

41-year-old male with non-traumatic neck and left arm pain

Maxwell Trudeau, MS3

Non-contrast CT

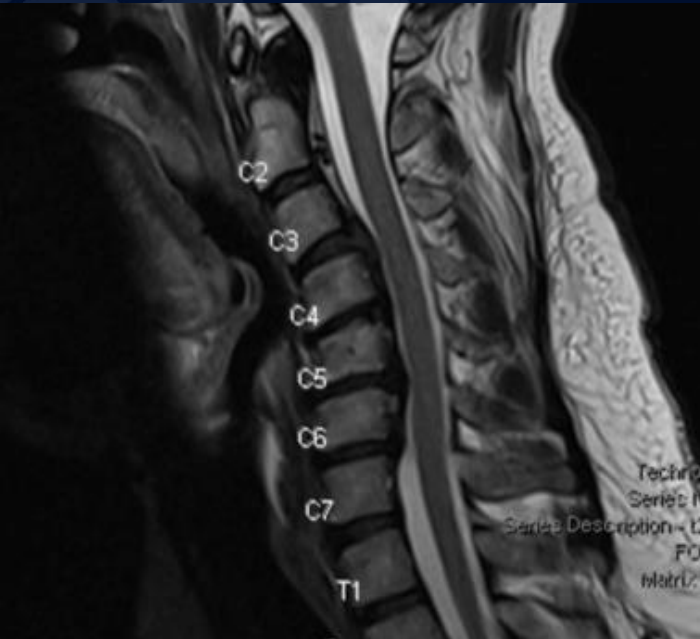


Sagittal

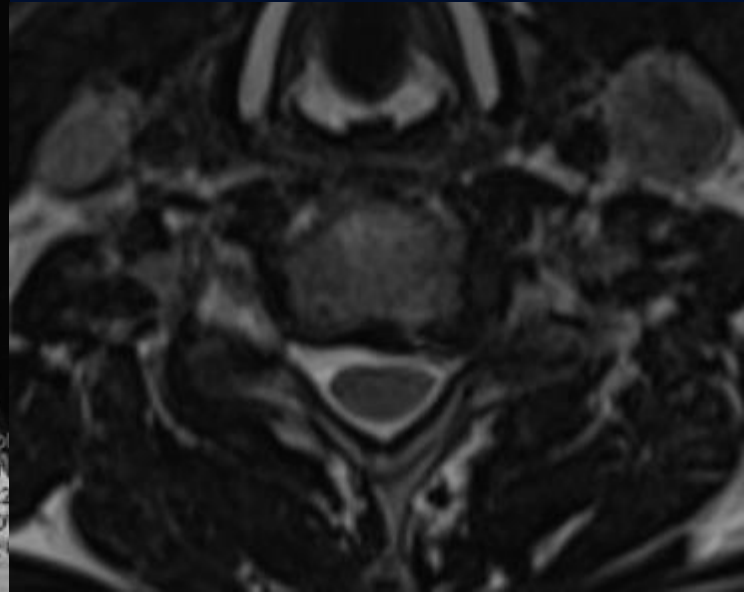


Axial

Non-contrast T2




Sagittal



Axial

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

?

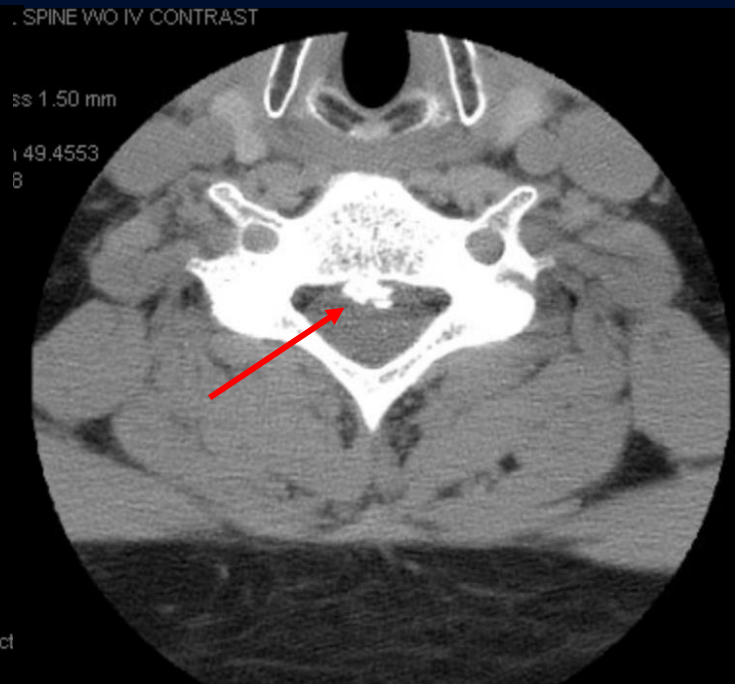
A large, stylized graphic of an oak leaf in a dark blue color, positioned on the left side of the slide.

Ossification of the Posterior Longitudinal Ligament (OPLL)

Non-contrast CT



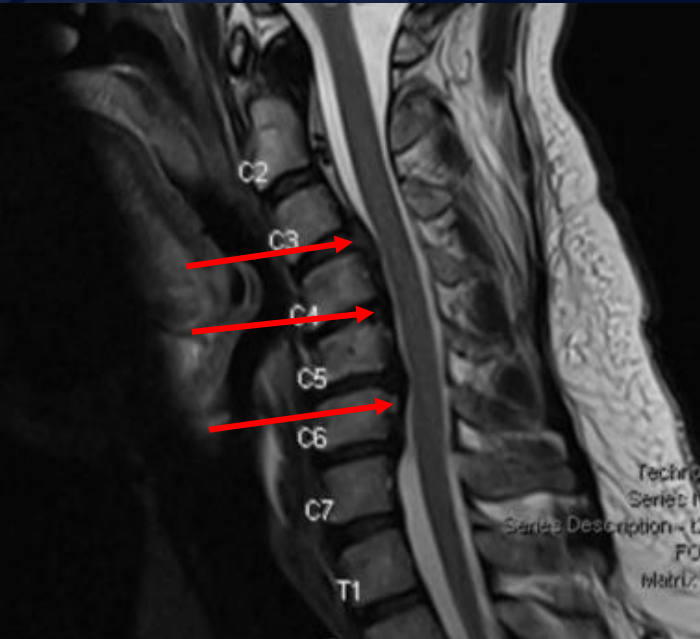
Sagittal



Axial

Calcification of the posterior longitudinal ligament

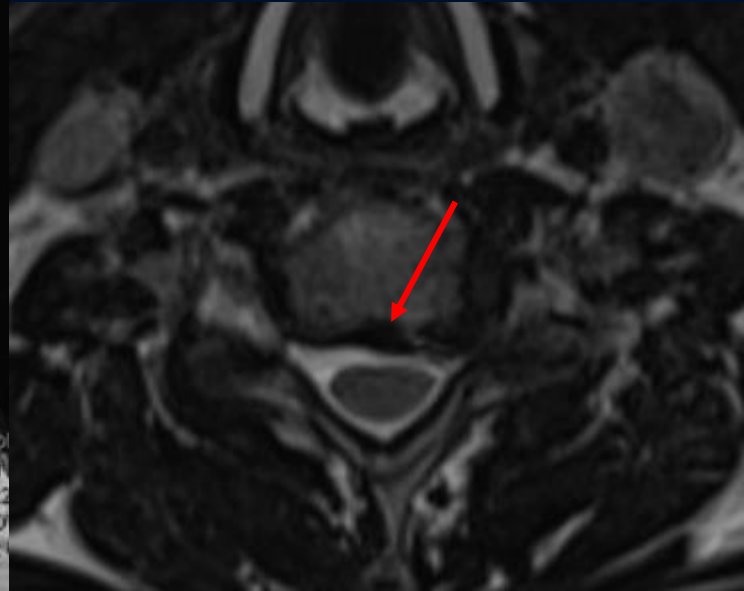
Non-contrast T2



Sagittal

Loss of the normal cervical lordosis

Hypointense thickening of the posterior longitudinal ligament resulting in compression of the epidural space and spinal cord



Axial

Ossification of the Posterior Longitudinal Ligament (OPLL)

Idiopathic cervical spine anomaly that most commonly affects the cervical spine and results in cervical myelopathy

- **Pathophysiology**

- Calcification and hardening of the posterior longitudinal ligament leading to compression of the spinal cord and nerves

- **Clinical presentation**

- Middle to older aged adults
- Asian decent
- Associated with diabetes, hypertension or obesity
- Neck or back pain, numbness or weakness in arms or legs; difficulty with coordination and balance

- **Differential diagnosis:** bone spurs/osteophytes, herniated disc, ligamentum flavum hypertrophy (or ossification), spondylolisthesis

- **Treatment**

- Observation if symptoms are minimal
- Patients with myelopathy require surgical decompression and stabilization

References

- Moore DM. Ossification of Posterior Longitudinal Ligament. Orthobullets. 2022.
<https://www.orthobullets.com/spine/2046/ossification-posterior-longitudinal-ligament>
- Matsunaga S, Sakou T. Ossification of the posterior longitudinal ligament of the cervical spine: etiology and natural history. Spine (Phila Pa 1976). 2012 Apr 20;37(9):E478-83.
- Doi T, et al. Risk factors for progression of ossification of the posterior longitudinal ligament in asymptomatic subjects. Journal of Neurosurgery. 2020;33(3):316-322.