

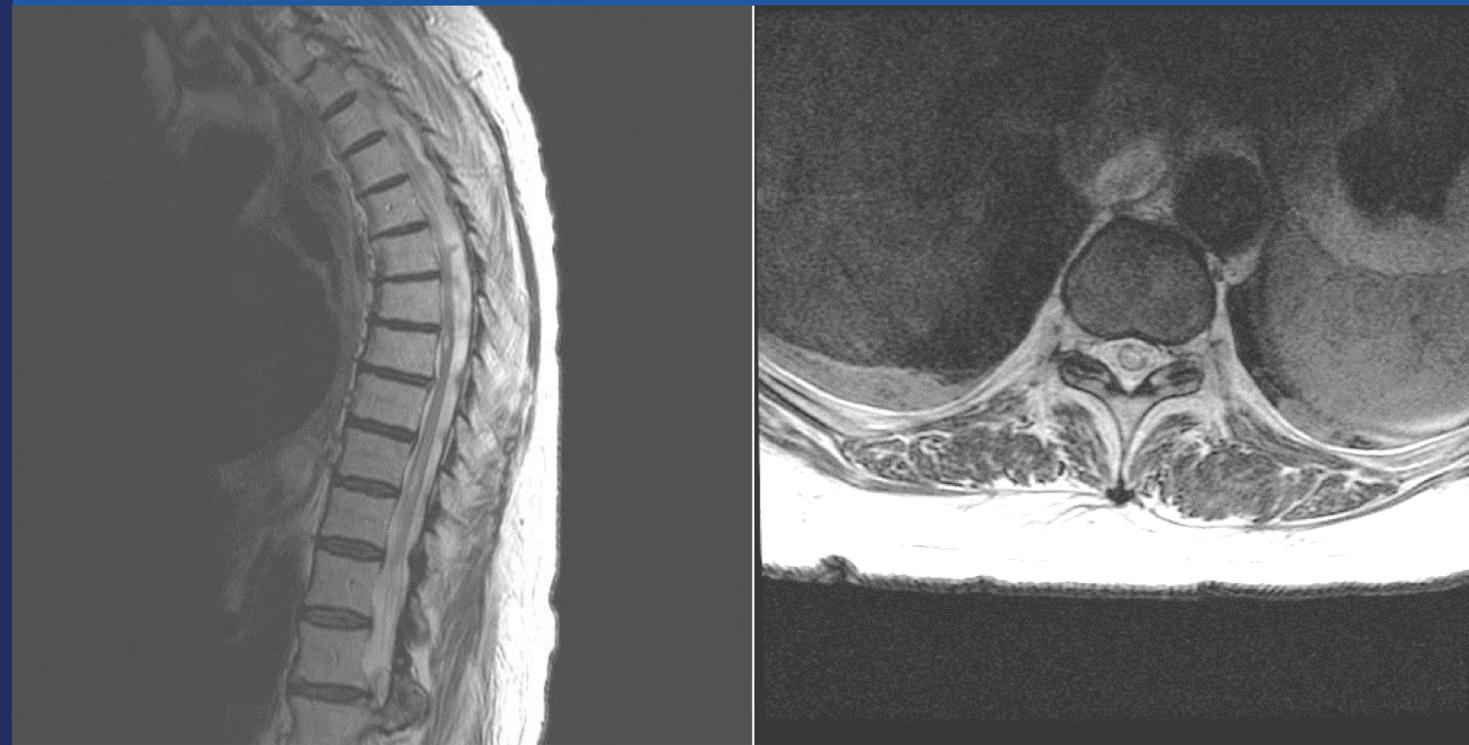
# Zoster-Associated Transverse Myelitis: A Case Report

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## Case Report

- A 78-year-old woman with a history of lymphoma in remission presented to a local emergency department for a 4-week history of progressive low back and left leg pain with associated left leg weakness, left anterior thigh rash, and urinary retention.
- She was emergently transferred to the nearest tertiary care hospital, where a lumbar MRI showed moderate central canal stenosis.
- Neurosurgery elected to proceed with urgent L2-4 decompression, given a clinical concern for cauda equina syndrome.
- The patient's pain improved following surgery. However, follow-up MR imaging revealed multifocal longitudinal T2 hyperintense lesions throughout the thoracic spine.
- Lumbar puncture with CSF analysis showed elevated total nucleated cells, elevated protein, and positive varicella zoster virus PCR.
- She was diagnosed with zoster-associated transverse myelitis. IV acyclovir treatment was initiated, with eventual transition to PO valacyclovir.
- The patient transferred to inpatient rehabilitation and successfully discharged home after a two-week stay. At the time of dismissal from the rehabilitation unit, she was ambulating with a front-wheeled walker and AFO. Her urinary retention was improving.
- Upon follow-up several weeks later, the patient was ambulating with a single-pronged cane.

## Imaging



Above: MRI images demonstrate multifocal longitudinal mildly-enhancing T2 hyperintense processes throughout the lower thoracic cord.

## Discussion

- Paresis is a well-known complication of herpes zoster. On a review of 49 patients with Zoster-Associated Limb Paresis (ZALP) by Jones et al., the causes were radiculopathy (37%), plexopathy (41%), mononeuropathy (14%) and radiculoplexus neuropathy (8%).<sup>1</sup> Localization to the spinal cord is rare, especially in immunocompetent individuals, with few case reports describing zoster-associated transverse myelitis.<sup>2</sup>

## Conclusion

- Multiple complications of herpes zoster can occur, including post-herpetic neuralgia and zoster-associated limb paresis. ZALP is most commonly caused by radiculopathy or plexopathy but can also manifest as myelitis. It is important to recognize this rare condition, as antiviral agents combined with a comprehensive multidisciplinary rehabilitation program can significantly improve functional outcomes

## References

- 1: Jones LK Jr, Reda H, Watson JC. Clinical, electrophysiologic, and imaging features of zoster-associated limb paresis. *Muscle Nerve*. 2014 Aug;50(2):177-85. doi: 10.1002/mus.24141. Epub 2014 May 14. PMID: 24638224.
- 2: Lee JE, Lee S, Kim KH, et al. A Case of Transverse Myelitis Caused by Varicella Zoster Virus in an Immunocompetent Older Patient. *Infect Chemother*. 2016;48(4):334-337. doi:10.3947/ic.2016.48.4.334