

AMPLIFY surgical

The 3rd Annual Endoscopic Spine Symposium (DualPortal & dualX)



Thoracic Laminectomy & Transforaminal Interbody Fusion

Unilateral Biportal Endoscopic Posterolateral approach



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Biportal Endoscopic Posterior Thoracic Laminectomy

10

Neurospine

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Biportal Endoscopic Posterior Thoracic Laminectomy for Thoracic Spondylotic Myelopathy Caused by Ossification of the Ligamentum Flavum: Technical Developments and Outcomes

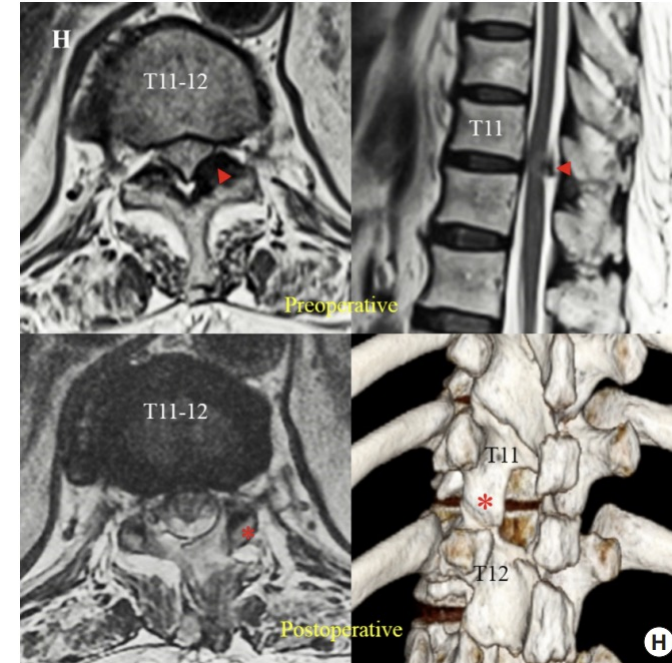
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Su Yong Choi¹, Choon Keun Park⁵

No touch the dura

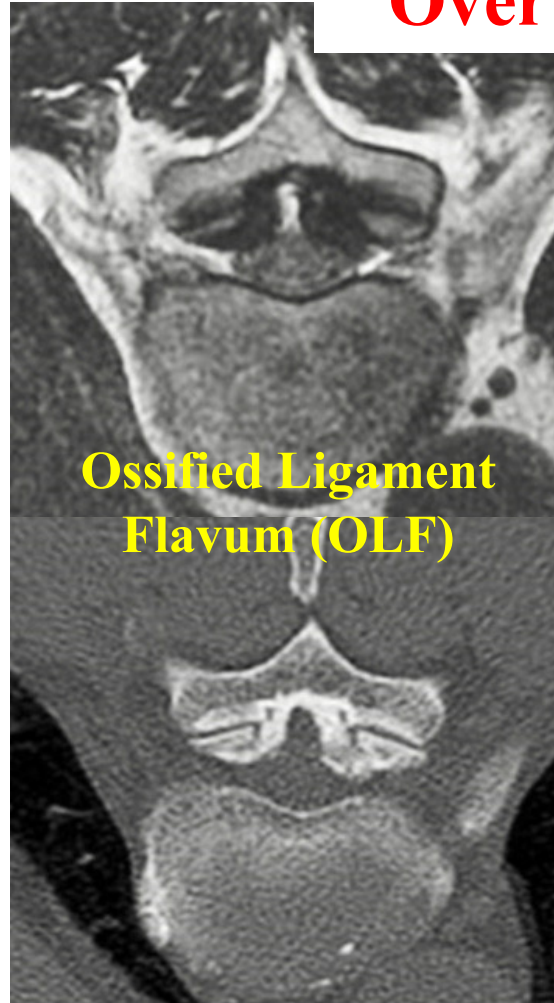
Conclusion: T1
option to treat
decompression

Over the Top Decompression

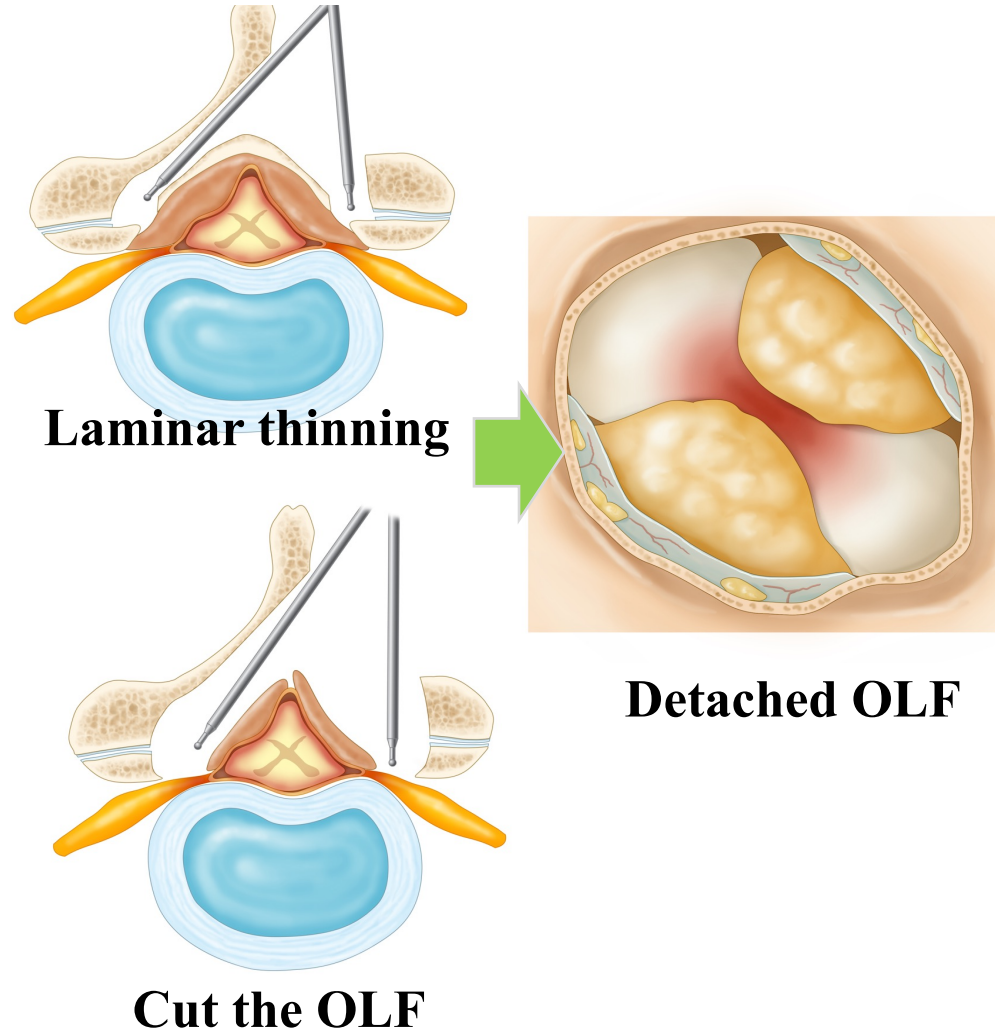
stages. Outside-in decompression is more efficient and safer than inside-out pattern procedures by minimizing dural manipulation. Nonetheless, this technique is technically demanding and should only be performed in selected patients after acquiring abundant experience with endoscopic spine surgeries.



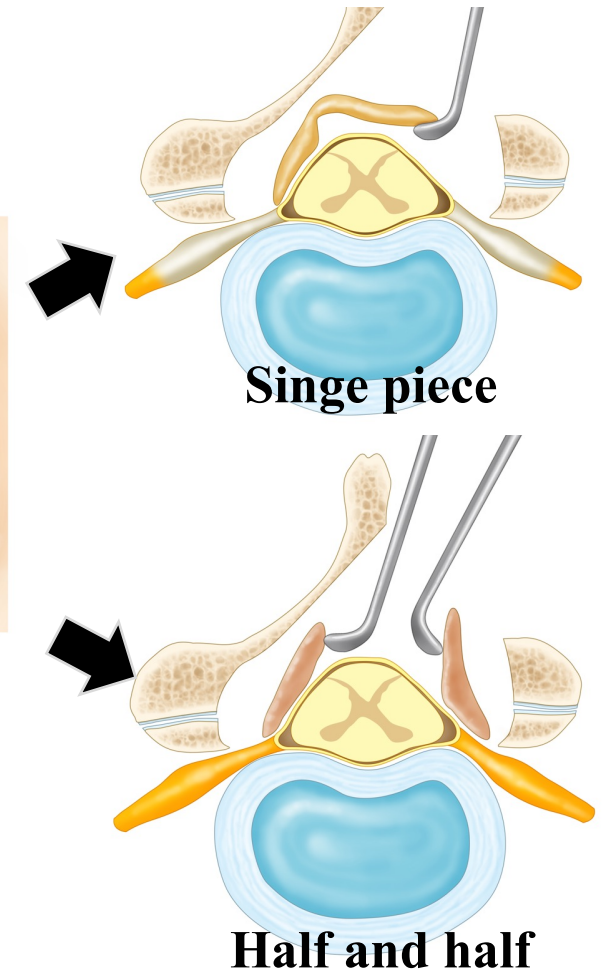
Over the Top & En bloc Removal techniques



Over the Top decompression

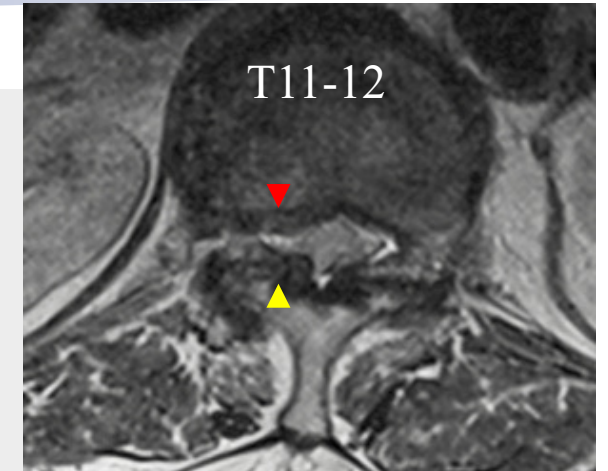


En bloc Removal



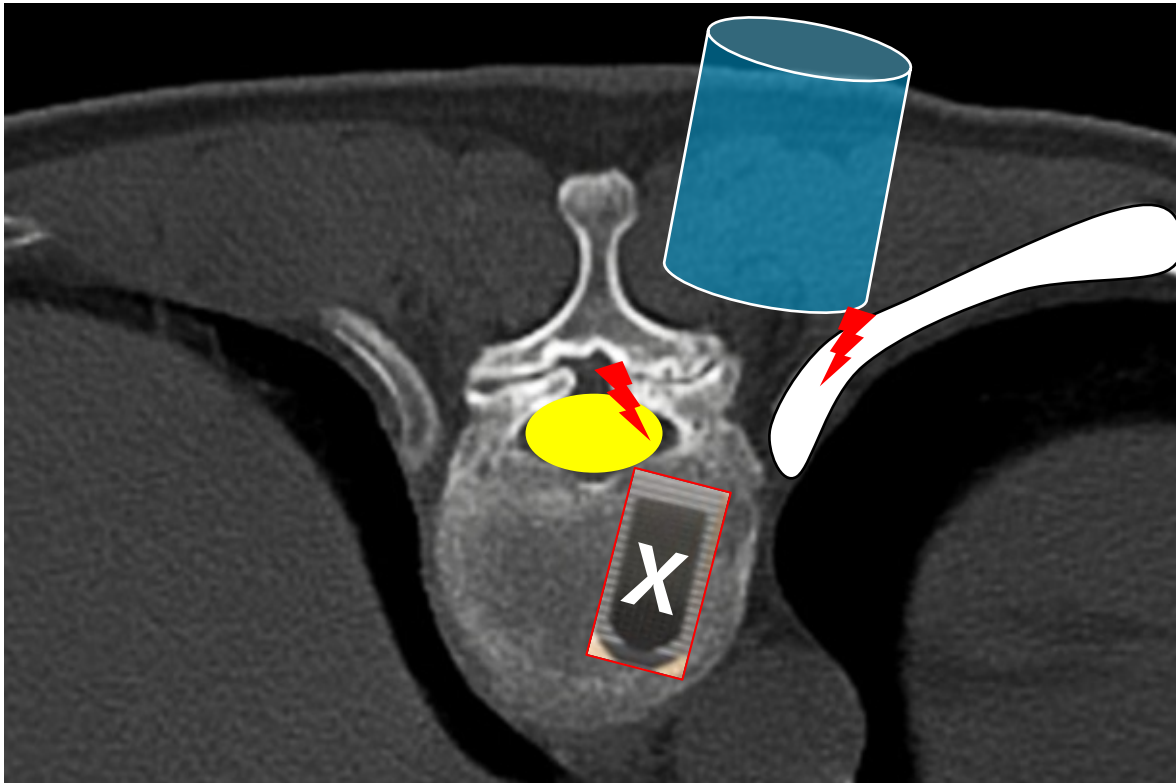
Consider Instrumentation (± Fusion)

- ✓ *Thoracolumbar junction levels (T11-12, T12-L1)*
- ✓ *Wide laminectomy and facetectomy*
 - ✓ Prominent ventral pathologies is combined with severe canal stenosis
 - ✓ Facet arthropathy and severe symptomatic foraminal stenosis
- ✓ High risk of *Delayed thoracic myelopathy* due to *postoperative kyphotic deformity*
 - ✓ *Adjust levels canal stenosis*
 - ✓ *Remained prominent ventral pathology: OPLL or calcified HNP*

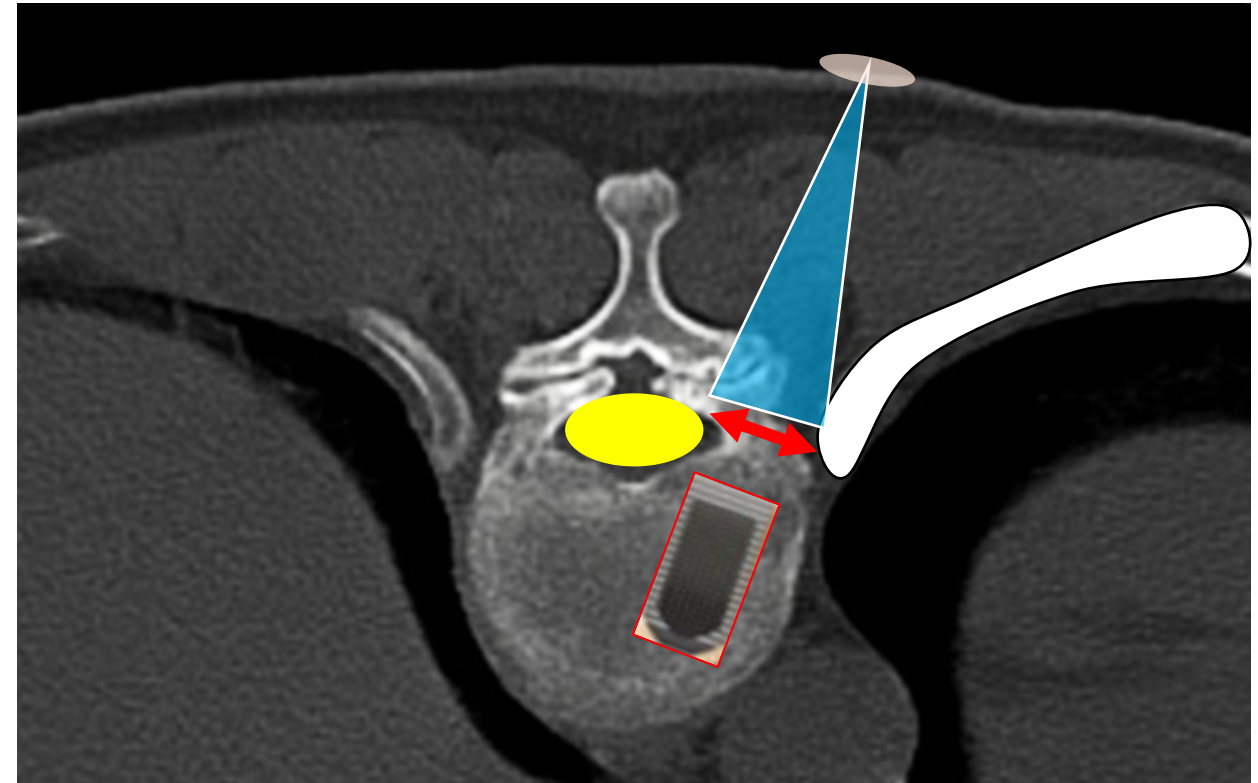


Advantages of the Biportal Endoscopic approach

Posterolateral approach

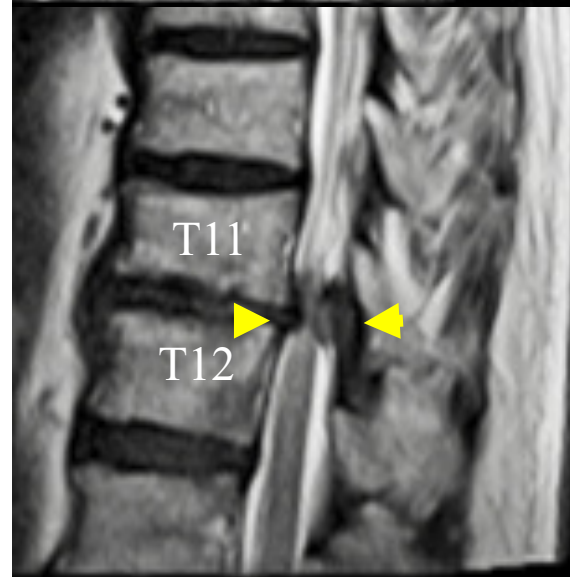
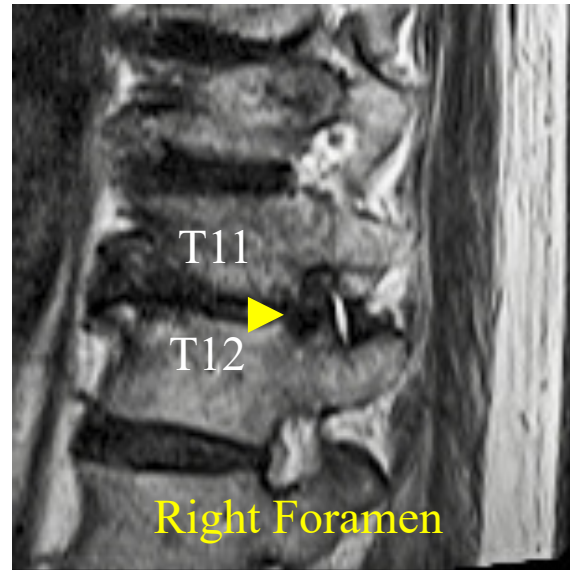
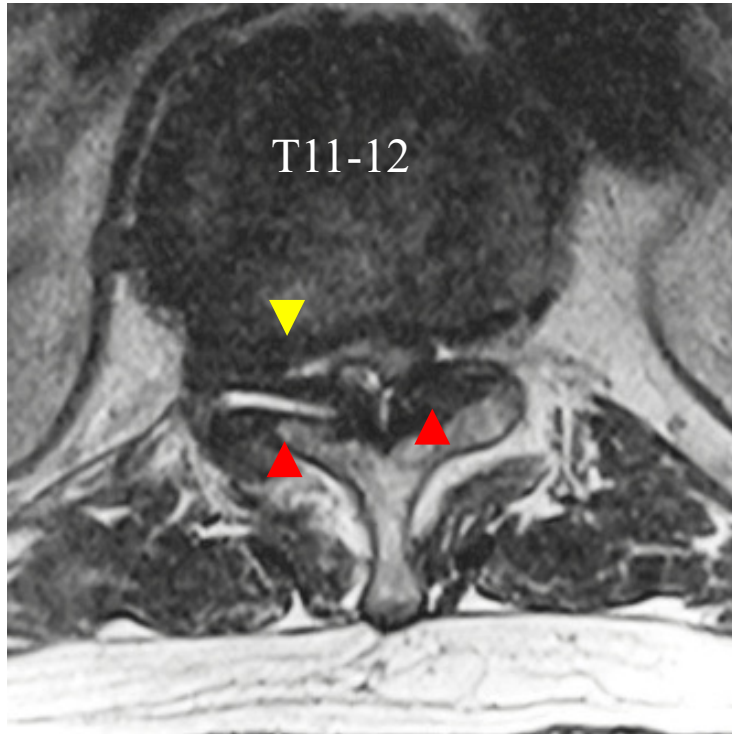


Conventional MIS



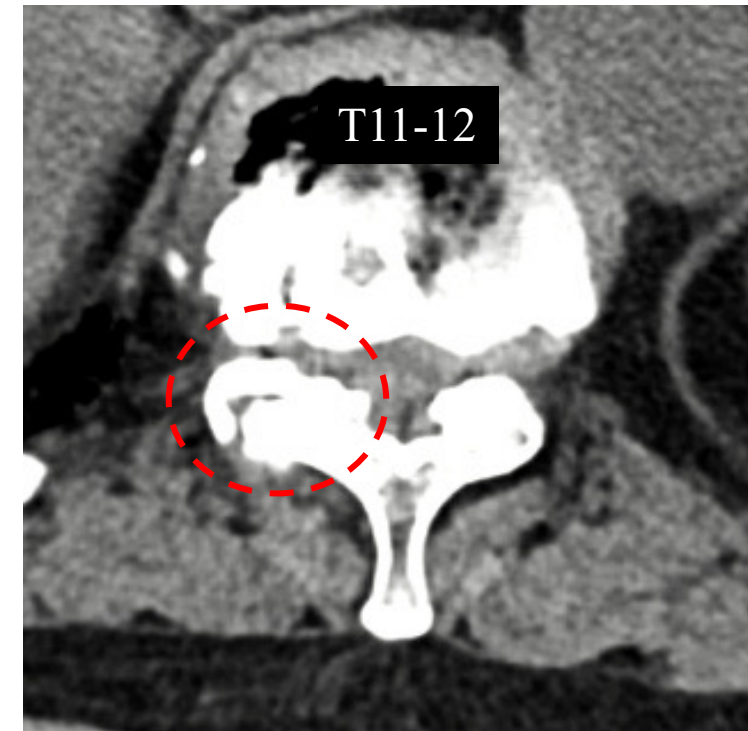
Biportal Endoscopy

Illustrated case



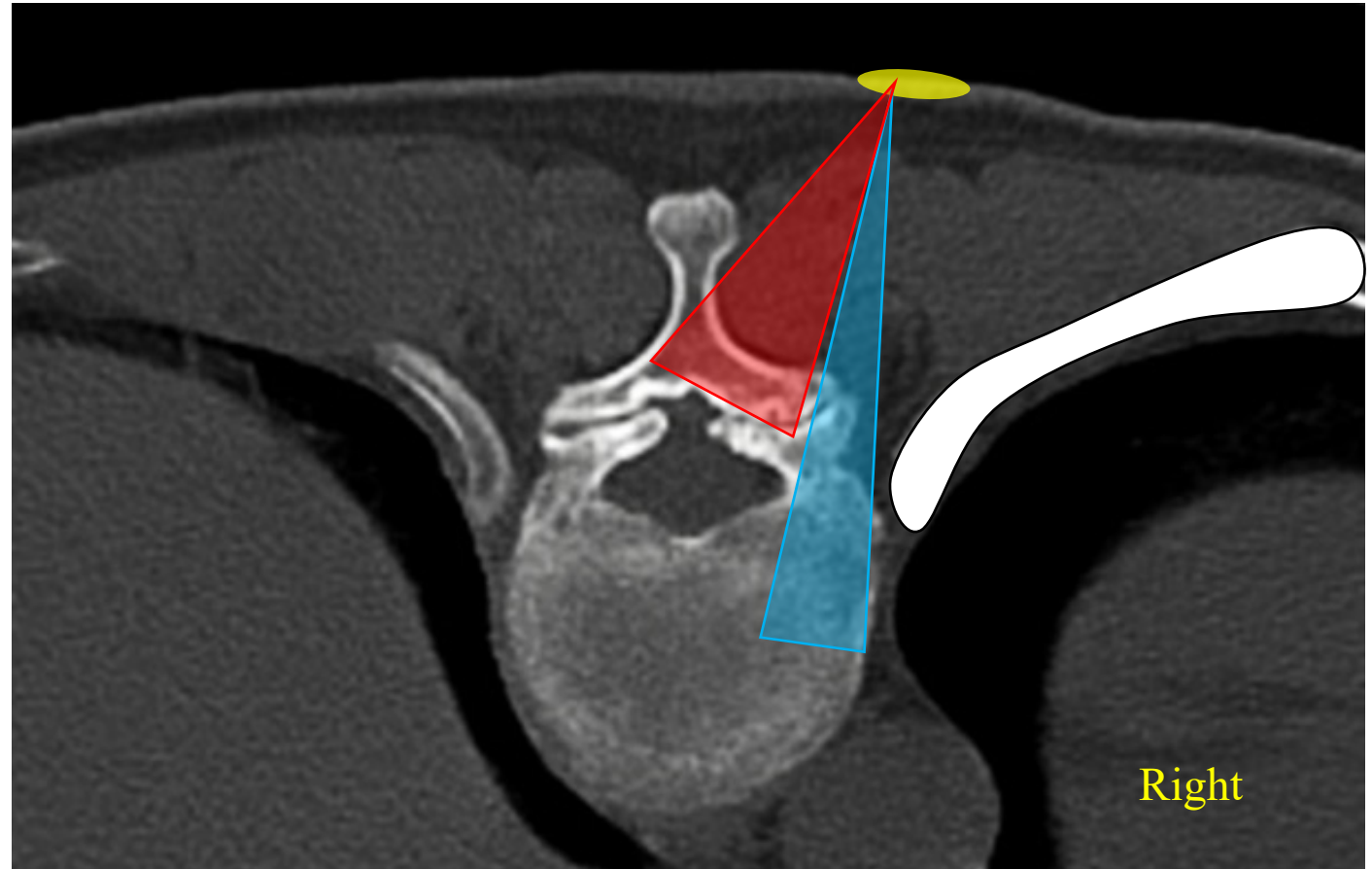
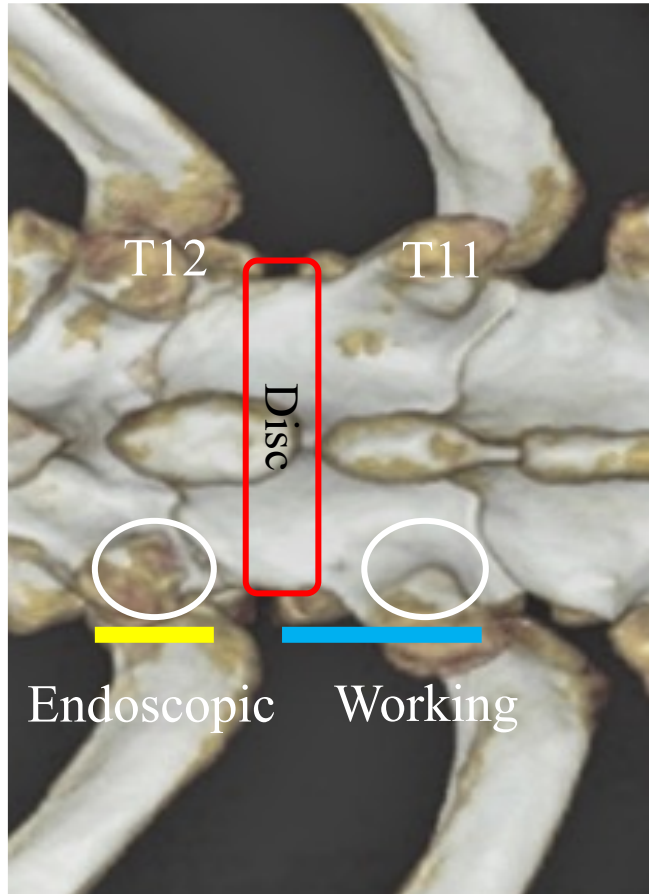
72 / M

Progressive myelopathy in both legs
Severe right flank pain



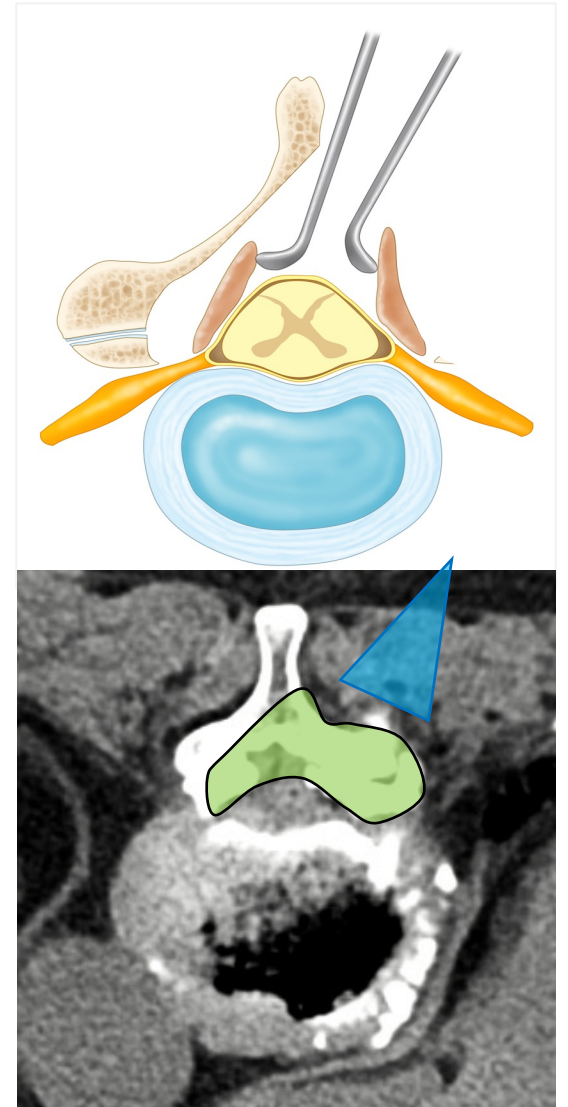
Skin entry for Decompression & Interbody Fusion

Biportal Endoscopic T11-12 right approach



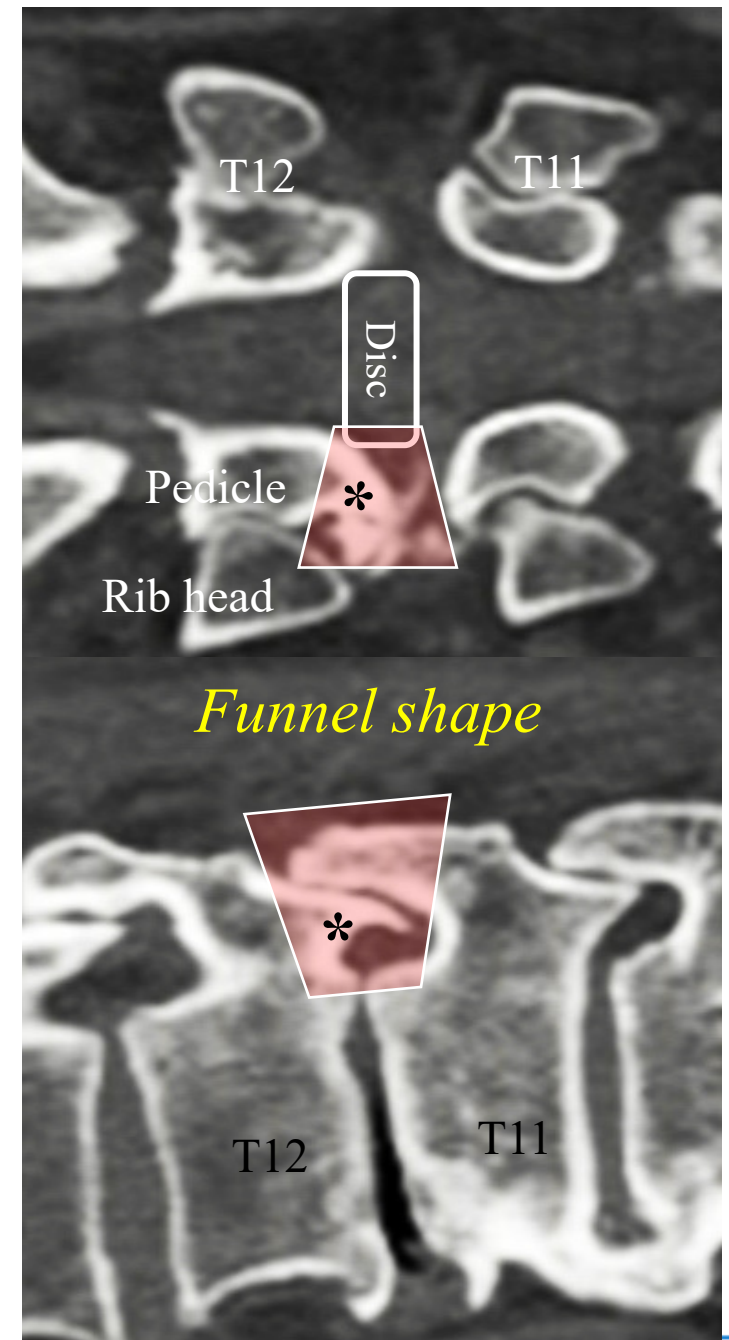
Over the Top Decompression

Biportal Endoscopic T11-12 right approach



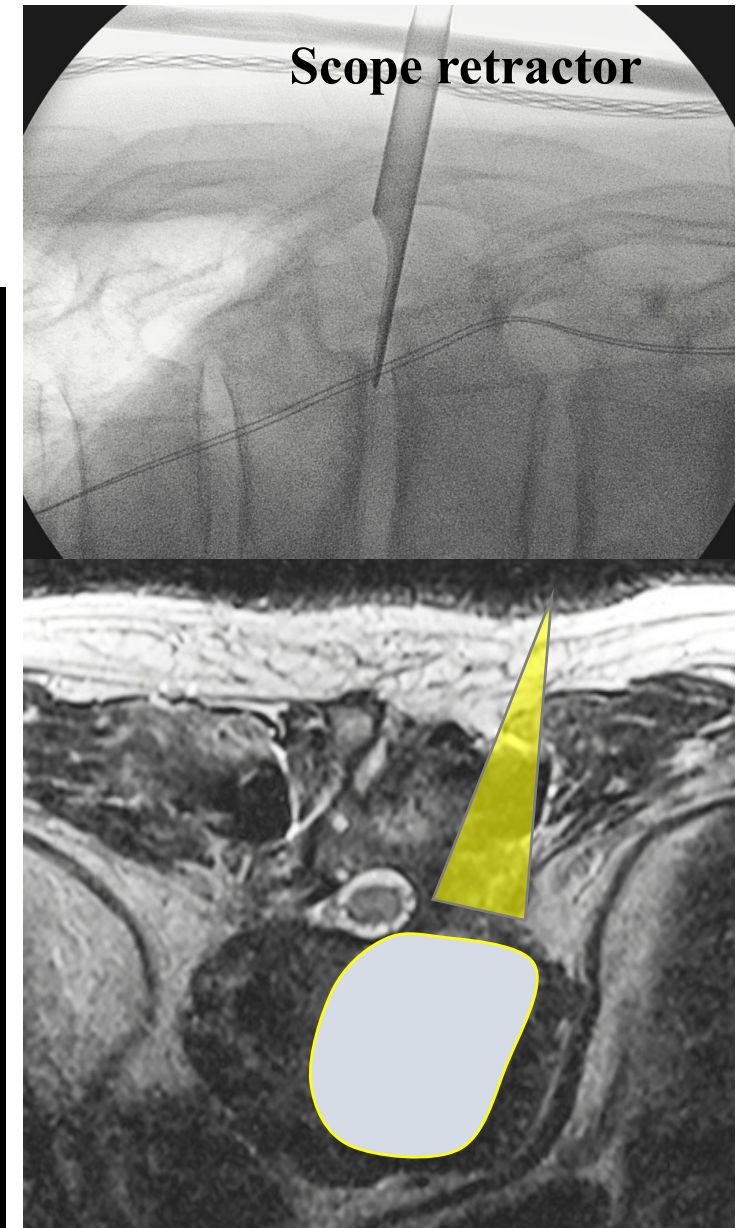
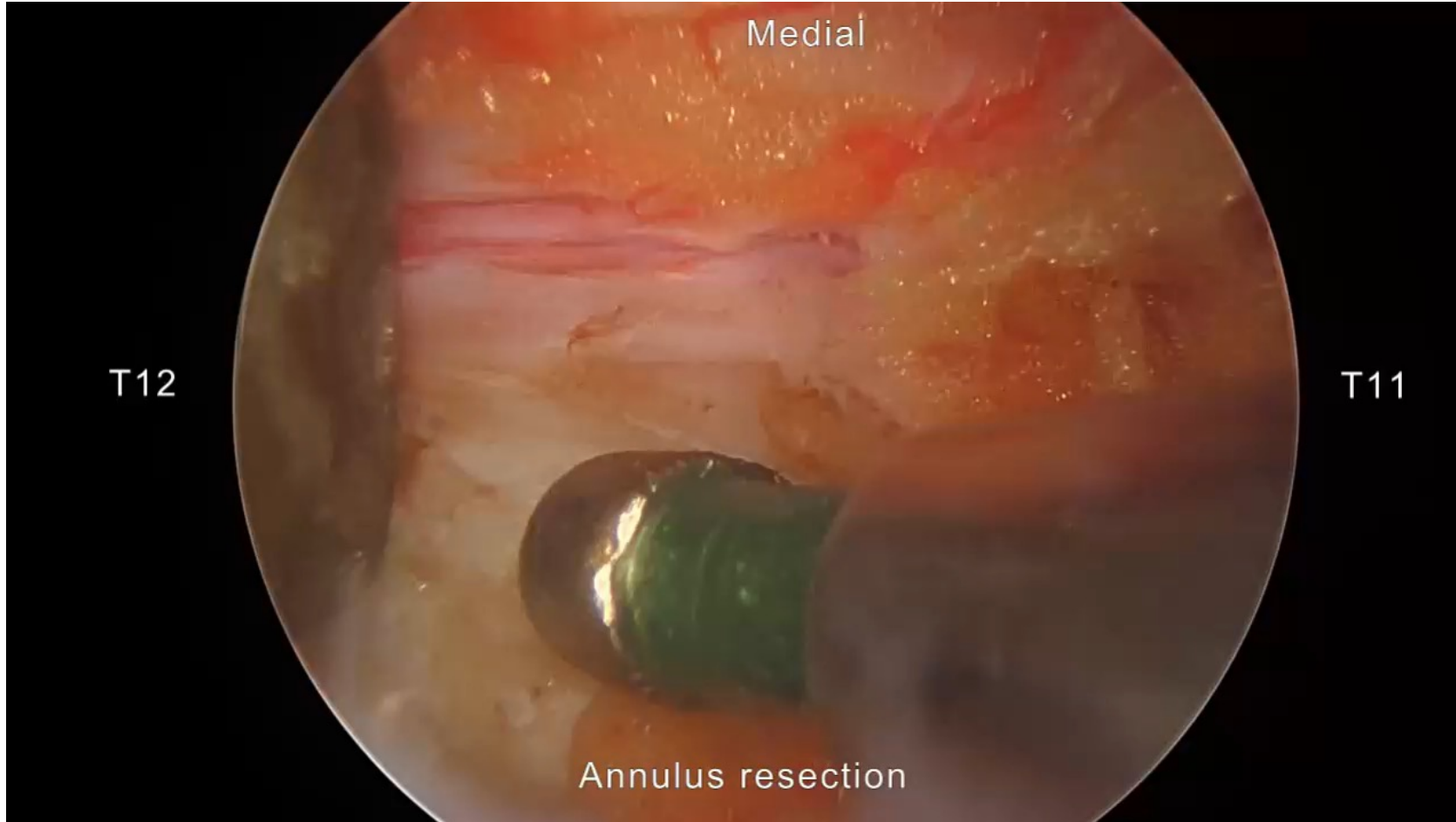
Total facetectomy & *Inclined pedicle drilling*

Expanding the foraminal space by *partial drilling of the pedicle*



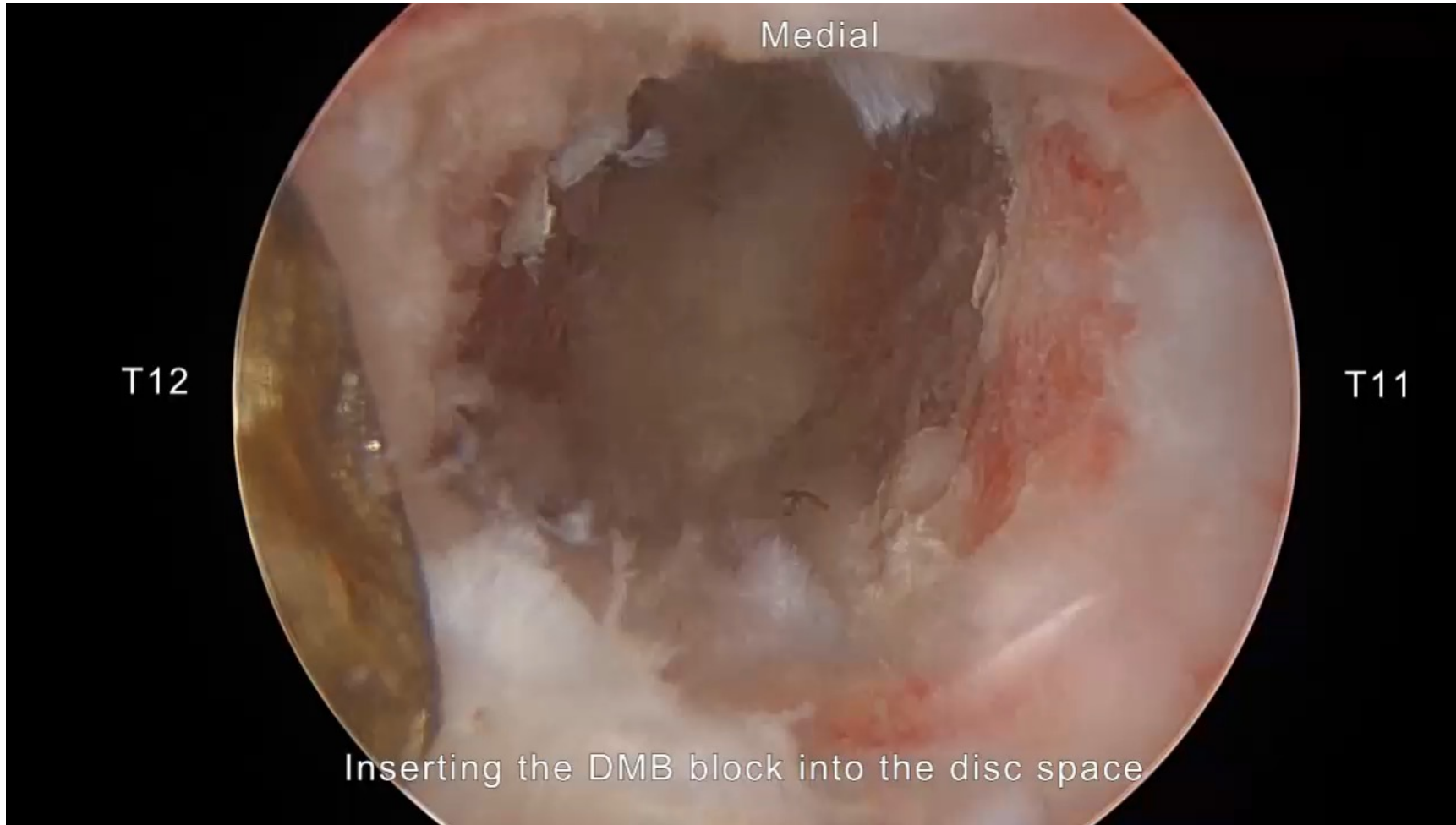
Endplate Preparation

Scope retractor protects the spinal cord *without retraction*

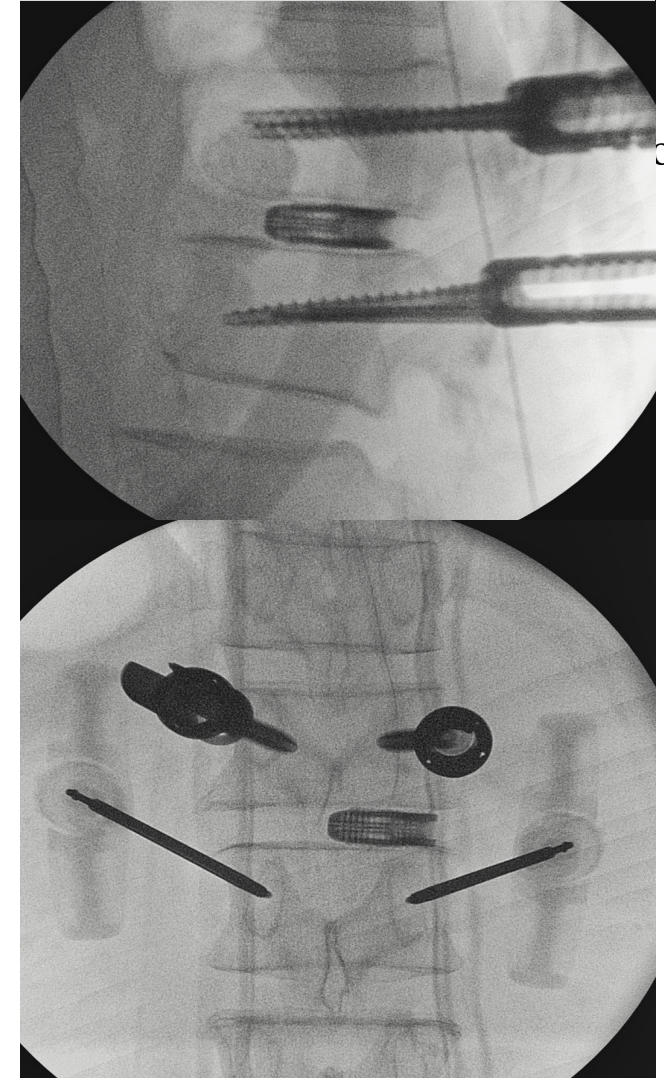


Cage Insertion & Instrumentation

Inserting the cage *without retracting the spinal cord*

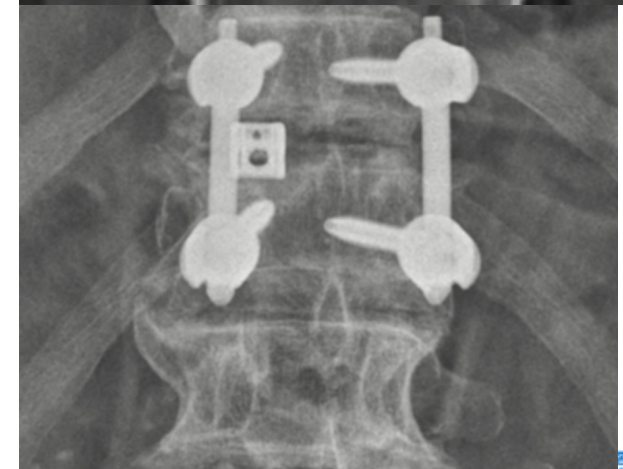
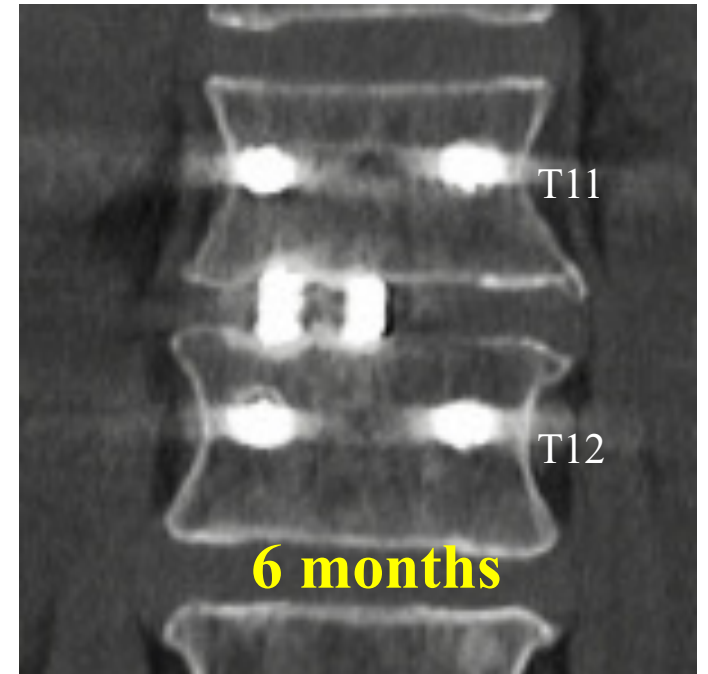
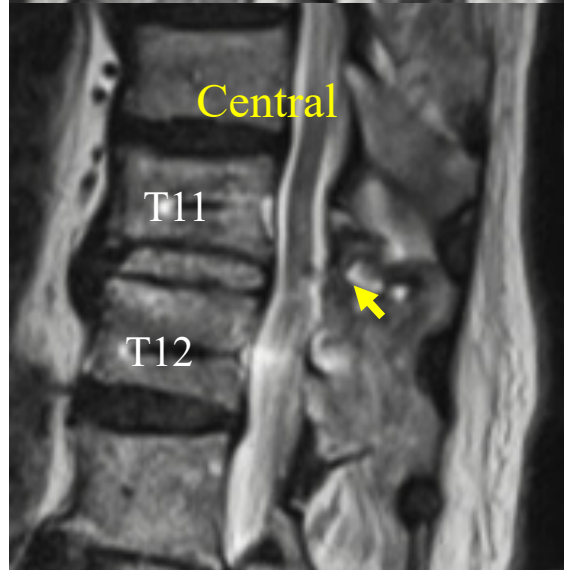
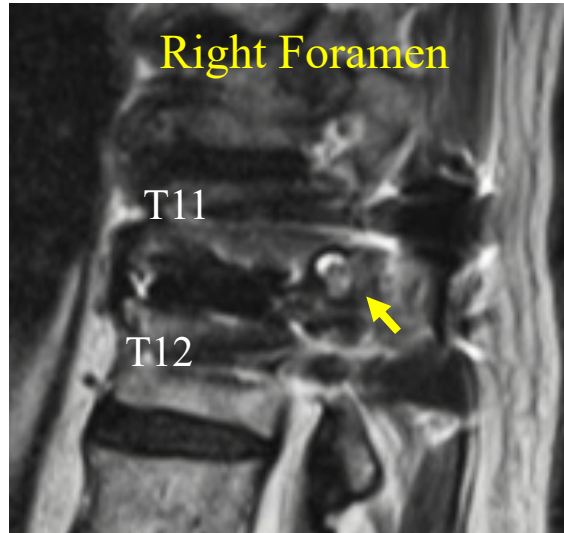
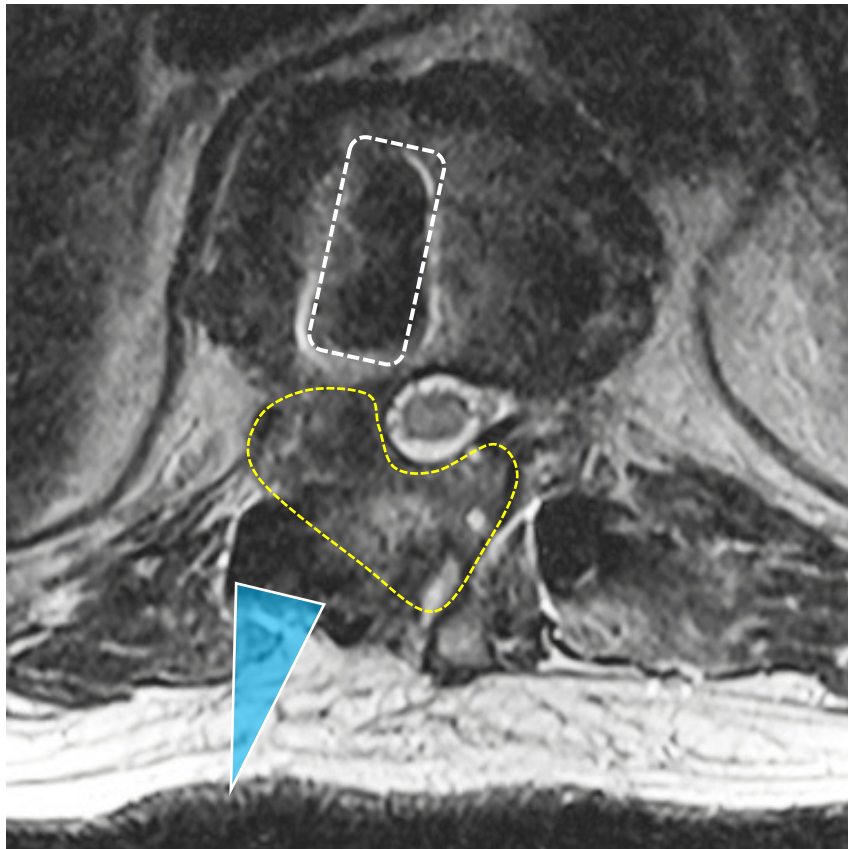


Percutaneous screw fixation



Result

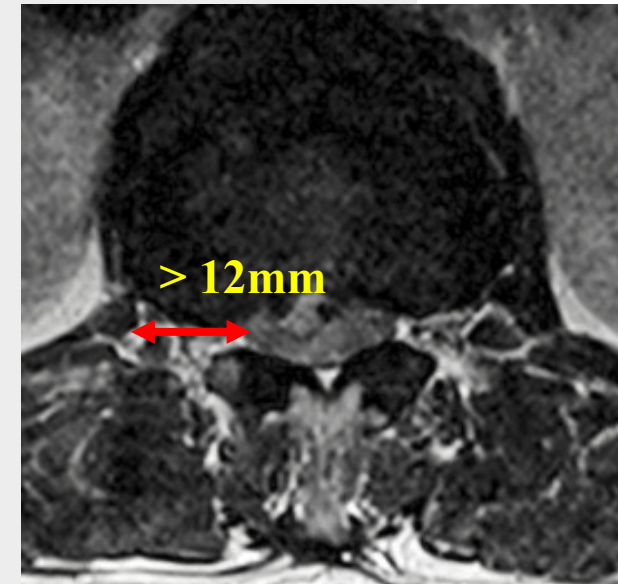
3 Months f/u
He can walk with assistance
Recovered urinary function



Message

Tips for endoscopic thoracic interbody fusion

- ✓ *Narrow indications for highly selective patients*
 - ✓ Prominent ventral pathologies (HNP, OPLL)
 - ✓ Severe facet arthropathy and foraminal pathologies
- ✓ *Thoracolumbar junction levels (T11-12, T12-L1)*
- ✓ Sufficient foraminal space after facetectomy and laminotomy > **12mm**
- ✓ Total facetectomy and partial caudal pediculotomy is critical for smooth cage insertion.





2022. 04. UBE textbook Ceremony

Thank you



2022. 10. NASS, Chicago, IL