of her T-L pain
Endo-Miss Case Illustration:

- 48 years old female
- Neck pain radiating to left arm
- Left triceps motor weakness
An Obvious MISS Case for Illustration:

- 73 year old actively practicing neurosurgeon suffering from rapid, progressive, severe and intractable back and left leg pain
- MRI Scan: Sag T2 L-spine and axial views revealed a large partially extruded L5-S1 disc at left lateral recess
- Symptomatic relief after transpinal L5-S1 microdecompressive discectomy
Hope you enjoyed this presentation!

“Thank You”

Danke schön

Thank you

Merci

Дякую!

“Arigato”

안녕히 계세요.

“Cámón”

“Gracias”

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