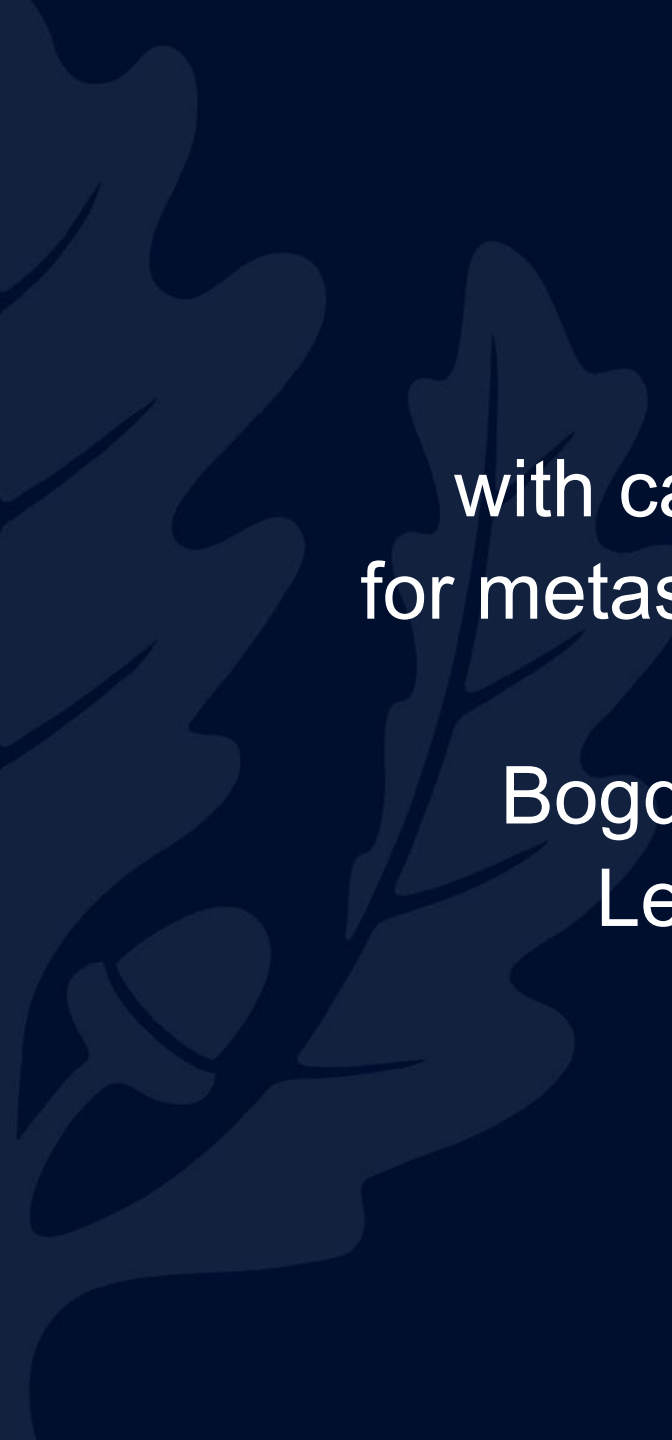
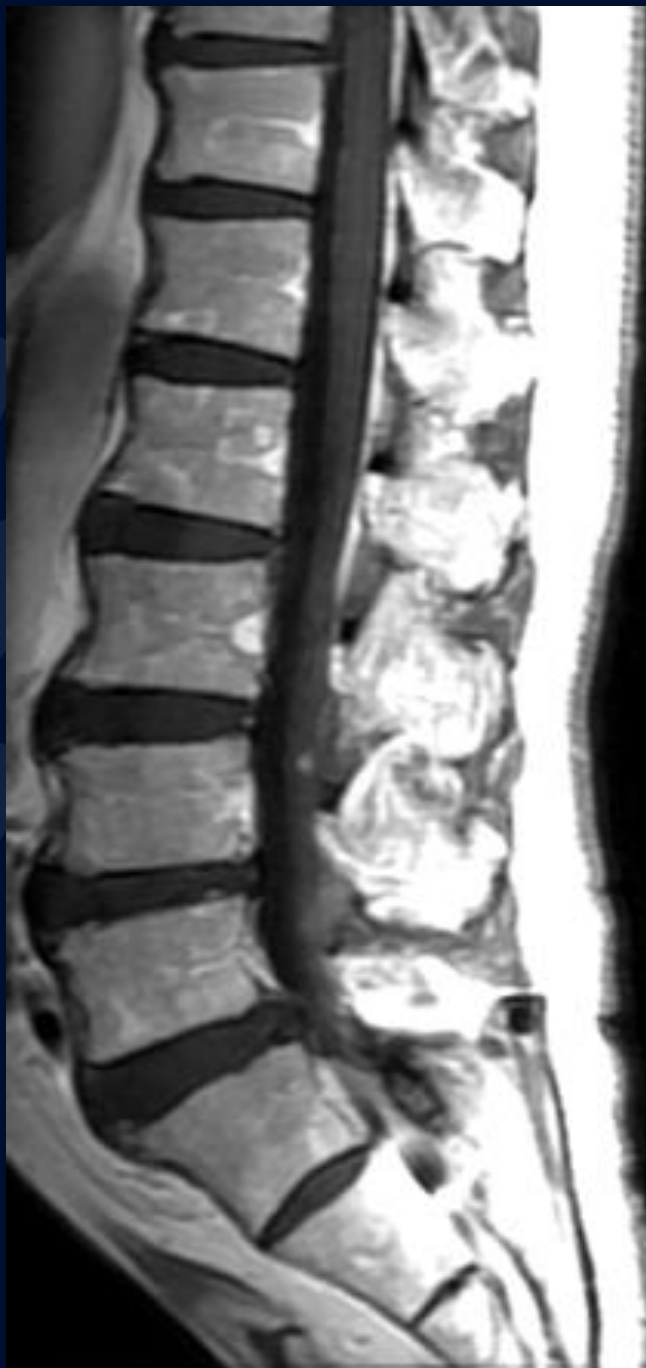


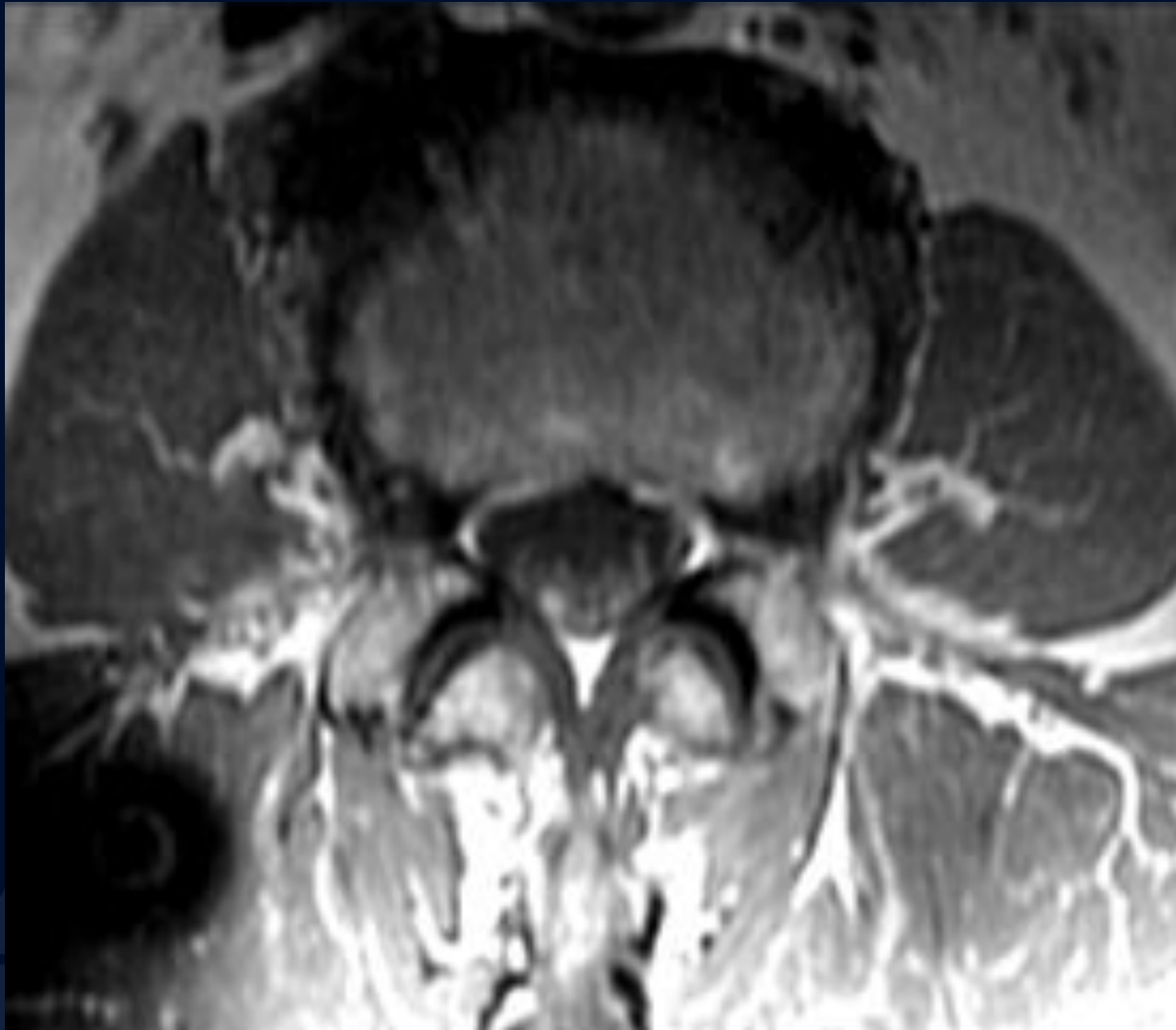
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide, partially overlapping the text.

76 y/o male
with carcinoma of the Lung
for metastatic disease evaluation

Bogdan Lazurenko, BSc
Leo Wolansky, MD

T1-Gd



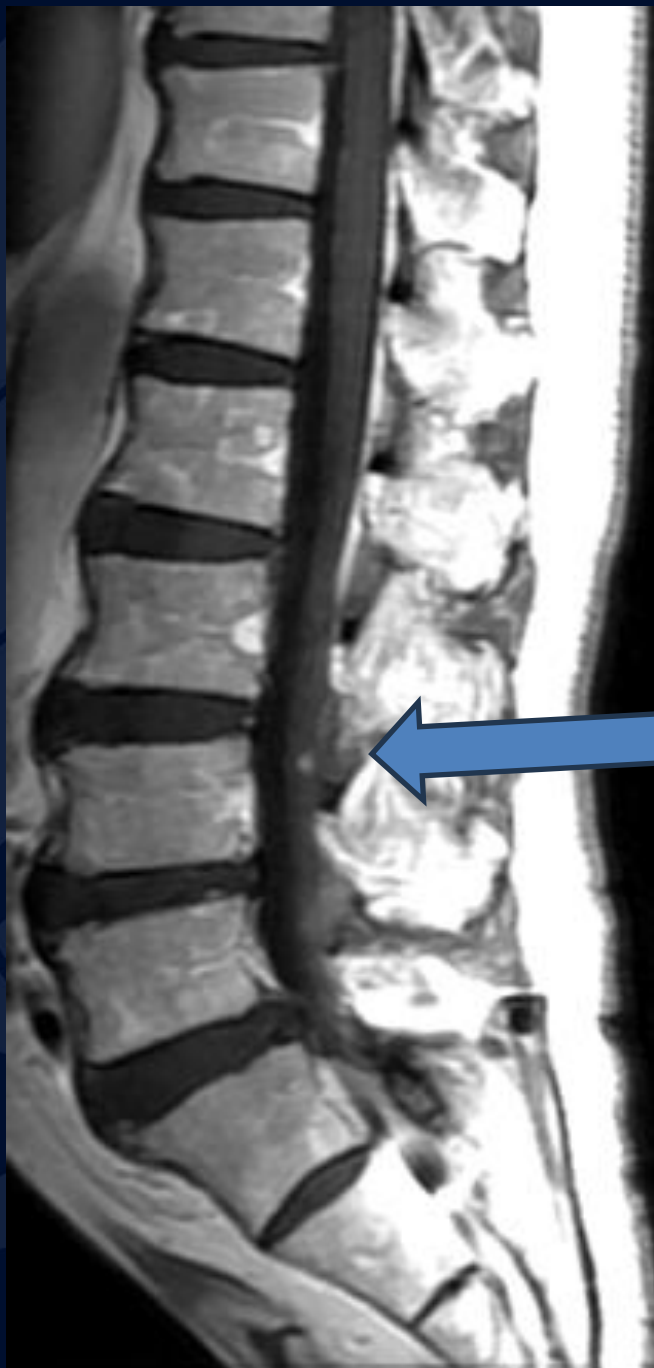


T1-Gd

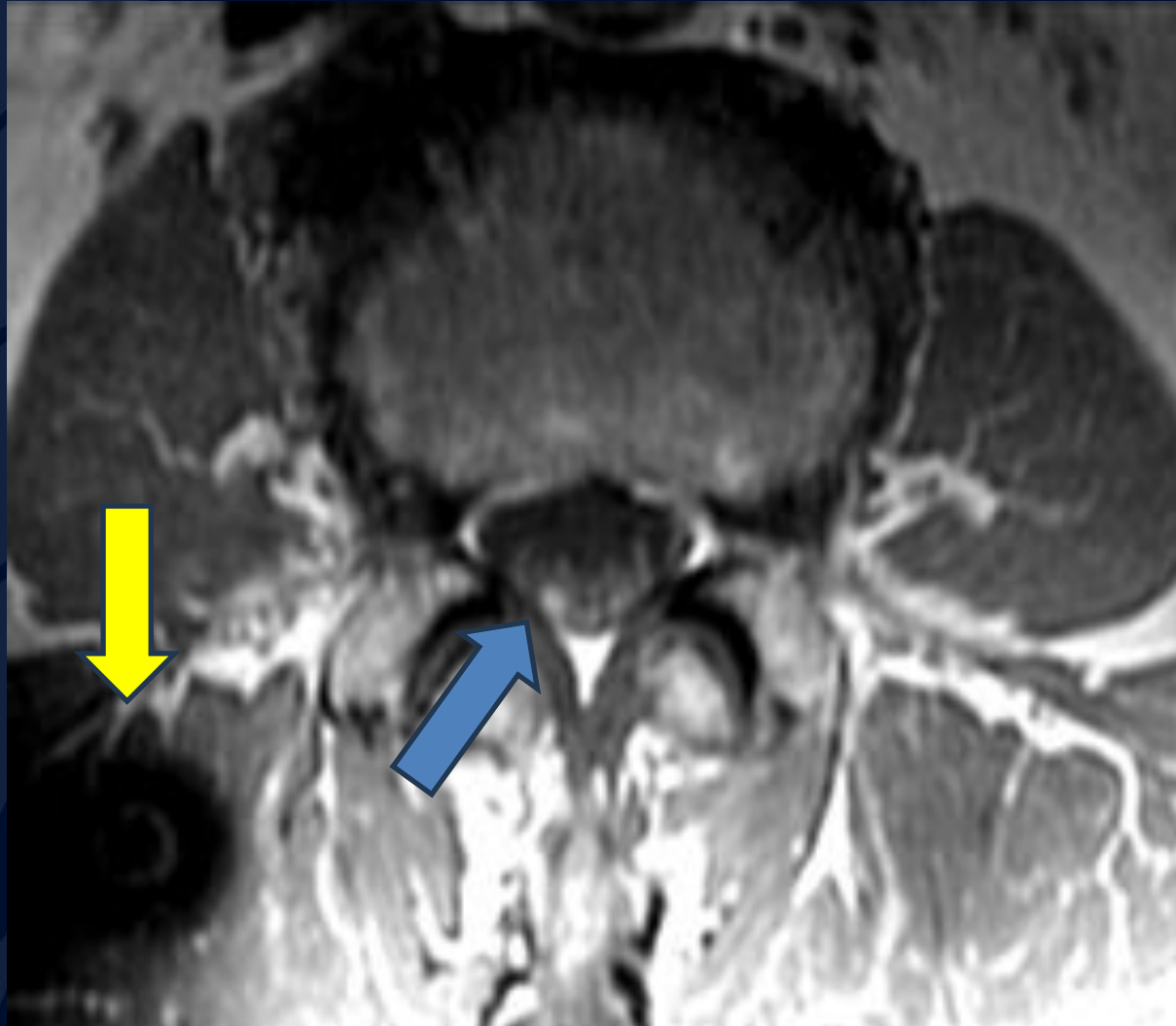
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide.

Dx?

Spinal Leptomeningeal Metastasis



Enhancing nodule is
seen within the
cauda equina (arrow)



Enhancing nodule is seen within the cauda equina (blue arrow). Unrelated susceptibility artifact (yellow arrow)

Leptomeningeal Metastasis

- Leptomeningeal metastasis (LM), also called neoplastic meningitis, is characterized by dissemination of tumor cells within the leptomeninges and subarachnoid space.
- It may be described by the primary tumor type as carcinomatosis, gliomatosis, or lymphomatosis.

Epidemiology of Spinal LM

- Around 10% of patients with metastatic cancer will develop LM during the course of the disease.
- Demographics: more prevalent in older patients due to higher cancer incidence with age.
 - LM rates don't differ based on race or gender.
- Mortality:
 - No therapy: median survival is 4-6 weeks
 - Therapy: median survival is 2-6 months
 - depends on predisposing cancer

Spinal LM Predisposing Cancers

- Solid tumors: breast cancer, lung cancer, gastrointestinal cancer, and melanoma.
- Hematologic cancers: non-Hodgkin's lymphoma (NHL), acute lymphoblastic leukemia (ALL), and multiple myeloma.
- Primary CNS cancers: medulloblastoma, glioblastoma, ependymoma, pineoblastoma, primitive neuroectodermal tumor (PNET) or primary CNS lymphoma.

Spinal LM Signs and Symptoms

- Presentation:
 - Headache (positional; raised ICP)
 - Radicular pain (neck, back, extremities)
 - Diplopia/visual disturbance (CN II, III, IV, & VI)
 - Gait instability
 - Mental status change (confusion, lethargy)
 - Urinary retention or incontinence
 - (cauda equina syndrome)
 - Facial numbness or hearing loss (CN V, VIII)

Spinal LM vs. Schwannoma

How to differentiate:

- Is CSF cytology malignant?
 - No → Schwannoma
 - Yes → LM
- How do the lesions grow over time?
 - Slow growth, little change → Schwannoma
 - Rapid growth, multifocal within weeks → LM
- MRI Presentation:
 - Generally rounded, oval → Schwannoma
 - Nodular or linear along CSF paths → LM
- Biopsy: gold standard for diagnosis

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