Longitudinally Extensive Transverse Myelitis due to Neurosyphilis and Disseminated Varicella: A Case Report

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Case History

30-year old male w/ no PMH presented to ED with BLE weakness and paresthesias. MRI thoracic and lumbar spine showed changes throughout the entire cord with diffuse enhancement into the subarachnoid space and leptomeningeal enhancement along the conus. CSF returned positive for varicella and syphilis. Other workup returned positive for AIDS, mycobacterium avium pulmonary nodules, and rectal chlamydia. Physical exam consistent with T11 ASIA B.

Physical Examination

General Appearance: Young adult African-American male in NAD.

Neuro/Musculoskeletal: EOMI. No sensation to light touch or pinprick below T11.

1 strength at bilateral hip flexors, 0 strength in bilateral L3-S1 myotomes, and no sensation below T11

Differential Diagnoses

- 1) Multiple Sclerosis
- 2) Transverse Myelitis
- 3) Peripheral Neuropathy

Imaging: MRI Spine



Radiology Report

Extensive but somewhat patchy abnormal signal throughout entire visualized cord with diffuse enhancement in the subarachnoid space. Leptomeningeal enhancement extends along the conus and into the cauda equina nerve roots.

Discussion

This is a rare case of transverse myelitis in the setting of AIDS, neurosyphilis, and disseminated varicella. Neurodiagnostic imaging and labs were consistent with syphilitic meningocele myelitis and VZV myelitis. Longitudinally extensive transverse myelitis refers to complete or incomplete spinal cord dysfunction with MRI lesion extending beyond 3 vertebral segments as was present in this patient. Neurosyphillis and VZV are rare causes for transverse myelitis, with few cases published in literature and especially of both.

Outcome/Treatment

He was discharged from acute care at a MaxA level for transfers and bed mobility. Due to various reasons, he was admitted to inpatient rehab 7 months after initial presentation. He had significant improvement in BLE strength and was discharged at an independent level for ambulation, bathing, dressing, and feeding.

Conclusion

Reported cases of syphilis in 2018 reached their highest since 1991. Physiatrists should remain vigilant for transverse myelitis associated with STIs as well as management of associated infections. Rehabilitation goals should be targeted for deficits corresponding to spinal cord injury levels.

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References

Dumaresq J, Langevin S, Gagnon S, et al. Clinical prediction and diagnosis of neurosyphilis in HIV-infected patients with early Syphilis. J Clin Microbiol 2013; 51:4060.

Krishnan C, Kaplin AI, Pardo CA, et al. Demyelinating disorders: update on transverse myelitis. Curr Neurol Neurosci Rep 2006; 6:236.

