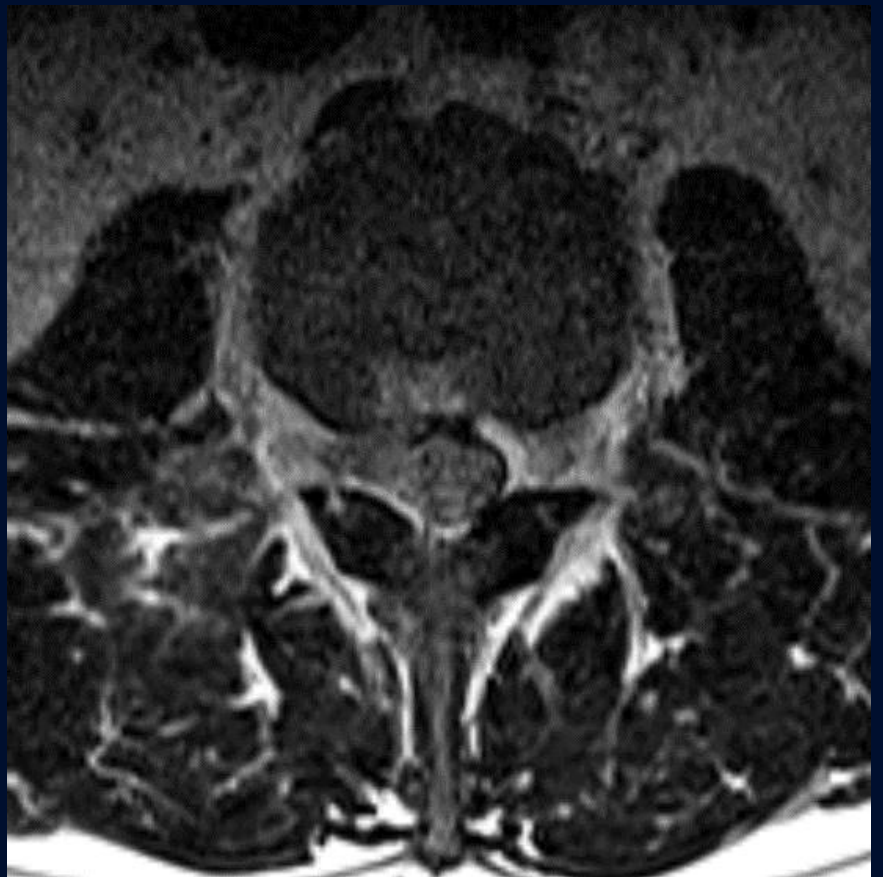
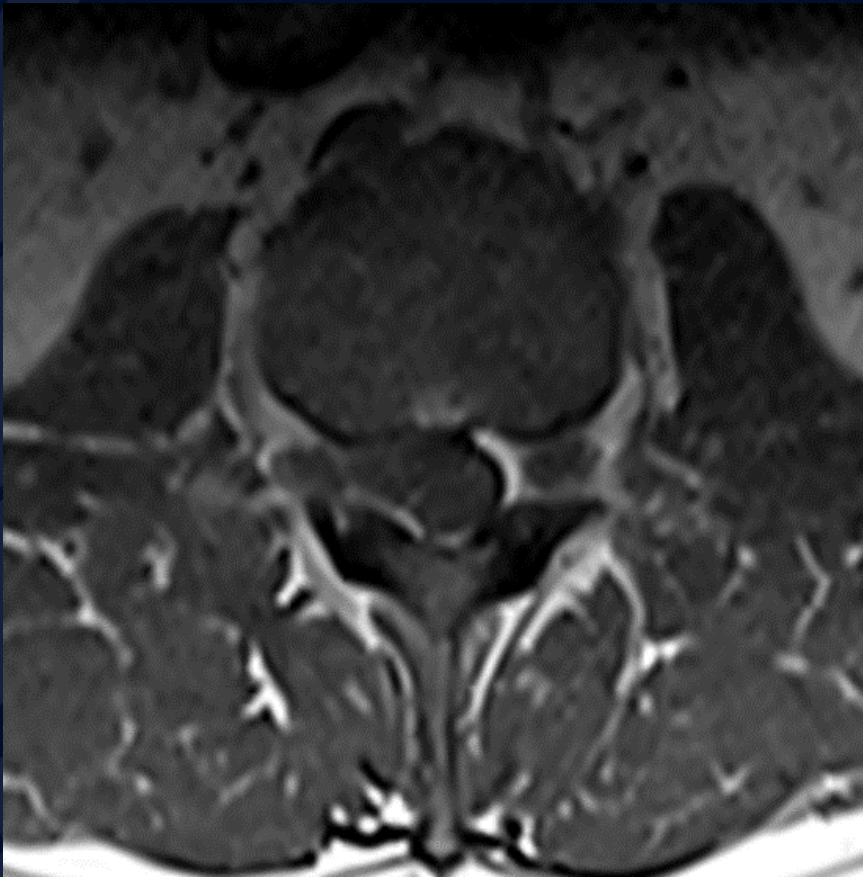


46 year old male with right lumbar
radiculopathy, now with new right
thigh sensory deficit.

Elena G. Violari MD
Leo Wolansky, MD





A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

?

Sequestered disc

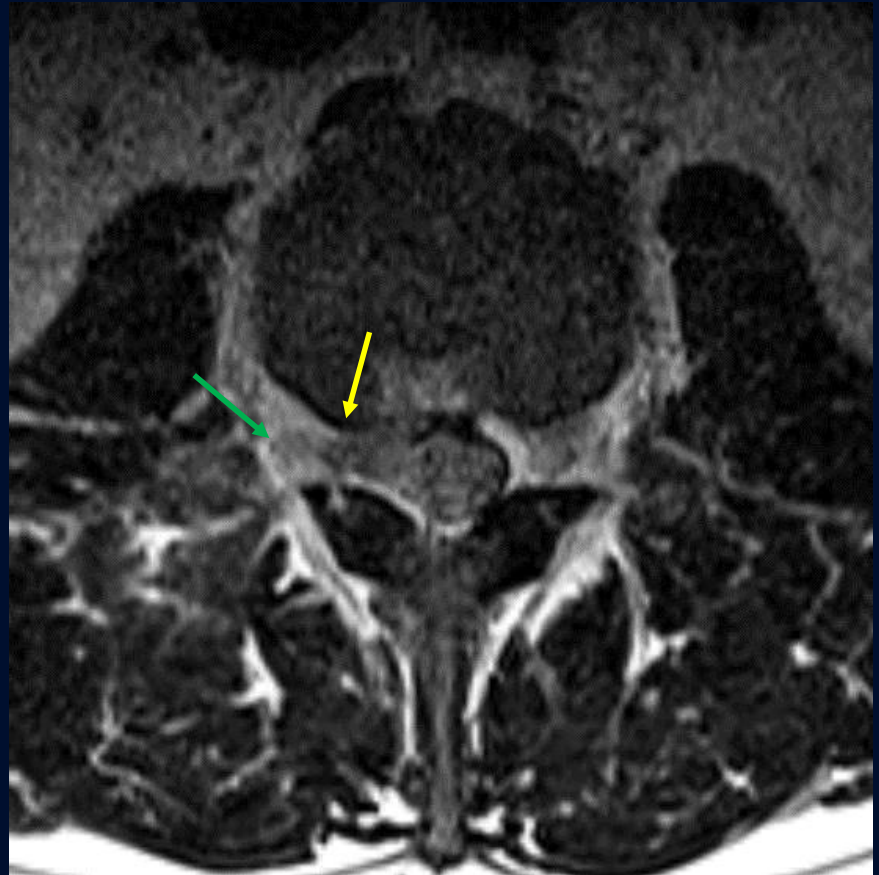
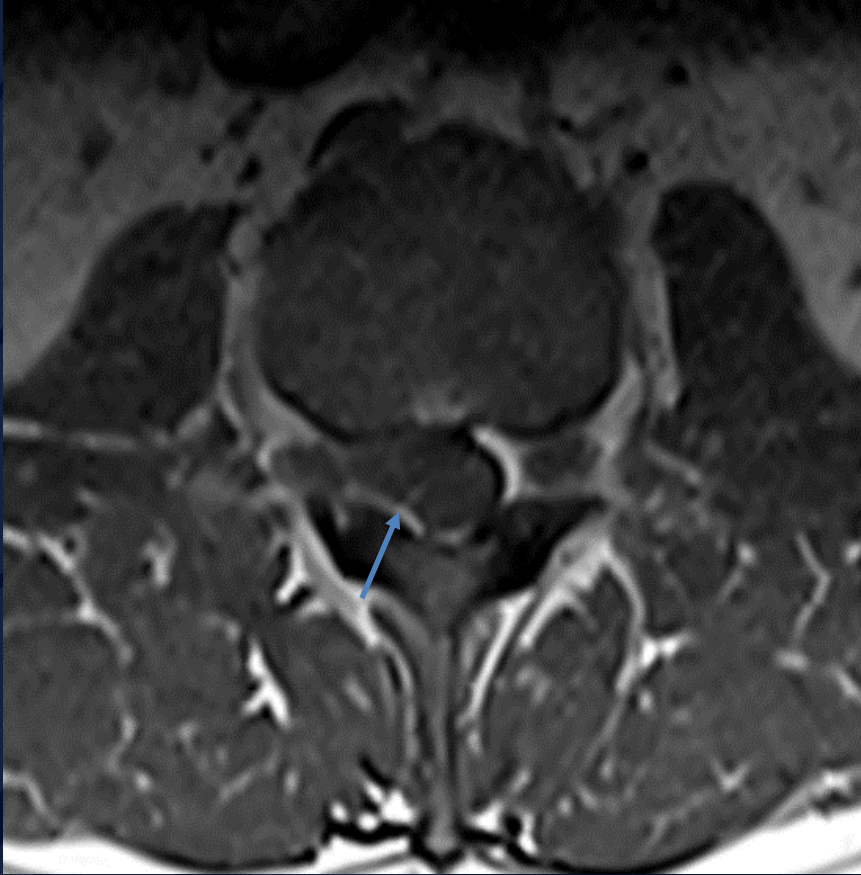


T2 weighted



STIR

Sagittal T2 weighted and STIR images demonstrate a large sequestered disc at the level of L2 measuring 19 mm cranio-caudal.



Axial T1 weighted image demonstrates right-sided dural sac deformity (blue arrow). The sequestered disc fragment abuts extends into the right neural foramen (yellow arrow) and compresses the exiting right L2 nerve root sleeve (green arrow).

Disc sequestration

Definition:

Sequestered disc corresponds to extruded disc material that has no continuity with the parent disc and is displaced away from the site of extrusion.

Etiology of disc herniations:

- Environmental factors (Heavy lifting, twisting, acute trauma etc)
- Age
- Poor posture
- Repetitive trauma
- Interruption of nutritional supply to disc
- Genetics

Disc sequestration

Epidemiology:

- 5-10% of all disc herniation

Clinical presentation:

- Severe radicular pain
 - More symptomatic compared to other disc herniations
 - Mass effect on exiting nerve root
 - Chemical irritation of nerve root
 - Lumbar: 25% sciatic and 75% femoral distribution

Disc sequestration

MRI findings:

- **T1WI:** Isointense to parent disc
- **T2WI:** Iso-, hypo-, or hyper-intense to parent disc
- **T1WI with contrast:**
 - May enhance peripherally
 - Variable extent of impingement on exiting nerve root
 - Contracted, displaced, flattened
 - Nerve root may show post-gadolinium enhancement
 - Extra-foraminal (far-lateral) component best seen on axials
 - May involve adjacent nerve root
 - Disc height loss
 - Degenerative endplate changes

Disc sequestration

Differential Diagnosis:

- Schwannoma:
 - Enlarged neural foramen due to chronic remodeling
 - Diffuse post-contrast enhancement
 - “Dumbbell” appearance on axial imaging
- Spinal nerve root diverticulum, meningeal cyst, Tarlov cyst
 - Cerebral spinal fluid intensity on all sequences
 - No enhancement

References:

1. Fardon DF, Williams AL, Dohring EJ et-al. Lumbar disc nomenclature: version 2.0: Recommendations of the combined task forces of the North American Spine Society, the American Society of Spine Radiology and the American Society of Neuroradiology. Spine J. 2014;14 (11):
2. Radiopedia
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4. Stat-dx