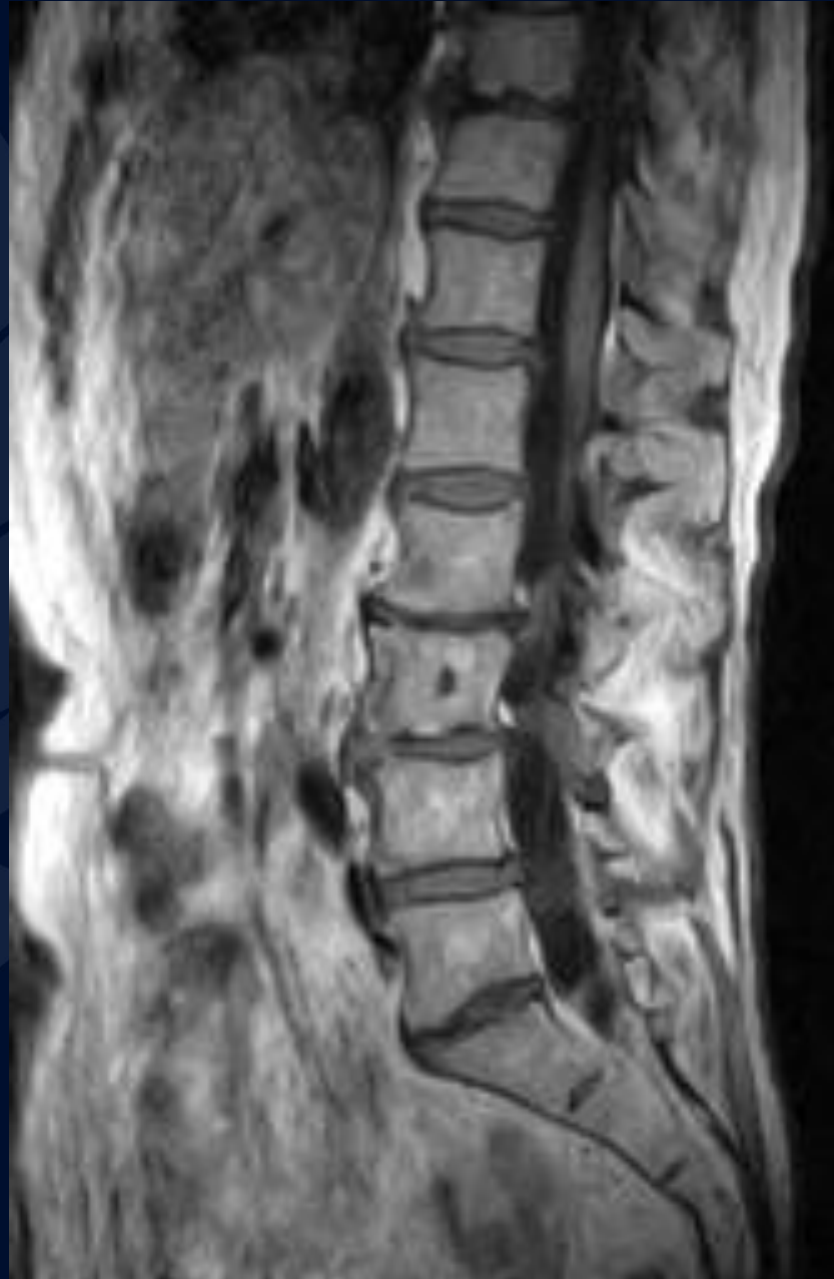


79 y/o female presenting with left L5 radiculopathy

Andrew Klufas, MD MBA
Leo Wolansky, MD

MR T1



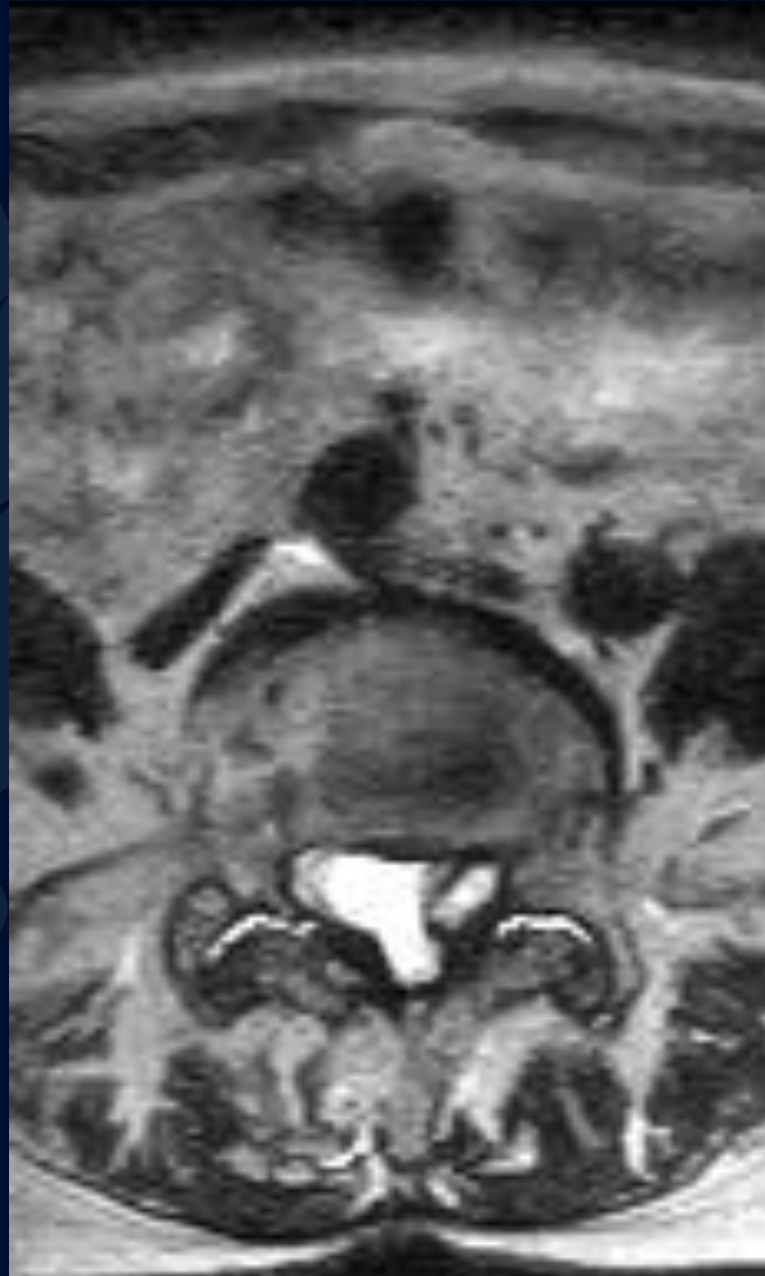
MR T2



MR T2



MR T1





?

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 background of the slide is a solid dark blue.

Synovial Cyst

T1



T2

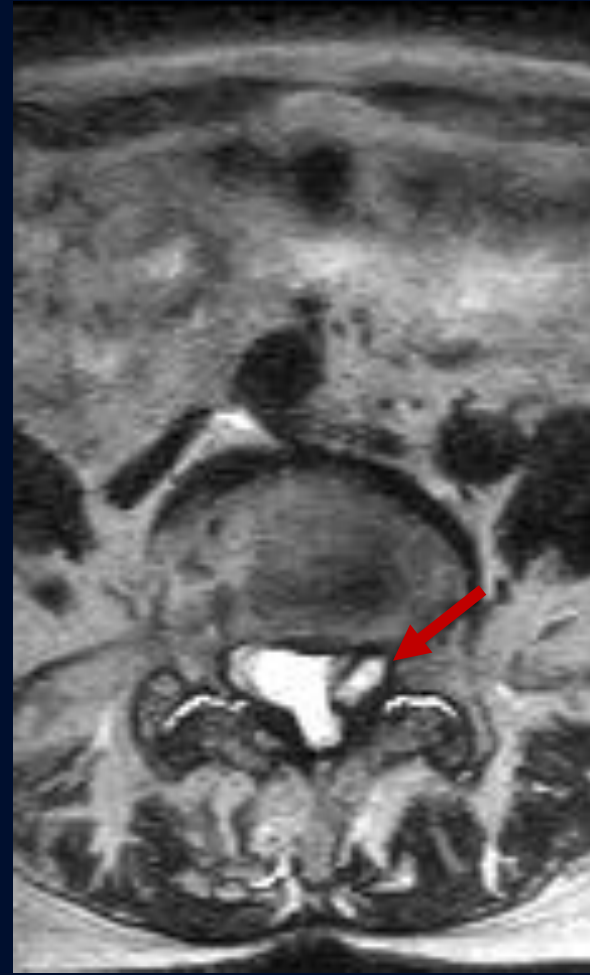


Rounded lesion at the level of L4-5 facet is isointense to muscle and disc on T1 sequence and hyperintense with hypointense rim on T2 sequence

T2



T2



Rounded lesion at the level of L4-5 facet is hyperintense with hypointense rim on T2 sequence

Spinal Synovial Cyst

Clinical Presentation:

- Can be asymptomatic, however may present with sciatica, lower extremity weakness, and sensory loss

Imaging Characteristics

- Predominantly in the lumbar spine > cervical or thoracic spine
- Gas within the cyst is pathognomonic for a synovial cyst
- MRI
 - T1: Hypo-intense in comparison to surrounding muscle and disc
 - T2: Hyper-intense lesion with hypointense rim
 - Hypo-intensity is due to hemosiderin deposition in the synovial capsule

Synovial Cyst Formation

- Spinal synovial cysts form around the facet joints
- Tend to form ventrally as the facet joint only has a capsule dorsally

References

Jindani I, Knipe H, El-Feky M, et al. Spinal synovial cyst. Reference article, Radiopaedia.org (Accessed on 25 Sep 2023) <https://doi.org/10.53347/rID-15192>

Khan AM, Girardi F. Spinal lumbar synovial cysts. Diagnosis and management challenge. *Eur Spine J.* 2006 Aug;15(8):1176-82. doi: 10.1007/s00586-005-0009-4. Epub 2006 Jan 27. PMID: 16440202; PMCID: PMC3233964.

Liu SS, Williams KD, Drayer BP, Spetzler RF, Sonntag VK. Synovial cysts of the lumbosacral spine: diagnosis by MR imaging. *AJR Am J Roentgenol.* 1990 Jan;154(1):163-6. doi: 10.2214/ajr.154.1.2104702. PMID: 2104702.

Bureau NJ, Kaplan PA, Dussault RG. Lumbar facet joint synovial cyst: percutaneous treatment with steroid injections and distention--clinical and imaging follow-up in 12 patients. *Radiology.* 2001 Oct;221(1):179-85. doi: 10.1148/radiol.2211010213. PMID: 11568337.